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WITHIN THE CODE ADMINISTRATION INDUSTRY

# IAPMO TRAINING CATALOG



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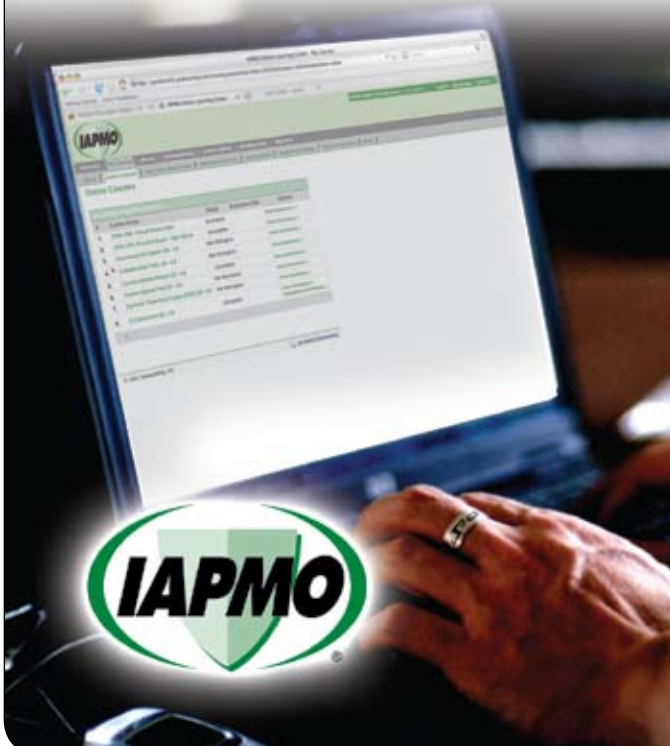


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IAPMO offers comprehensive education and training resources that meet the growing needs of large or small jurisdictions and many occupations in our industry:

- Plumbing and Mechanical Inspectors
- Combination Inspectors
- Contractors, Plumbers, Installers
- Plumbing and Mechanical Plans Examiners
- Chief Building Officials
- Builders
- Engineers
- Architects

We train large, small groups, and even one individual at a time utilizing our extensive library of courses including past editions and local codes.

Our curriculum is developed by members of IAPMO's Education and Training Committee in close partnership with professional curriculum developers. Each member of this committee is carefully selected and appointed by IAPMO's Board of Directors. These highly qualified industry experts act as subject matter experts, technical advisors and reviewers, and uniquely represent the audiences IAPMO serves with its education and training. The members of this committee average 25 or more years of experience in the plumbing and mechanical industries specializing in code enforcement, installation and maintenance, and code consulting.

We are confident you will find our training to be exceptional in quality and unparalleled in value. We look forward to serving you!

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# HIRE IAPMO TO TEACH

IAPMO offers the most reliable training and education programs for the Plumbing and Mechanical codes and is committed to assisting you in all your training needs. Our instructors, who have decades of hands-on experience in their areas of expertise, serve as great resources for facilitating discussions on current issues, problem installations and enforcement – always providing solutions in practical terms.

Turn to IAPMO for training that is cost effective, interactive and presents the most up-to-date information to meet the needs of today's industry professionals.

For more information on how to contract a seminar or any other education related inquiry please contact:

**Maria Sol Alba**, *Training and Education Manager* at [sol.alba@iapmo.org](mailto:sol.alba@iapmo.org).



## **To Contract Training**

Toll Free: 1-877-IAPMO-01  
(1-877-427-6601) Ext. 3005  
Direct line: (708) 995-3005  
E-mail: [career.services@iapmo.org](mailto:career.services@iapmo.org)

## **For Seminar Registration**

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Direct line: (708) 995-3005  
E-mail: [career.services@iapmo.org](mailto:career.services@iapmo.org)

## **For Backflow Prevention Registration**

Toll Free 1-877-IAPMO-01  
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Direct Line: (708) 995-3007  
E-mail: [career.services@iapmo.org](mailto:career.services@iapmo.org)

## **For Online Learning Center**

Toll Free: 1-877-IAPMO-01  
(1-877-427-6601) Ext. 3008  
Direct line: (708) 995-3008  
E-mail: [onlinelearning@iapmo.org](mailto:onlinelearning@iapmo.org)

## **For Assistance with Online Career Center (Job Bank)**

Toll Free: 1-800-85-IAPMO  
Direct line: (909)472-4211  
E-mail: [alan.wald@iapmo.org](mailto:alan.wald@iapmo.org)

## 100 Level – Essential Series

**Student competency level:** Entry

Seminars in this series focus on the basic “nuts and bolts” of the code. Information is presented in an introductory manner for participants who are new to the code or are looking for a refresher seminar. Participants should walk away from the seminar with a greater understanding of how the code is organized, how to apply it and with a better understanding of its key concepts and provisions.

## 200 Level – Application Series

**Student competency level:** Intermediate to Advanced

Seminars in this series are taught in a “how-to” format. Rather than teaching basic code concepts, these seminars teach participants how to apply code concepts in the performance of their jobs. For example, an application level seminar may provide practices designed to help a student to perform inspections, plan reviews, or certain types of calculations.

## 300 Level – Focus Series

**Student competency level:** Intermediate to Advanced

These seminars build upon the content covered in the Essential Series by targeting more specific code topics. Rather than covering the basics of an entire code in a single seminar, these seminars focus on specific aspects of a code and expand upon it comprehensively.

## 400 Level – Code Changes Series

**Student competency level:** All

Update series seminars discuss important code changes from one code edition to another. The instructor discusses where code changes have taken place and their significance.

## 500 Level – Professional Series

**Student competency level:** All

Professional series seminars consist of non-technical administrative, management and soft skills training. They cover topics that affect code enforcement and other code users, but do not directly relate to any specific code. Seminars in this series focus on developing individuals as professionals and developing skills and concepts that will enable the students to better perform their jobs or prepare them for advancement.

*\* Note: Several series have seminars in development. Check IAPMO's website often to see if new seminars have been added that fit your needs. We are continually striving to add new topics.*

## THE FRONT LINE — Get to know IAPMO's Instructors



### Dr. Stuart Asay, P.E.

Dr. Stuart F. Asay, P.E., is the founder and director of the Backflow Prevention Institute (BPI) and has been teaching backflow prevention classes since 1984. He founded the BPI in 1987. A registered professional engineer in Colorado, New Mexico, Utah, Wyoming, Texas, Arizona and Oklahoma, Stu helped write and create the Department of Public Health & Environment's Colorado Primary Drinking Water Regulations, Article 12: Hazardous Cross-Connections. Stu is a voting member of the American Water Works Association (AWWA) Backflow Preventer standards committee and created the only internationally written, monthly industry publication, Drinking Water and Backflow Prevention magazine. He is a certified plumbing inspector through IAPMO and ICC for 23 years.



### Darrell Boger

Darrell Boger has been the Director of Code Enforcement for the City of Park City, Kansas for the last five years and has been employed as a combination inspector for over twenty years. Darrell is a Master Mechanical artisan and was a licensed Mechanical contractor for twelve years. Darrell is also a Certified Mechanical Inspector, Certified Plumbing Inspector, Certified Combination Inspector, Certified Electrical Inspector, Certified Building Inspector, Certified Plans Examiner, States of Kansas and Iowa Certified Codes Instructor, Certified Disaster Assessment Inspector, Certified Backflow Tester, Chairman of the South Central Kansas Chapter of IAPMO, and has over 40 years in the construction industry.



### Tim Collings

Tim Collings is the senior inspector for Salt Lake City Corporation. He has been inspecting plumbing, mechanical and fire protection systems for Salt Lake City Corporation since August 1981. Tim taught in the plumbing apprenticeship program in Salt Lake City for 18 years. Tim's instruction is supported by a solid background that combines professional experience with a wide variety of committee service.



### Roger Courtney

Roger Courtney, retired chief plumbing and mechanical inspector for the municipality of Anchorage, Alaska, has acquired over 35 years of professional experience in the plumbing and mechanical fields. That experience extends from field work to supervision to inspection. Roger offers students the benefit of his many years of experience and expertise, coupled with a dry sense of humor.



### Pennie Feehan

Pennie L. Feehan was a certified welder and pipe fitter, Chief Plumbing and Mechanical Inspector for the City of Oakland in California. She has been an instructor for IAPMO for over 10 years teaching the UPC, UMC, IPC, IMC, and Special Seminars covering DWV systems and Water and Gas sizing. Her dedication, knowledge, and long experience in the plumbing and mechanical industry serve her well as an educator.



### Roger Fuller

Roger Fuller currently serves the County of Sacramento as a Supervising Building Inspector for Plumbing and Mechanical Inspections. His 34+ years of experience include 11 years as a HVAC installer and estimator, 11 years as a HVAC contractor and 12+ years as an inspector/plan reviewer. His contracting experience is infused in his teaching style to make his classes both interesting and applicable.



### John Jordan, Jr.

John Jordan Jr. has been involved in the plumbing industry in the Houston, Texas area since 1976. John has been an instructor for HAPJAC for UA Plumbers Local #68 in Houston, Texas since 1995. In addition John teaches for the Institute of Continuing Education for license renewal of all State of Texas plumbing licenses. John is available to teach the Uniform Plumbing Code®, the Uniform Mechanical Code® and the International Plumbing Code®. Due to his many years of teaching experience, John is very comfortable teaching a variety of topics to different audiences.

For building, fire and electrical seminars, instructor bios are available upon request.



## THE FRONT LINE — Get to know IAPMO's Instructors

### Michael Mitchell

Michael Mitchell has served as the Senior Plumbing Inspector for the City of San Francisco and has been with the City since 1990. Additionally, Michael has spent five years as an instructor at the California Plumbing Code College of San Mateo. Also, since 2002, he has been an instructor teaching the California Plumbing Code and Trade Math for Local 467. Michael is a consummate professional in everything he does and this professionalism is always well-received in the classroom.



### Dan Rademacher

Daniel Rademacher, currently employed as a Mechanical Engineering Designer III specializing in plumbing design and quality control for a national architect and engineering firm. He was the Chief Plumbing/Mechanical Inspector for the Montana Building Codes Bureau. He has 10 years of experience plumbing/mechanical (HVAC) installations for code compliance.

- NITC certified M2 Medical Gas Inspector
- ASSE certified Backflow Protection Assembly Tester
- ASSE certified Backflow Protection Assembly Tester Instructor
- ASSE certified Cross Connection Surveyor
- ASSE certified Cross Connection Surveyor Instructor

He is the Journeyman and Apprentice Instructor for Local 41. A member of American Society of Plumbing Engineers and the IAPMO Career Services Committee.



### Bart Mormino

Bart Mormino is a self-employed residential and commercial inspector in Covington, La., with 31 years experience as an inspector and master plumber. Bart has been in the plumbing and construction business since 1972. He started as a plumber apprentice in Metairie, La., and eventually became the Chief Plumbing Inspector for St Tammany Parish. Bart also spent 9 years with Amtrak working on and inspecting diesel locomotives while running his own plumbing business. Currently, Bart is the Plumbing Inspector for the Cities of Mandeville and Madisonville, La. and is AHIT (American Home Inspectors Training) certified as a Home Inspector and ICC Certified in plumbing inspection and Plan Review. He holds License #10465 with the Louisiana State Board of Home Inspectors, a Master Plumbers License with the state of Louisiana and is a continuing education instructor for PHCC (Plumbing- Heating- Cooling Contractors Association) for Louisiana Journeyman and Master Plumbers. Bart's various career experiences allow him to bring a well rounded wealth of practical knowledge to the classroom.

### Phil Ribbs

Phil Ribbs has enjoyed a long and varied career. He was on IAPMO's Board of Directors and held the office of vice president. His efforts were recognized when he was given the Government Person of the Year Award in 2004. Phil is a dynamic and extremely well informed instructor. He has the gift of presenting information in a way that is interesting and easy to understand.



### David Straub

David Straub currently serves the city and county of Denver as a plumbing inspector. His 28 years of plumbing experience encompass work as an apprentice, journeyman, foreman and private contractor. For the past 11 years, he has been an instructor for apprentice and journeyman plumbers. David is a certified UA plumbing instructor and has spent 4 years as an instructor at the UA Instructor Training Program. David's experience and strong background in instruction come across in his presentation of materials and subject matter.



### Richard Vrana

Richard Vrana currently serves the city of Houston, Texas, as division manager of the Mechanical Inspection Section. He has 23 years of knowledge as a Sheet Metal Worker with Local #54 in Houston, which encompassed work as an apprentice, journeyman and foreman. He has 17 years of experience in Mechanical Code Enforcement. Richard has significant familiarity in the specific demands of high-rise office buildings, medical professional buildings, complex hospital systems, industrial plants and schools. As a leader in large city departments, he brings to the classroom additional expertise in the areas of personnel supervision and developing cooperative relationships with customers and other team members.

Richard communicates practical application to his students based on actual jobsite experience and conditions.

## Essential Series — 100 Level

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### **2012 UPC Essentials**

**Length:** 1 day

Providing a fundamental understanding of the *Uniform Plumbing Code*® (UPC), this seminar offers participants an opportunity to learn the basics of the 2012 UPC. Each chapter is covered in an easy-to-understand way that supplies the “need to know” information required to successfully understand and apply the provisions of that chapter. The 2012 edition of UPC includes a total revision to Chapter 16 and new Chapter 17 that will be highlighted in this seminar.

**UPC 101 (12)**

### **2009 IPC Essentials**

**Length:** 1 day

This seminar provides a general overview of the *2009 International Plumbing Code*. Students will walk away from the seminar with a greater understanding of how the code is organized, how to apply it and with a better understanding of its key concepts and provisions. Topics covered will include, but are not limited to, definitions, general regulations, fixtures and fittings, water heaters, water supply and distribution, drainage, vents, and traps and interceptors.

**IPC 101 (09)**

### **2009 UPC Essentials**

**Length:** 1 or 2 days

This seminar provides a general overview of the *2009 Uniform Plumbing Code*®. Students will walk away from the seminar with a greater understanding of how the code is organized, how to apply it and with a better understanding of its key concepts and provisions. Topics covered will include, but are not limited to, definitions, general regulations, fixtures and fittings, water heaters, water supply and distribution, drainage, vents, and traps and interceptors.

**UPC 101 (09)**

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

### **2006 UPC Essentials**

**Length:** 1 or 2 days

This seminar provides a general overview of the *2006 Uniform Plumbing Code*®. Students will walk away from the seminar with a greater understanding of how the code is organized, how to apply it and with a better understanding of its key concepts and provisions. Topics covered will include, but are not limited to, definitions, general regulations, fixtures and fittings, water heaters, water supply and distribution, drainage, vents, and traps and interceptors.

**UPC 101 (06)**

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

### **2009 UPC Ultimate Essentials**

**Length:** 4 days

This seminar provides an extensive, in-depth look at the *Uniform Plumbing Code*® that discusses the code and its provisions from cover to cover. Each chapter is covered in great detail while presenting code concepts and provisions in an easy to understand manner. Students will walk away from the seminar with a greater understanding of how the code is organized, how to apply it and with a better understanding of its key concepts and provisions. Topics covered will include, but are not limited to, definitions, general regulations, fixtures and fittings, water heaters, water supply and distribution, drainage, vents, and traps and interceptors.

**UPC 102 (09)**

### **2006 UPC Ultimate Essentials**

**Length:** 4 days

This seminar provides an extensive, in-depth look at the *Uniform Plumbing Code*® that discusses the code and its provisions from cover to cover. Each chapter is covered in great detail while presenting code concepts and provisions in an easy to understand manner. Students will walk away from the seminar with a greater understanding of how the code is organized, how to apply it and with a better understanding of its key concepts and provisions. Topics covered will include, but are not limited to, definitions, general regulations, fixtures and fittings, water heaters, water supply and distribution, drainage, vents, and traps and interceptors.

**UPC 102 (06)**

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

## Essential Series — 100 Level

### 2006 IPC Essentials

IPC 101 (06)

**Length:** 1 day

This seminar provides a general overview of the 2006 *International Plumbing Code*. Students will walk away from the seminar with a greater understanding of how the code is organized, how to apply it and with a better understanding of its key concepts and provisions. Topics covered will include, but are not limited to, definitions, general regulations, fixtures and fittings, water heaters, water supply and distribution, drainage, vents, and traps and interceptors.

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

## Application Series — 200 Level

### 2009 UPC Commercial Plumbing Inspections

UPC 201 (09)

**Length:** ½ day

This seminar is a "how-to" discussion of plumbing inspections for commercial buildings. Participants will learn the fundamental steps and processes in performing this type of inspection while also learning numerous tips and techniques to help inspections be more thorough and accurate. Participants are also advised of potential pitfalls they may encounter in the field so they can be avoided. For inspectors, this seminar offers a rewarding learning experience that will assist in the proper administration of the code. For contractors, this seminar offers a great opportunity to learn what to expect when the inspector arrives on site.

Upon completion of this seminar, participants will be better able to adequately perform commercial plumbing inspections while onsite as well as locate and cite provisions pertaining to the inspection.

### 2009 UPC Residential Plumbing Inspections

UPC 202 (09)

**Length:** ½ day

This seminar is a "how-to" discussion of plumbing inspections for residential buildings. Participants will learn the fundamental steps and processes in performing this type of inspection while also learning numerous tips and techniques to help inspections be more thorough and accurate. Participants are also advised of potential pitfalls they may encounter in the field so they can be avoided. For inspectors, this seminar offers a rewarding learning experience that will assist in the proper administration of the code. For contractors, this seminar offers a great opportunity to learn what to expect when the inspector arrives on site.

Upon completion of this seminar, participants will be better able to adequately perform residential plumbing inspections while onsite as well as locate and cite provisions pertaining to the inspection.

## Medical Gas Installer Training and Certification

Medical Gas Installer certification requires a minimum of 32 hours of combined classroom and practical training. Individuals who have not previously passed a copper brazing class may require extensive brazing practice. The training will end with a written and proctored brazing test with National ITC Corp.

### 32-Hour Program Training

The IAPMO Instructors teach in a interactive lecture format. Each instructor employs their own blend of professional experience and subject matter expertise to create a unique teaching style. The primary instructional tool is a comprehensive Power Point presentation that supplements the lecture.

Upon completion of the general content of the seminar, a summary and review period will be provided to allow participants an opportunity to ask questions of the instructor. The medical gas installer/brazer certification examination consists of two portions: a proctored, closed book multiple-choice written examination with one hundred (100) questions and a brazing examination.

Candidates must answer seventy five percent 75% of the questions correctly on the written portion to achieve a passing grade. The written portion is based on information contained in the NFPA 99C, NFPA 55, and the ASSE Series 6000 Standard 6010. Both the written and brazing portions of this examination and their continuities must be registered through NITC to maintain a valid certification.

For the brazing portion of the examination, candidates must successfully pass a brazing examination in accordance with the American Society of Mechanical Engineers (ASME) Section IX, Welding and Brazing Qualifications Standard. The brazing portion of the medical gas installer's certification requires that the candidate braze two joints of a horizontal coupling and two up-flow joints of a vertical coupling. The copper tube shall be 1-1/2" NPS (Type "L") and the coupling shall be 1-1/2" standard "stop" coupling. The braze coupons are examined by American Welding Society (AWS) certified welding inspectors (CWI's) to the ASME section IX brazing performance qualification standard.

## Coming Soon!

- 2012 UPC Ultimate Essentials
- 2012 IPC Essentials

# PLUMBING SEMINARS

## Focus Series — 300 Level

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### 2012 UPC DWV Provisions

UPC 307 (12)

**Length:** ½ or 1 day

A plumbing system relies on the interconnected drain, waste, and vent systems (DWV) in order to operate efficiently and safely. This seminar provides a detailed review and discussion of the DWV requirements in the *Uniform Plumbing Code*® (UPC). The provisions in the 2012 UPC that govern the proper installation and design of DWV systems will be discussed. In-depth demonstrations on how to properly size DWV systems according to the UPC will take place with several opportunities to practice sizing those systems.

Upon completion of this seminar, participants will be better able to locate and enforce code provisions pertaining to DWV systems as well as describe the basic concepts and code requirements for DWV installations. Participants will also be better able to properly size DWV systems.

### 2009 UPC DWV Provisions

UPC 301 (09)

**Length:** ½ or 1 day

This seminar provides a detailed review and discussion of the various drain, waste, and vent requirements in the *Uniform Plumbing Code*®. Topics covered in this seminar include, but are not limited to: Use of joints, drainage fixture units, installation and sizing of building sewers, sumps & sewage ejectors, indirect waste piping, chemical waste, steam and hot water drainage, condensers and sumps, vent sizing and termination, island venting, combination waste and vent, and wet vents.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to drains, waste, and vents as well as describe the basic concepts and code requirements for DWV installations.

### 2009 UPC Fuel Gas Provisions

UPC 303 (09)

**Length:** 1 day

This session covers the basics of Gas Pipe Sizing provisions of the *Uniform Plumbing Code*®. Included in the discussion are properties of natural gas, three sizing methods, converting Btu/h to CFH, sizing black steel systems, sizing copper tubing systems, and sizing CSST systems.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to fuel gas as well as describe the basic concepts and code requirements for fuel gas installations.

### 2009 UPC Traps and Interceptors

UPC 304 (09)

**Length:** ½ day

This seminar will assist participants in understanding the new grease interceptors and the necessary criteria for sizing, application, and installation of FOG disposal systems.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to traps and interceptors as well as describe the basic concepts and code requirements for installations of traps and interceptors.

### 2009 UPC Water and Gas Pipe Sizing

UPC 305 (09)

**Length:** ½ or 1 day

This seminar provides participants with how-to instruction on properly sizing water and gas piping systems and their components. Participants will have the opportunity to practice what they learn in this hands-on learning experience. Upon leaving the seminar, participants will be better able to identify the appropriate sizing requirements in the code as well as properly determine the correct pipe sizing for the systems they encounter in the field.

Upon completion of this seminar, participants will be better able to locate and describe the code provisions pertaining to water and gas pipe sizing as well as properly determine the minimum required pipe sizes for a given water or gas pipe installation.

### 2006 UPC DWV Principles & Calculations, Gas & Water Pipe Sizing

UPC 301 (06)

**Length:** 1 or 2 days

This seminar provides a more detailed review and discussion of sizing of drainage systems, cleanouts, slope & change of direction of drainage flow, use of joints, drainage fixture units, installation and sizing of building sewers, sumps & sewage ejectors, indirect waste piping, chemical waste, steam and hot water drainage, condensers and sumps, vent sizing and termination, island venting, combination waste and vent, and wet vents.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to drains, waste, and vents as well as describe the basic concepts and code requirements for DWV installations.

### 2006 UPC Fuel Gas Provisions

UPC 303 (06)

**Length:** 1 day

This session covers the basics of Gas Pipe Sizing provisions of the *Uniform Plumbing Code*®. Included in the discussion are properties of natural gas, three sizing methods, converting Btu/h to CFH, sizing black steel systems, sizing copper tubing systems, and sizing CSST systems.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to fuel gas as well as describe the basic concepts and code requirements for fuel gas installations.

### 2006 UPC Traps and Interceptors

UPC 304 (06)

**Length:** ½ day

This four-hour seminar will assist participants in understanding the new grease interceptors and the necessary criteria for sizing, application, and installation of FOG disposal systems.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to traps and interceptors as well as describe the basic concepts and code requirements for installations of traps and interceptors.

## Code Changes Series – 400 Level

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### 2012 UPC Code Changes

UPC 401 (12)

**Length:** 1 day

Need to know what is new in the 2012 Uniform Plumbing Code (UPC) from the previous edition?

This seminar will walk participants through the important code changes that will have an impact on the plumbing and code enforcement industries. With a completely revised Chapter 16 on Alternate Water Systems and a new Chapter 17 on Rainwater Catchment, participants will be brought up to speed on the most important topics in those chapters.

### 2009 UPC – Code Changes

UPC 401 (09)

**Length:** 1 day

In this seminar, participants will learn about the notable changes between the *2009 Uniform Plumbing Code®* and the 2006 edition. Accordingly, the changes are noted during the seminar and supporting information about the changes is provided. General topics such as administration, definitions and general requirements are covered as well as specific topics that include water heaters, water supply and distribution, traps and interceptors, health care facilities and medical gas, and vacuum systems.

Upon completion of this seminar, participants will be better able to identify and describe the significant code changes that occurred from the previous edition as well as significant additions and deletions from the code.

### 2009 UPC Transition

UPC 402 (12)

**Length:** 1 day

Changing from one plumbing code to another can prove to be a challenge to those who have to apply the code. This seminar provides participants with the information needed to successfully transition to the *2009 Uniform Plumbing Code®* from another published plumbing code. Participants will discover the major differences between the two codes as well as how the differences are applied in the field. Code provisions and concepts that are new to users of will also be addressed and thoroughly discussed. Subtle differences that can have a large impact on the application of the code will be covered as well, allowing code users to correctly apply the 2009 UPC.

### 2009 IPC – Code Changes

IPC 401 (09)

**Length:** 1 day

In this seminar, participants will learn about the notable changes between the *2009 International Plumbing Code* and the 2006 edition. Accordingly, the changes are noted during the seminar and supporting information about the changes is provided. General topics such as administration, definitions and general requirements are covered as well as specific topics that include, but are not limited to water heaters, water supply and distribution, traps and interceptors, and vents.

Upon completion of this seminar, participants will be better able to identify and describe the significant code changes that occurred from the previous edition as well as significant additions and deletions from the code.

### 2006 UPC Cumulative Analysis

UPC 401 (06)

**Length:** 1 day

In this seminar, participants will learn about the notable changes between the *2006 Uniform Plumbing Code®* and the 2003 edition. Accordingly, the changes are noted during the seminar and supporting information about the changes is provided. General topics such as administration, definitions and general requirements are covered as well as specific topics that include water heaters, water supply and distribution, traps and interceptors, and health care facilities and medical gas, and vacuum systems.

Upon completion of this seminar, participants will be better able to identify and describe the significant code changes that occurred from the previous edition as well as significant additions and deletions from the code.

### 2006 IPC Update

IPC 401 (06)

**Length:** 1 day

In this seminar, participants will learn about the notable changes between the *2006 International Plumbing Code* and the 2003 edition. Accordingly, the changes are noted during the seminar and supporting information about the changes is provided. General topics such as administration, definitions and general requirements are covered as well as specific topics that include, but are not limited to, water heaters, water supply and distribution, traps and interceptors, and vents.

Upon completion of this seminar, participants will be better able to identify and describe the significant code changes that occurred from the previous edition as well as significant additions and deletions from the code.

# MECHANICAL SEMINARS

## Essential Series – 100 Level

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### 2012 UMC Essentials

UMC 101 (12)

**Length:** 1 day

Providing a fundamental understanding of the Uniform Mechanical Code (UMC), this seminar offers participants an opportunity to learn the basics of the 2012 UMC. Each chapter is covered in an easy-to-understand way that supplies the “need to know” information required to successfully understand and apply the provisions of that chapter. This seminar focuses on the most important topics covered in the code as well as some important changes that have been made to the code.

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

### 2009 UMC Essentials

UMC 101 (09)

**Length:** 1 or 2 days

This seminar provides a general overview of the *2009 Uniform Mechanical Code*®. Students will walk away from the seminar with a greater understanding of how the code is organized, how to apply it and with a better understanding of its key concepts and provisions. Topics covered will include, but are not limited to, definitions, general requirements, ventilation, exhaust, ducts, combustion air, boilers, and refrigeration.

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

### 2006 IMC Essentials

IMC 101 (06)

**Length:** 1 day

This seminar provides a general overview of the *2006 International Mechanical Code*. Students will walk away from the seminar with a greater understanding of how the code is organized, how to apply it and with a better understanding of its key concepts and provisions. Topics covered will include, but are not limited to, definitions, general requirements, ventilation, exhaust, ducts, combustion air, boilers, and refrigeration.

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

## Coming Soon!

- 2012 IMC Essentials

### 2009 IMC Essentials

IMC 101 (09)

**Length:** 1 day

This seminar provides a general overview of the *2009 International Mechanical Code*. Students will walk away from the seminar with a greater understanding of how the code is organized, how to apply it and with a better understanding of its key concepts and provisions. Topics covered will include, but are not limited to, definitions, general requirements, ventilation, exhaust, ducts, combustion air, boilers, and refrigeration.

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

## Application Series – 200 Level

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### 2009 UMC Commercial Mechanical Inspections

UMC 201 (09)

**Length:** ½ day

This seminar is a “how-to” discussion of mechanical inspections for commercial buildings. Participants will learn the fundamental steps and processes in performing this type of inspection while also learning numerous tips and techniques to help inspections be more thorough and accurate. Participants are also advised of potential pitfalls they may encounter in the field so they can be avoided. For inspectors, this seminar offers a rewarding learning experience that will assist in the proper administration of the code. For contractors, this seminar offers a great opportunity to learn what to expect when the inspector arrives on site.

Upon completion of this seminar, participants will be better able to adequately perform commercial mechanical inspections while onsite as well as locate and cite provisions pertaining to the inspection.

### 2006 UMC Essentials

UMC 101 (06)

**Length:** 1 or 2 days

This seminar provides a general overview of the *Uniform Mechanical Code*®. Students will walk away from the seminar with a greater understanding of how the code is organized, how to apply it and with a better understanding of its key concepts and provisions. Topics covered will include, but are not limited to, definitions, general requirements, ventilation, exhaust, ducts, combustion air, boilers, and refrigeration.

## Application Series – 200 Level

### 2009 UMC Residential Mechanical Inspections

UMC 202 (09)

**Length:** ½ day

This seminar is a “how-to” discussion of mechanical inspections for residential buildings. Participants will learn the fundamental steps and processes in performing this type of inspection while also learning numerous tips and techniques to help inspections be more thorough and accurate. Participants are also advised of potential pitfalls they may encounter in the field so they can be avoided. For inspectors, this seminar offers a rewarding learning experience that will assist in the proper administration of the code. For contractors, this seminar offers a great opportunity to learn what to expect when the inspector arrives on site.

Upon completion of this seminar, participants will be better able to adequately perform residential mechanical inspections while onsite as well as locate and cite provisions pertaining to the inspection.

### 2009 UMC Duct and Exhaust Systems

UMC 203 (09)

**Length:** 1 day

This seminar discusses the duct and exhaust systems requirements located in Chapters 5 and 6 of the *Uniform Mechanical Code*®. Some of the topics include, but are not limited to, scope, materials, installation of ducts, insulation of ducts, smoke, fire & ceiling dampers, ventilating ceilings, use of under-floor space as supply plenums, automatic shutoffs, environmental air ducts and product conveying, commercial hoods and kitchen ventilation, environmental air ducts & product conveying systems, flammable vapor or fumes, product conveying duct, domestic range vents, dryer exhaust duct, heat recovery ventilators and termination of environmental air ducts.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to duct and exhaust systems and components as well as describe the basic concepts and code requirements for duct and exhaust system installations.

## Focus Series – 300 Level

### 2009 UMC Duct Systems

UMC 302 (09)

**Length:** ½ or 1 day

This seminar provides a more detailed review and discussion including: scope, materials, installation and insulation of ducts, smoke, fire & ceiling dampers, ventilating ceilings, use of under-floor space as supply plenums, automatic shutoffs and product-conveying ducts.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to duct systems as well as describe the basic concepts and code requirements for installations of duct systems.

### 2009 UMC Chimneys and Vents

UMC 304 (09)

**Length:** ½ or 1 day

This seminar focuses on the *Uniform Mechanical Code*® Chapter 8 and discusses the code provisions concerning the installation and design of chimneys and vents. Along with the general provisions of this chapter, this seminar will cover venting specifications, sizing of venting systems, installation, construction, and how to use the numerous tables.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to chimneys and vents as well as describe the basic concepts and code requirements for installations of chimneys and vents.

### 2009 UMC Combustion Air and Venting

UMC 305 (09)

**Length:** ½ day

This four-hour seminar addresses the sizing of combustion air ducts for fuel gas burning appliances covered in Chapter 5 of the *Uniform Plumbing Code*® and Chapter 7 of the *Uniform Mechanical Code*®. It reviews the venting requirements in the UPC and the UMC. Specific topics discussed include, but are not limited to, inside combustion air, the two duct systems, the single air duct system, combined inside and outside combustion air design. An exercise will cover sizing and calculations, short cuts for job site verification and sizing, vent sizing requirements, when gamma tables must be used, and using the gamma tables.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to combustion air and venting as well as describe the basic concepts and code requirements for installations of combustion air systems and venting.

### 2009 UMC Exhaust Systems

UMC 306 (09)

**Length:** 1 day

This comprehensive seminar provides a more detailed review and discussion including: environmental air ducts and product conveying, commercial hoods and kitchen ventilation, environmental air ducts & product conveying systems, flammable vapor or fumes, product conveying ducts, domestic range vents, dryer exhaust duct, heat recovery ventilators and termination of environmental air ducts.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to exhaust systems as well as describe the basic concepts and code requirements for installations of exhaust systems.

# MECHANICAL SEMINARS

## Focus Series – 300 Level

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### 2006 UMC Duct Systems

UMC 302 (06)

**Length:** 1 day

This seminar provides a more detailed review and discussion including: scope, materials, installation of ducts, insulation of ducts, smoke, fire & ceiling dampers, ventilating ceilings, use of under-floor space as supply plenums, automatic shutoffs and product-conveying ducts.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to duct systems as well as describe the basic concepts and code requirements for installations of duct systems.

### 2006 UMC Chimneys and Vents

UMC 304 (06)

**Length:** ½ or 1 day

This seminar focuses on the *Uniform Mechanical Code*® Chapter 8 and discusses the code provisions concerning the installation and design of chimneys and vents. Along with the general provisions of this chapter, this seminar will cover venting specifications, sizing of venting systems, installation, construction, and how to use the numerous tables in this chapter.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to chimneys and vents as well as describe the basic concepts and code requirements for installations of chimney and vents.

### 2006 UMC Combustion Air and Venting

UMC 305 (06)

**Length:** ½ day

This four-hour seminar addresses the sizing of combustion air ducts for fuel gas burning appliances covered in Chapter 5 of the *Uniform Plumbing Code*® and Chapter 7 of the *Uniform Mechanical Code*®. It covers the venting requirements in Chapter 5 of the UPC and Chapter 8 of the UMC. Specific topics discussed include, but are not limited to inside combustion air, the two duct systems, the single air duct system, combined inside and outside combustion air design. An exercise will cover sizing and calculations, short cuts for job site verification and sizing, vent sizing requirements, when gamma tables must be used, and using the gamma tables.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to combustion air and venting as well as describe the basic concepts and code requirements for installations of combustion air systems and venting.

### 2006 UMC Exhaust Systems

UMC 306 (06)

**Length:** ½ or 1 day

This comprehensive seminar provides a more detailed review and discussion including: environmental air ducts and product conveying, commercial hoods and kitchen ventilation, environmental air ducts & product conveying systems, flammable vapor or fumes, product conveying ducts, domestic range vents, dryer exhaust duct, heat recovery ventilators and termination of environmental air ducts.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to exhaust systems as well as describe the basic concepts and code requirements for installations of exhaust systems.

## Code Changes Series – 400 Level

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### 2012 UMC Code Changes

UMC 401 (12)

**Length:** 1 day

Need to know what is new in the *2012 Uniform Mechanical Code*® (UMC) from the previous edition?

This seminar will walk participants through the important code changes that will have an impact on the mechanical and code enforcement industries. Participants can expect an in-depth discussion of the important changes so they not only understand what changed, but also why it changed and how it effects them directly.

### 2009 UMC Code Changes

UMC 401 (09)

**Length:** 1 day

In this seminar, participants will learn about the notable changes between the *2009 Uniform Mechanical Code*® and the 2006 edition. Accordingly, the changes are noted during the seminar and supporting information about the changes is provided. General topics such as administration, definitions and general requirements are covered as well as specific topics that include exhaust systems, duct systems, chimneys and vents, hydronics, steam and hot water boilers, and fuel gas piping.

Upon completion of this seminar, participants will be better able to identify and describe the significant code changes that occurred from the previous edition as well as significant additions and deletions from the code.



## Code Changes Series – 400 Level

### 2009 IMC Code Changes

IMC 401 (09)

**Length:** 1 day

In this seminar, participants will learn about the notable changes between the *2009 International Mechanical Code* and the 2006 edition. Accordingly, the changes are noted during the seminar and supporting information about the changes is provided. General topics such as definitions and general regulations are covered as well as specific topics that include, but are not limited to, exhaust systems, duct systems, combustion air, ventilation, chimneys and vents hydronics, and steam and hot water boilers.

Upon completion of this seminar, participants will be better able to identify and describe the significant code changes that occurred from the previous edition as well as significant additions and deletions from the code.

### 2006 UMC Cumulative Analysis

UMC 401 (06)

**Length:** 1 day

In this seminar, participants will learn about the notable changes between the *2006 Uniform Mechanical Code*® and the 2003 edition. Accordingly, the changes are noted during the seminar and supporting information about the changes is provided. General topics such as administration, definitions and general requirements are covered as well as specific topics that include exhaust systems, duct systems, chimneys and vents, hydronics, steam and hot water boilers, and fuel gas piping.

Upon completion of this seminar, participants will be better able to identify and describe the significant code changes that occurred from the previous edition as well as significant additions and deletions from the code.

### 2009 UMC Transition

UMC 402 (12)

**Length:** 1 day

Changing from one mechanical code to another can prove to be a challenge to those who have to apply the code. This seminar provides participants with the information needed to successfully transition to the *2009 Uniform Mechanical Code*® from another published mechanical code. Participants will discover the major differences between the two codes and how the differences apply in the field. Code provisions and concepts that are new to users will also be addressed and thoroughly discussed. Subtle differences that can have a large impact on the application of the code will be covered as well, allowing code users to correctly apply the 2009 UMC.

### 2006 IMC Update

IMC 401 (06)

**Length:** 1 day

In this seminar, participants will learn about the notable changes between the *2006 International Mechanical Code* and the 2003 edition. Accordingly, the changes are noted during the seminar and supporting information about the changes is provided. General topics such as definitions and general regulations are covered as well as specific topics that include, but are not limited to, exhaust systems, duct systems, combustion air, ventilation, chimneys and vents, hydronics, and steam and hot water boilers.

Upon completion of this seminar, participants will be better able to identify and describe the significant code changes that occurred from the previous edition as well as significant additions and deletions from the code.

## Coming Soon!

- 2012 IMC Code Changes

# Customized SEMINARS

IAPMO can provide training customized to fit your specific needs. Several tiers of customized training are available. The complexity of developing customized training, the amount of development time needed, and development resources increase with each tier. We can work with you to find a custom curriculum solution that meets your needs, budget and delivery time.

**Tier 1 – Custom mechanical and plumbing code topics.** Training outside of IAPMO's current offerings that covers specific plumbing or mechanical code topics (i.e. a course that only covers a few select chapters or concepts from the UPC).

**Tier 2 – Standard IAPMO training that includes state or local amendments.**

Training currently offered by IAPMO, but modified to incorporate amendments made to the code by a state or local jurisdiction (i.e. 2009 UMC Essentials with Massachusetts Amendments).

**Tier 3 – Custom mechanical and plumbing code topics that includes state or local amendments.**

Training outside of IAPMO's current offerings that cover specific plumbing or mechanical code topics that also incorporates amendments made to the code by a state or local jurisdiction.

For more information on how to contract a seminar or any other education related inquiries please contact:

**Maria Sol Alba**, Training and Education Manager at [sol.alba@iapmo.org](mailto:sol.alba@iapmo.org) or submit the information Request Form at the back of this catalog.

# SHORT TOPICS

IAPMO's short topics allows you the flexibility to "mix and match" topics that fit the unique needs of your group. Any of the following sessions can be combined to form half or full day.

## Sample short topics Training Day

Time	Session
8 – 10am	2009 UPC New Venting Methods
10am – 12pm	2009 UPC Chapter 5 Combustion Air and Venting
12pm – 1pm	Lunch
1pm – 3pm	2009 UPC Chapter 10 Grease Interceptors
3pm – 5pm	UPC Workshop

## Workshops

### 2009 UPC Workshop

**Length:** 2 hours

The UPC Workshop Committee presents an opportunity for participants to test their code knowledge and learn from their peers. During the workshop, participants are placed into groups and are given drawings of plumbing installations and asked to determine if the systems and components are in compliance with the *2009 Uniform Plumbing Code*®. The findings are then presented to everyone in attendance to determine if they are correct and discuss any code issues discovered in the drawing.

### 2009 UMC Workshop

**Length:** 2 hours

The UMC Workshop Committee presents an opportunity for participants to test their code knowledge and learn from their peers. During the workshop, participants are placed into groups and are given drawings of mechanical installations and asked to determine if the systems and components are in compliance with the *2009 Uniform Mechanical Code*®. The findings are then presented to everyone in attendance to determine if they are correct and discuss any code issues discovered in the drawing.

### 2006 UPC Workshop

**Length:** 2 hours

This workshop serves as a great exercise in applying the *2006 Uniform Plumbing Code*®. Participants will study various installation scenarios to determine if they comply with the code.

### 2006 UMC Workshop

**Length:** 2 hours

This workshop serves as a great exercise in applying the *2006 Uniform Mechanical Code*®. Participants will study various installation scenarios to determine if they comply with the code.

## Two-Hour Sessions

### 2010 GPMCS HVAC Energy Efficiency

**Length:** 2 hours

This seminar discusses the *2009 Uniform Mechanical Code*® and *2010 Green Plumbing and Mechanical Code Supplement* provisions pertaining to HVAC energy efficiency and environmental quality. Covered in this seminar, will be the provisions related to the design, installation, and maintenance of systems that are designed to enhance the energy efficiency associated with plumbing and mechanical systems within a building.

### 2010 GPMCS Rainwater Harvesting and Gray Water

**Length:** 2 hours

Participants in this seminar will learn about the use, installation, and code requirements for several non-potable water reuse systems. Specifically, the types of systems covered in this session will include gray water and rainwater harvesting. Each system will be defined and the potential benefits and safety hazards will be discussed.

## Two-Hour Sessions

### 2009 UPC Proper Use and Understanding Tables 7-3 and 7-5

**Length:** 2 hours

The proper use and interpretation of Table 7-3 Drainage Fixture Unit Values and Table 7-5 Maximum Unit Loading and Maximum Length of Drainage and Vent Piping is the focus of this seminar. Also incorporated are the related provisions from Chapter 3 General Regulations, Chapter 9 Vents, Chapter 10 Traps and Interceptors and to some degree Appendix L Alternate Plumbing Systems in order to provide a more complete understanding of these tables and how to use them.

### 2009 UPC Horizontal Wet Venting

**Length:** 2 hours

This presentation is a step by step guide to horizontal venting of bathroom groups as defined by the 2009 Uniform Plumbing Code. Discussed are the relevant code provisions regarding horizontal wet venting as well as how the systems are to be installed in compliance with the code. The seminar concludes with audience participation and interaction with practical examples.

### 2009 UPC Vents and Venting

**Length:** 2 hours

This session discusses the Chapter 9 *Uniform Plumbing Code*® provisions regulating vents and venting. The topics covered in this module include a vent overview, cross-sectional area venting, vent connections, special venting requirements, and combination waste and vent systems.

### 2009 UPC Chapter 16 Non-potable Water Reuse Systems

**Length:** 2 hours

This presentation will provide an overview of the provisions in *2009 Uniform Plumbing Code*® Chapter 16 regarding Gray Water. Also discussed will be the significant changes in this chapter from the previous code as this chapter has undergone extensive revisions.

### 2009 UPC Appendix L – Alternative Sizing Methods

**Length:** 2 hours

This presentation will discuss the alternate sizing methods provided in Appendix L of the 2009 UPC. Participants will learn how use the alternate sizing provisions and relevant tables as well as being guided through sizing example. During this presentation, participants will have the opportunity to work through sizing problems using Appendix L in order to sharpen their skills.

### 2006 UMC Chapter 7 Combustion Air and Venting

### 2006 UPC Chapter 5 Combustion Air and Venting

**Length:** 2 hours

Various methods for sizing combustion air will be covered. The effective uses of these methods and the logic and engineering behind them will be discussed. The requirements and use of the gamma tables relative to *Uniform Mechanical Code*® Chapter 7 and *Uniform Plumbing Code*® Chapter 5 will be briefly addressed.

### 2006 UPC New Venting Methods

**Length:** 2 hours

Interactive participation is welcomed as the following topics are discussed: Bathroom Wet Venting, Section 908.4, Appendix L 7 Circuit Venting, and L 8 Single Stack Venting Systems.

### 2006 UPC Fixtures and Fixture Fittings

**Length:** 2 hours

This session discusses the *Uniform Plumbing Code*® provisions in Chapter 4 governing the use and installation of plumbing fixtures and fixture fittings. While discussing these provisions special attention will be given to provisions that have changed since the 2003 UPC in an effort to alleviate any confusion about the new requirements. Some topics that will be discussed include, but are not limited to, materials, water-conserving fixtures, prohibited fixtures and installation.

### 2006 UPC Chapter 10 Grease Interceptors

**Length:** 2 hours

This session will assist participants in understanding the new grease interceptors and the necessary criteria for sizing, application, and installation of FOG disposal systems.

### 2009 UMC Steam and Hot Water Boilers

**Length:** 2 hours

Participants in this seminar will discover the difference between domestic water heaters and hot water boilers. Specifically, the safety features and controls that were designed to save lives and limit injuries of operators and service personnel will be reviewed. A discussion of how these systems are designed to work will provide participants with a better understanding of these systems.

### 2009 UMC Appliance Venting

**Length:** 2 hours

This seminar discusses the *2009 Uniform Mechanical Code*® provisions regarding the venting of appliances. General venting requirements are covered as well as the venting requirements for specific appliances. Participants in this session will walk away with a clearer understanding of how appliances are intended to be vented, as well as, having had some misconceptions clarified.

### 2009 UMC Type 1 Hoods

**Length:** 2 hours

This session will discuss the provisions of the 2009 UMC Part II Kitchen Hoods and help participants understand the options available for design of hoods, grease ducts, clearances and terminations. Several new concepts are now available since the inclusion of NFPA 96 into the *Uniform Mechanical Code* and will also be discussed. Inspectors and plan reviewers need to be aware of the specifics of these new concepts. Bring your 2009 UMC and a calculator for this class. Case studies and sample sizing problems will be included to test the knowledge that you have gained.

## Two-Hour Sessions

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### **2009 UMC Ducts and Penetrations**

**Length:** 2 hours

The presentation on ducts and penetrations touches a bit on 2009 UMC Chapter 4 and talks about the use of the tables and minimum ventilation requirements with the main focus on the 2009 UMC Chapter 6 and IBC Chapter 7. The discussion will also cover the installation of various ducts, sub-ducts and fire dampers. The last part of the seminar will cover exhaust ducts from 2009 UMC Chapter 5.

### **2009 UMC Commercial Kitchen Ventilation**

**Length:** 2 hours

This class is directed toward designers, plan reviewers, Building inspectors, Health inspectors and installation contractors. A review of the provisions of the 2009 UMC Part II Kitchen Hoods will be discussed that will lead students to understand options available for design of hoods, grease ducts, clearances and terminations. Several new concepts are now available since the inclusion of NFPA 96 into the *Uniform Mechanical Code*. Inspectors and plan reviewers need to be aware of the specifics of these new concepts.

Bring your 2009 UMC and a calculator for this class. Handouts will be given to participants that will include case studies and a test of the knowledge that you have gained.

### **2009 UMC Utilizing Vent Tables**

**Length:** 2 hours

This presentation includes how to choose the appropriate table for sizing the vent connector, and for sizing the common vent. It will discuss the deductions for offsets, manifolds and chimney liners. Also covered will be connector length limitations and deductions. This presentation will also cover how to determine the fan min and the fan max using the correction for altitude and the use for connector rise and run in the tables. There will be sizing examples and problems.

### **2006 UMC Ventilation Air Supply**

**Length:** 2 hours

This seminar covers the ventilation air supply provisions in Chapter 4. Topics discussed in this session include, but are not limited to, ventilation air, natural ventilation, mechanical ventilation, ventilation rates, outdoor air, makeup air, and evaporative cooling systems.

### **2006 UMC Installations of Clothes Dryers and Clothes Dryer Exhaust Ducts**

**Length:** 2 hours

This session will discuss the *2006 Uniform Mechanical Code*® installation requirements for clothes dryers and their exhaust ducts. Covered in the session will be proper installation of Type 1 and Type 2 clothes dryers according to the relevant provisions of the UMC. Also discussed will be the code requirements for exhausted air and for the exhaust ducts serving both types of clothes dryers.

### **Green Design within the UPC and UMC**

**Length:** 2 hours

This session discusses how green products and concepts can be applied with the *2006 Uniform Plumbing Code*® and *Uniform Mechanical Code*®. Specifically, the session describes green applications that are currently allowed by the codes as well as some possible applications that can be allowed through the alternative approval process.

### **Residential Fire Sprinklers**

**Length:** 2 hours

Residential Fire Sprinklers are becoming a very controversial topic around the country. This session will discuss the relevant codes and provisions that govern the proper installation of residential fire sprinklers. Specific topics discussed will include materials, installation, and testing of these systems as well as discussing fire sprinkler myths and facts.

## Four-Hour Sessions

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### **2009 UPC Water Heater Installations**

**Length:** 2 or 4 hours

This seminar discusses the code provisions governing water heater installations as contained in Part I of Chapter 5 of the 2009 UPC. Specific topics covered will include types of water heaters, specific installation requirements, bedroom and bathroom installations, vent methods of terminations and clearances, methods of providing combustion and ventilation air, enclosures, and clearance reduction methods.

### **2009 UPC Commercial Plumbing Inspections**

**Length:** 4 hours

This seminar is a "how-to" discussion of plumbing inspections for commercial buildings. Participants will learn the fundamental steps and processes in performing this type of inspection while also learning numerous tips and techniques to help inspections be more thorough and accurate. Participants are also advised of potential pitfalls they may encounter in the field so they can be avoided. For inspectors, this seminar offers a rewarding learning experience that will assist in the proper administration of the code. For contractors, this seminar offers a great opportunity to learn what to expect when the inspector arrives on site.

## Four-Hour Sessions

### 2009 UPC Residential Plumbing Inspections

**Length:** 4 hours

This seminar is a “how-to” discussion of plumbing inspections for residential buildings. Participants will learn the fundamental steps and processes in performing this type of inspection while also learning numerous tips and techniques to help inspections be more thorough and accurate. Participants are also advised of potential pitfalls they may encounter in the field so they can be avoided. For inspectors, this seminar offers a rewarding learning experience that will assist in the proper administration of the code. For contractors, this seminar offers a great opportunity to learn what to expect when the inspector arrives on site.

### 2009 UPC DWV Principles

**Length:** 4 hours

This seminar provides a detailed review and discussion of the various drain, waste, and vent requirements in the *Uniform Plumbing Code*®. Topics covered in this seminar include, but are not limited to, use of joints, drainage fixture units, installation and sizing of building sewers, sumps & sewage ejectors, indirect waste piping, chemical waste, steam and hot water drainage, condensers and sumps, vent sizing and termination, island venting, combination waste and vent and wet vents.

### 2009 UPC Traps and Interceptors

**Length:** 4 hours

This four-hour seminar will assist participants in understanding the new grease interceptors and the necessary criteria for sizing, application, and installation of FOG disposal systems.

### 2009 UPC Water and Gas Pipe Sizing

**Length:** 4 hours

This seminar provides participants with “how-to” instruction on properly sizing water and gas piping systems and their components. Participants will have the opportunity to practice what they learn in this hands-on learning experience. Upon leaving the seminar, participants will be better able to identify the appropriate sizing requirements in the code as well as properly determine the correct pipe sizing for the systems they encounter in the field.

### 2009 UMC Commercial Mechanical Inspections

**Length:** 4 hours

This seminar is a “how-to” discussion of mechanical inspections for commercial buildings. Participants will learn the fundamental steps and processes in performing this type of inspection while also learning numerous tips and techniques to help inspections be more thorough and accurate. Participants are also advised of potential pitfalls they may encounter in the field so they can be avoided. For inspectors, this seminar offers a rewarding learning experience that will assist in the proper administration of the code. For contractors, this seminar offers a great opportunity to learn what to expect when the inspector arrives on site.

### 2009 UMC Residential Mechanical Inspections

**Length:** 4 hours

This seminar is a “how-to” discussion of mechanical inspections for residential buildings. Participants will learn the fundamental steps and processes in performing this type of inspection while also learning numerous tips and techniques to help inspections be more thorough and accurate. Participants are also advised of potential pitfalls they may encounter in the field so they can be avoided. For inspectors, this seminar offers a rewarding learning experience that will assist in the proper administration of the code. For contractors, this seminar offers a great opportunity to learn what to expect when the inspector arrives on site.

### 2009 UMC Duct Systems

**Length:** 4 hours

This seminar provides a more detailed review and discussion including: scope, materials, installation of ducts, insulation of ducts, smoke, fire & ceiling dampers, ventilating ceilings, use of under-floor space as supply plenums, automatic shutoffs and product-conveying ducts.

### 2009 UMC Chimneys and Vents

**Length:** 4 hours

This seminar focuses on the *Uniform Mechanical Code*® Chapter 8 and discusses the code provisions concerning the installation and design of chimneys and vents. Along with the general provisions of this chapter, this seminar will cover venting specifications, sizing of venting systems, installation, construction, and how to use the numerous tables in this chapter.

### 2009 UMC Combustion Air and Venting

**Length:** 4 hours

This four-hour seminar addresses the sizing of combustion air for fuel gas burning appliances covered in Chapter 5 of the *Uniform Plumbing Code*® and Chapter 7 of the *Uniform Mechanical Code*®. It covers the venting requirements in Chapter 5 of the UPC and Chapter 8 of the UMC. Specific topics discussed include, but are not limited to, inside combustion air, the two duct systems, the single air duct system, combined inside and outside combustion air design. An exercise will cover sizing and calculations, short cuts for job site verification and sizing, vent sizing requirements, when gamma tables must be used, and using the gamma tables.

### 2006 UPC Gas Pipe Sizing

**Length:** 4 hours

This session covers the basics of Gas Pipe Sizing provisions in the *Uniform Plumbing Code*®. Included in the discussion are properties of natural gas, three sizing methods, converting Btu/h to CFH, sizing black steel systems, sizing copper tubing systems, and sizing CSST systems.

## Four-Hour Sessions

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### **2006 UPC Drain, Waste, and Vents**

**Length:** 4 hours

This seminar provides an overview of sizing of drainage systems, cleanouts, slope & change of direction of drainage flow, use of joints, drainage fixture units, installation and sizing of building sewers, sumps & sewage ejectors, indirect waste piping, chemical waste, steam and hot water drainage, condensers and sumps, vent sizing and termination, island venting, combination waste and vent and wet vents.

### **2006 UPC Water Supply and Distribution**

**Length:** 4 hours

Discussed in this session is Chapter 6 of the *Uniform Plumbing Code*®. The material covered includes, materials, valves, joints and connections, water pressure, installation, testing, size of potable water piping, and water treatment units.

### **2006 UPC Traps and Interceptors**

**Length:** 4 hours

This four-hour seminar will assist participants in understanding the new grease interceptors and the necessary criteria for sizing, application, and installation of FOG disposal systems.

### **2006 UMC Combustion Air and Venting**

**Length:** 4 hours

This four-hour seminar addresses the sizing of combustion air ducts for fuel gas burning appliances covered in Chapter 5 of the *Uniform Plumbing Code*® and Chapter 7 of the *Uniform Mechanical Code*®. It covers the venting requirements in Chapter 5 of the UPC and Chapter 8 of the UMC. Specific topics discussed include, but are not limited to, inside combustion air, the two duct systems, the single air duct system, combined inside and outside combustion air design. An exercise will cover sizing and calculations, short cuts for job site verification and sizing, vent sizing requirements, when gamma tables must be used, and using the gamma tables.

### **2006 UMC Duct Systems**

**Length:** 4 hours

This seminar discusses the duct systems requirements located in Chapter 6. Some of the topics discussed in this seminar include, but are not limited to, scope, materials, installation of ducts, insulation of ducts, smoke, fire & ceiling dampers, ventilating ceilings, use of under-floor space as supply plenums, and automatic shutoffs.

### **UL Fire Stopping in Fire-Resistance Rated Assemblies**

**Length:** 4 hours

Plumbing and mechanical systems are a necessity in building construction. It is often necessary to pass these items through hourly rated fire-resistive floor or wall assemblies. To accomplish this, oversized openings are cut or drilled through the floor or wall. Through-penetration firestop systems are intended to restore the hourly rating of fire-resistive assemblies that have been breached due to penetration by electrical, plumbing or mechanical items. This session will discuss the various materials, systems, and methods tested and approved by Underwriters Labs to maintain fire-resistive ratings.

### **Combustion Air and Venting of Gas Burning Appliances**

**Length:** 4 hours

This four-hour seminar addresses the sizing of combustion air ducts for fuel gas burning appliances covered in Chapter 5 of the *Uniform Plumbing Code*® and Chapter 7 of the *Uniform Mechanical Code*®. It covers the venting requirements in Chapter 5 of the UPC and chapter 8 of the UMC. Specific topics discussed include, but are not limited to, inside combustion air, the two duct systems, the single air duct system, combined inside and outside combustion air design. An exercise will cover sizing and calculations, short cuts for job site verification and sizing, vent sizing requirements, when gamma tables must be used, and using the gamma tables.

### **UPC Water Pipe Sizing and Installation and Sizing and Installation of Fuel Gas Piping**

**Length:** 4 hours

For Part 1, bring a calculator and your *Uniform Plumbing Code*® to work with sizing drawings. A practical exercise will cover basic installation of water lines, sizing for water-lines with flush tank toilets, and sizing of water-lines with flush-o-meter valves. For Part 2, bring your *Uniform Plumbing Code*®, *Uniform Mechanical Code*®, NFPA 54 or the IFGC and a calculator to work with drawings for an in-class exercise covering sizing and calculations. The exercise will cover: short cuts for job site verification and sizing, the installation of gas pipe, pipe sizing using the branch length method, pipe sizing using the longest length method, and basic sizing using corrugated stainless steel.

### **Effective Use of the Drain, Waste, and Vent Provisions of the Uniform and International Plumbing Codes**

**Length:** 4 hours

This discussion will focus on those similar provisions in the codes that cause the most common confusion and errors during the process of plan review and inspections. Emphasis will be placed on the proper intent, interpretation, and application of the drain, waste and vent of each code.

## Mini Sessions

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### 2009 UPC FOG Systems and Interceptors

**Length:** 45 minutes

This course discusses the Uniform Plumbing Code provisions regulating fat, oil, and grease (FOG) disposal systems. During this session, major focus is placed on what FOG systems are and how they work, significant code changes impacting FOG systems, and FOG equipment and equipment sizing.

### 2009 UPC Wet Venting

**Length:** 45 minutes

This session will discuss both horizontal and vertical wet venting and the 2009 UPC requirements governing the installation of those systems. The discussion will also cover the proper functioning, use, and installation of these two venting options as well.

### 2009 UPC Faucets and Fixtures

**Length:** 45 minutes

This session discusses the *Uniform Plumbing Code's* provisions in Chapter 4 governing the use and installation of faucets and fixtures. Some topics that will be discussed include, but are not limited to, materials, water conserving fixtures, prohibited fixtures, and installation.

### 2009 UPC Firestopping

**Length:** 30 minutes

This presentation will discuss proper firestopping of plumbing systems. Discussed in this presentation will be the difference between firestopping and draftstopping, why it is needed, and proper installation.

### 2009 UPC Cleanouts

**Length:** 30 minutes

This roundtable presentation will cover the minimum requirements pertaining to 2009 UPC Section 707 cleanouts. Items to be discussed include, but are not limited to, definitions, locations, exceptions, cleanouts for interceptors, clearance around cleanouts, cleanouts in underfloor piping.

### 2009 UPC Horizontal Wet Venting

**Length:** 30 minutes

This presentation is a step by step guide to horizontal venting of bathroom groups as defined by the *2009 Uniform Plumbing Code*®. Discussed in this presentation will be the relevant code provisions regarding horizontal wet venting as well as how these systems are to be installed in compliance with the code.

### 2009 UPC Sizing Indirect Waste Receptors

**Length:** 30 minutes

This presentation will guide participants through the methods used to properly size indirect waste receptors. All relevant Code sections of the 2009 UPC will be addressed.

### 2009 UPC Automatic Trap Primers

**Length:** 30 minutes

This roundtable presentation will cover the minimum requirements pertaining to Section 1007 Trap Seal Protection of the *2009 Uniform Plumbing Code*®. Items to be discussed include, but are not limited to, definitions, theory, approved devices and methods.

### 2009 UPC Discussion – How to Achieve 120 Degrees at the Tub Valve

**Length:** 30 minutes

This presentation will discuss methods for providing water to tubs and similar fixtures at not more than 120 degrees F and will discuss the requirements as published in the 2009 UPC pertinent to this issue. The types of valves which may or may not be used to provide hot water within the prescribed range as well as methods which are prohibited by the 2009 UPC will also be discussed.

### Water Conservation Products

**Length:** 30 minutes

This presentation will discuss the definitions and differences of Reclaimed Water, Gray Water and Rainwater Harvesting. Also covered will be plumbing fixtures, fittings and appurtenances which are designed to conserve potable water. The presentation will also include systems which are currently available for rainwater harvesting and gray water, and the potential use of, and provisions for, reclaimed water systems.

### 2009 UMC Type I and II Clothes Dryers and Exhaust Ducts

**Length:** 45 minutes

This session will discuss the 2009 UMC installation requirements for Type 1 & 2 clothes dryers and their exhaust ducts. Topics covered in this presentation include general clothes dryer and exhaust duct information, causes and prevention of dryer fires, and dryer exhaust problems.

### 2009 UMC Firestopping

**Length:** 30 minutes

This class is directed toward designers, plan reviewers, building inspectors and installation contractors. A round table discussion format will allow you to learn how duct systems need to work together with Building Codes and Installation Standards to achieve "Firestop." We will discuss the continuity of fire resistive construction when duct penetrations are required. We will learn when and where fire and smoke dampers are required and when they may be exempted. Handouts will be available to help participants refresh their memory of these requirements when they are confronted with them on the job. More information will be included than what can be presented in the 30 minutes available. It will guide you in a continued self study of this topic. Please bring your 2009 UMC and IBC for this session.

## 2009 UMC Combustion Air

**Length:** 30 minutes

This presentation will include the standard method of supplying combustion air and how to compute whether a room is a confined or un-confined space. It will also cover the use of the single outside combustion air method of supplying combustion air and also the combined inside and outside method of supplying combustion air. The presentation will also discuss how to size the openings using a metal grill or a wood louver.

## 2009 UMC Fuel Burning Appliances in Bedrooms

**Length:** 30 minutes

This presentation will discuss the new UMC requirements governing fuel burning appliances installed in sleeping areas. Specifically discussed will be the potential hazards of such installations as well as the 2009 code change regarding these installations.

## 2009 UMC Product Conveyance Systems in Cabinet Shops

**Length:** 30 minutes

This class is directed toward designers, plan reviewers, building inspectors and installation contractors. A round table discussion format will allow you to learn from real world examples and Q&A from other inspectors. We will discuss what is common to design and inspections for sawdust collection systems. A template for relevant code sections will be handed out that will boost your skills. This template can be used to design and inspect any product-conveying ventilation system covered by the 2009 UMC. Bring your code book and a highlighter for this 30 minute discussion.

## 2009 UMC Converting Fireplaces from Wood Burning to Gas

**Length:** 30 minutes

This presentation will discuss the UMC provisions that are applicable to the conversion of wood burning fireplaces to gas fireplaces. Included in the discussion will be the potential hazards of these conversions as well as the specific provisions that aim to mitigate those hazards.

# Black and White and **GREEN** All Over



- Provides needed guidance for designing, installing and inspecting sustainable plumbing and mechanical systems called for in green building rating systems and standards such as LEED for Homes and NAHB's Green National Building Standard™
- Provides the most comprehensive collection of plumbing and mechanical provisions available toward increased water and energy efficiency
- Will provide related installation and maintenance requirements
- Where possible, the Green Supplement provides commentary detailing the water and energy savings associated with the provisions detailed within its language

*The Green Supplement is not a "greener" version of the Uniform Codes, but rather a separate document establishing requirements for green building and water efficiency applicable to plumbing and mechanical systems.*

[WWW.IAPMOGREEN.ORG](http://WWW.IAPMOGREEN.ORG)





**Introduction to Green Plumbing and Mechanical Concepts** **GPMCS 101 (09)**

**Length:** 1 day

This seminar is designed to introduce participants to the basics of the Green Building movement as well as Green Plumbing and Mechanical concepts, products, and installations. Participants will learn about the present trend towards green construction, what it means to be green, and the major organizations supporting green technology and practices. The discussion of Green Plumbing will focus on the need for green applications, water conservation and water conserving methods, and the link between water conservation and energy conservation. Some of the Green Plumbing concepts covered in this discussion include, but are not limited to, reduced volume fixtures, low-flow toilets, low-flow and waterless urinals, gray water systems, reclaimed water, and water heating. The Green Mechanical portion of the program will focus on energy conservation and indoor air quality. Some of the Green Mechanical concepts covered in this discussion include, but are not limited to, high efficiency boiler systems, high efficiency forced air systems, thermal mass and storage, geothermal applications, and solar heating.

**GreenSpeak** **GPMCS 102 (09)**

**Length:** 3 hours

This workshop is an easy to understand orientation for those new to the language and culture of Green. GreenSpeak outlines the basic concepts, puts meaning to terms, and discusses basic high performance, energy efficiency systems relative to the plumbing and mechanical systems of a building. A workbook is provided to follow along with the colorful, entertaining Power Point slides. This workshop is recommended for anyone who needs to understand the language and culture of the world of Green!

**Introduction to Green Plumbing Concepts** **GPMCS 103 (09)**

**Length:** ½ day

This seminar is designed to introduce participants to the basics of the Green Building movement as well as Green Plumbing concepts, products, and installations. Participants will learn about the present trend towards green construction, what it means to be green, and the major organizations supporting green technology and practices. The discussion of Green Plumbing will focus on the need for green applications, water conservation and water conserving methods, and the link between water conservation and energy conservation. Some of the Green Plumbing concepts covered in this discussion include, but are not limited to reduced volume fixtures, low-flow toilets, low-flow and waterless urinals, gray water systems, reclaimed water, and water heating.

**Introduction to Green Mechanical Concepts** **GPMCS 104 (09)**

**Length:** ½ day

This seminar is designed to introduce participants to the basics of the Green Building movement as well as Green Mechanical concepts, products, and installations. Participants will learn

about the present trend towards green construction, what it means to be green, and the major organizations supporting green technology and practices. The Green Mechanical program will focus on energy conservation and indoor air quality. Some of the Green Mechanical concepts covered in this discussion include, but are not limited to, high efficiency boiler systems, high efficiency forced air systems, thermal mass and storage, geothermal applications, and solar heating.

**2012 UPC Alternate Water Systems** **GPMCS 110 (12)**

**Length:** 1 day

Chapter 16 of the *2012 Uniform Plumbing Code*® (UPC) has been completely revised to meet industry needs and reflect continuously emerging technologies. This seminar takes an in-depth look at the Alternate Water Systems chapter by discussing the technologies covered in the chapter and how to correctly apply the provisions governing the proper installation and use of those technologies. Some of the topics include gray water, reclaimed water, on-site treated non-potable water, and cross-connection.

**2012 UPC Rainwater Catchment** **GPMCS 114 (12)**

**Length:** ½ or 1 day

Rainwater Catchment is a topic that is garnering a lot of attention in the United States and around the world with regards to proper installation and maintenance of those systems. It is for this reason that the *2012 Uniform Plumbing Code*® (UPC) has added a new Chapter 17 to address this technology. Participants in this seminar will be exposed to the issues concerning the plumbing industry with regards to rainwater catchment systems and will focus on the provisions in the 2012 UPC intended to ensure such systems are installed safely and maintained correctly.

**2009 UPC Chapter 16 Non-potable Water Reuse Systems** **GPMCS 105 (09)**

**Length:** 2 hours

This presentation will provide an overview of the provisions in *2009 Uniform Plumbing Code*® Chapter 16 regarding Gray Water. Also discussed will be the significant changes in this chapter from the previous code as this chapter has undergone extensive revisions.

**LEED® for Contractors** **GPMCS 106 (09)**

**Length:** ½ day

Demystifying the LEED® building certification process, this seminar explains LEED® and the different types, levels and focuses on the mechanical systems of a building. The presentation helps answer common questions among contractors such as – What specialized training is required for LEED® projects? Is there a continuous revenue stream available for service contractors? Is LEED-AP appropriate for me?

# GREEN SERIES SEMINARS

## **Building Rating Systems – A Comparative Analysis**

**Length:** ½ day

This seminar explores the most popular building certification programs including LEED®, Green Globes, and Energy Star. Are they all the same? Which is the best program for your client's situation? Participants will be better able to offer more appropriate and educated options when considering green building initiatives.

**GPMCS 107 (09)**

code and supplement regulations regarding the use and installation of fixtures and systems designed to efficiently use and conserve water. Also covered in the seminar are the provisions in both documents pertaining to green water heating design, equipment, and proper installation.

## **2010 GPMCS Essentials**

**Length:** 1 day

This seminar provides participants with an overview of the *2010 Green Plumbing and Mechanical Code Supplement*. Discussed in this seminar will be a brief history and goal of the document, how the supplement is organized, and how the document supplements other existing codes. Other specific topics and provisions will include, but are not limited to, water efficiency and conservation, alternate water sources, energy efficiency, environmental quality, and installation and maintenance requirements.

**GPMCS 108 (10)**

## **UMC/GPMCS HVAC Energy Efficiency and Environmental Quality**

**Length:** 1 day

This seminar discusses the *2009 Uniform Mechanical Code®* and *2010 Green Plumbing and Mechanical Code Supplement* provisions pertaining to HVAC energy efficiency and environmental quality. Covered in this seminar, will be the provisions related to the design, installation, and maintenance of systems that are designed to enhance the energy efficiency associated with plumbing and mechanical systems within a building. Participants will also learn about the provisions pertaining to HVAC systems that reduce the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants, and neighbors.

**GPMCS 112 (09)**

## **2009 Uniform Solar Energy Code Essentials**

**Length:** 1 day

This seminar provides an overview of the *2009 Uniform Solar Energy Code®* and its important concepts and provisions. Topics discussed in this seminar include, but are not limited to, general regulations, piping, joints and connections, thermal storage, collectors, ductwork, and electrical. Upon completion of this seminar, participants will be better able to locate and apply important code provisions, describe important concepts, and demonstrate an understanding of the code with regards to real world installations.

**GPMCS 109 (09)**

## **UMC/GPMCS Geothermal Systems**

**Length:** ½ day

This seminar discusses the *2009 Uniform Mechanical Code®* and *2010 Green Plumbing and Mechanical Code Supplement* provisions pertaining to geothermal systems that utilize the earth or a body of water as a heat source or sink for heating or cooling. The provisions regarding geothermal system design, installation, and testing will be covered as well as the appropriate provisions that reference CSA C448.

**GPMCS 113 (09)**

## **UPC/GPMCS Alternate Water Source Systems**

**Length:** 1 day

Participants in this seminar will learn about the use, installation, and code requirements for non-potable water reuse systems. These types of systems covered will include gray water, reclaimed/recycled water, rainwater harvesting, and on-site water reuse. Each system will be defined and the potential benefits and safety hazards will be discussed. This seminar will focus heavily on the provisions in Chapter 16 of the *Uniform Plumbing Code®* as well as the provisions in the Alternate Water Sources chapter of the *Green Plumbing and Mechanical Code Supplement*.

**GPMCS 110 (09)**

## **UPC/GPMCS Water Efficiency and Water Heating Systems**

**Length:** ½ day

This seminar discusses the *2009 Uniform Plumbing Code®* and *2010 Green Plumbing and Mechanical Code Supplement* provisions pertaining to water efficiency, conservation, and heating. Participants in this seminar will learn about the

**GPMCS 111 (09)**



**Length:** 4 days

Green Plumbers Training is a five course, thirty-two hour all-inclusive program leading to a third-party validated certification as an Accredited Green Plumber (for plumbers and apprentices).

Course titles are as follows:

*Caring for Our Water (indoor water conservation)* – 8 hours

*Climate Care (hot water/energy, greenhouse gas emissions)* – 8 hours

*Water Efficient Technology (rainwater catchment, gray water)* – 8 hours

*Solar Hot Water* – 4 hours

*Inspection Report Service (Water auditing, ROI Calculations)* – 4 hours

To learn more about GreenPlumbers Training and to register for course, please contact Bill at 916-560-3686 or email: [bill.lehtonen@greenplumberstraining.org](mailto:bill.lehtonen@greenplumberstraining.org)

# Work Smart

## Get Current with American National Standard *Uniform Codes*

The Illustrated Training Manuals include complete code text and full color illustrations

■ Developed by the industry for the industry, the UPC includes specific:

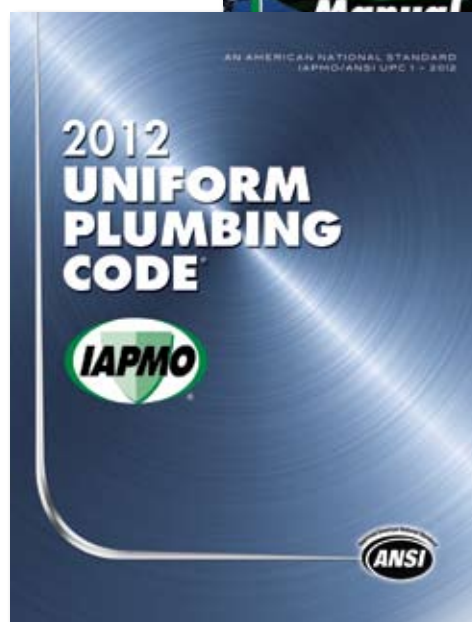
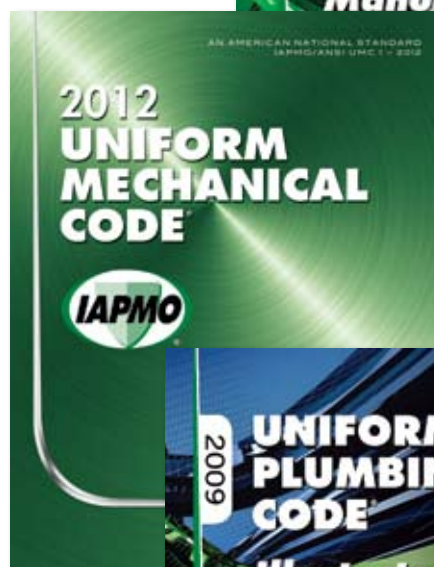
- Medical Gas and Vacuum Systems
- Manufactured/Mobile Home Parks
- Firefighting Breathing Air Replenishment Systems
- Fuel Gas
- Exhaust Venting
- Private Sewage Disposal Systems
- Installation Standards

The UMC includes specific:

- Fuel Gas
- Sizing of Venting Systems
- One- and Two-Family Dwellings
- Appliances for Installation in Manufactured Housing

■ Reduced personal liability from code change omissions — protect yourself and your clients by getting completely up to date

■ Build your foundation on more than 80 years experience in the plumbing/mechanical field



### Code Supporters:



# BUILDING & FIRE CODE SEMINARS

## Application Series – 200 Level

### Plan Review of Fire Alarm Systems

PR 101

**Length:** 1 or 2 days

This seminar will cover the basic alarm system areas within the IBC, IFC, and NFPA 72. Attendees will be taught the different Use Group Classifications that require fire alarm systems. The seminar will review manual pull station requirements and spacing along with fire detection requirements and spacing, battery calculations, wiring sizes, and the different types of supervisory stations. The seminar will also include the requirements for plan review and inspections of these systems along with the code requirements for tamper and waterflow switches.

### Automatic Sprinkler Plan Review

PR 102

**Length:** 1, 2 or 3 days

This seminar will cover all the basic sprinkler system requirements from NFPA 13, IBC, and IFC. Items covered are: types of sprinkler systems, sprinkler risers, water supplies, hangers, concealed spaces, fire department connections, occupancy density classifications, sprinkler obstructions, and density requirements for storage below 12' high.

### Plan Review of Gas Suppression and Kitchen Hood Extinguishing Systems

PR 103

**Length:** 1 day

This seminar covers the basic plan review, inspection, and system testing requirements for gas and kitchen hood suppression systems. Topics include; type of systems, nozzle spacing requirements, calculations, system components, plan review, testing requirements with examples.

### Plan Review of Fire Pumps, Standpipe Systems, and Underground Water Main Systems

PR 104

**Length:** 1 day

This seminar covers the basic plan review, inspection, and system testing requirements for fire pumps, standpipe systems, and underground water mains. Topics include; fire pump selection, calculating fire pump sizes, testing fire pumps, standpipe locations, types of standpipes, standpipe calculations, and underground water main type sizes, flushing and hydrostatic testing.

### Seminar for Inspection, Testing, and Maintenance of Water Based Fire Protection Systems

FC 101

**Length:** 1 day

This seminar covers inspection, testing, and maintenance of fire protection as outlined by NFPA 25, 2002 edition. Items covered are basic sprinklers, standpipes, underground water mains, and fire pump testing and maintenance requirements.

### Plan Review of Automatic Sprinkler System Hydraulic Calculations

FC 102

**Length:** 1 day

This course is designed to teach the fire/building code official the procedures to identify and review the hydraulic calculations for Light Hazard occupancies, Ordinary occupancies, Extra Hazard occupancies, warehouse storage occupancies, and 13R/13D occupancies.

### Most Common Mistakes on Automatic Sprinklers Systems/ Fire Alarm Systems

FC 103

**Length:** 1 or 2 hrs

These courses are designed to teach fire/building officials the common design mistakes to look for when doing a plan review of sprinkler and fire alarm systems.

## ***On The Lookout For Quality Employees?***

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Individuals with the knowledge, skills and abilities you seek are waiting for you to find them. Go online and let the IAPMO Career Center bring you together.

Prospective employers can post available positions and search effortlessly through job seekers' resumes to find the candidates who best suit their needs. And since the site is focused exclusively on the plumbing and mechanical industries, there should be no shortage of qualified candidates.

See for yourself at <http://careers.iapmo.org> or contact IAPMO at [alan.wald@iapmo.org](mailto:alan.wald@iapmo.org) for more information.



## Focus Series – 300 Level

### Building Code Plan Review Concepts

PR 105

**Length:** 1 or 2 days

This seminar will cover these areas within the IBC/IFC. Attendees will be taught the different Use Group Classifications and how to identify them. Mixed Use Groups will also be addressed along with barrier separation walls. The seminar will also cover types of construction, IBC Table 601 & 602 allowable construction. Examples will be presented on the construction types. Next, fire walls, fire barriers, fire partitions, etc. what they are and how can you identify them. The workbook also includes building height and area calculations along with open perimeter calculations.

### Fire Protection Systems IBC/ IFC Chapter 9

FC 104

**Length:** 1 day

This seminar will specify when fire protection systems are required in the IBC and IFC. Additionally the design, installation, and operation of the fire protection system will be discussed. Automatic sprinklers, alternative automatic and suppression systems, standpipes, portable fire extinguishers, fire alarm, fire alarm signaling, smoke and heat vents, and fire flow requirements based on the *International Building Code* will be discussed. When, where, and why these systems are required will be taught.

### Automatic Sprinkler Plan Review of Warehouse and Storage Occupancies

PR 106

**Length:** 1 or 2 days

This seminar covers the basic requirements for high piled combustible storage, classes of commodities, ESFR warehouse sprinkler systems, general storage, rack storage, pallet storage, and hydraulic calculation of warehouse systems.

### Plan Review of Portable Fire Extinguishers

PR 107

**Length:** ½ day

This course is designed to teach the fire/building code official the basic requirements to review portable fire extinguisher selection, spacing, proper use, inspections, and plan review.

### Idle Pallet Storage

FC 105

**Length:** 1 or 2 hrs

This course is designed to teach the fire/building code official to identify pallet storage types and the different hydraulic densities based on pallet storage height, arrangement, and combustibility.

## 2010 California Codes

If you work or design for California projects, you need the latest editions of the *California Plumbing Code* and *California Mechanical Code*.

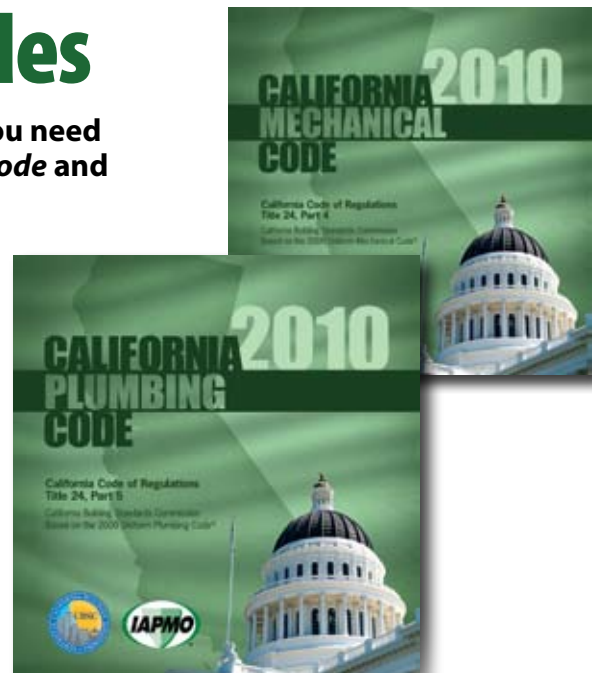
■ Developed by the industry for the industry, the CPC includes specific:

- Medical Gas and Vacuum Systems
- Manufactured/Mobile Home Parks
- Firefighting Breathing Air Replenishment Systems
- Fuel Gas
- Exhaust Venting
- Private Sewage Disposal Systems
- Installation Standards

The CMC includes specific:

- Fuel Gas
- Sizing of Venting Systems
- One- and Two-Family Dwellings
- Appliances for Installation in Manufactured Housing

- Reduced personal liability from code change omissions — protect yourself and your clients by getting completely up to date
- Build your foundation on more than 80 years experience in the plumbing/mechanical field



# BACKFLOW PREVENTION TRAINING & CERTIFICATION

IAPMO is an ASSE accredited school. Our training and certifications are focused on the ASSE Series 5000 that give the minimum performance requirements for testing backflow and prevention assemblies. It also gives the minimum requirements for Backflow Prevention Assembly Testers, Cross-Connection Control Surveyors, Backflow Prevention Assembly Repairers, Fire-Sprinkler System Cross-Connection Control Testers, and Backflow Prevention Program Administrators/Specialist.

More and more cities, states and local jurisdictions are recognizing the need to have regulations concerning the installation and testing of backflow devices. They also recognize the need to regulate the qualifications of the individuals testing and repairing these devices. As a national certifying agent, ASSE meets the needs of these jurisdictions.

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## **Backflow Prevention Tester Training and Certification**

**Length:** 40 hours

At this forty (40) hour training, participants will be presented with the guidelines used for acceptable practices of testing backflow prevention devices. The participants will also learn the principles of cross-connection control and the methods and devices used to prevent backflow of undesirable substances into water distribution and plumbing systems carrying potable water. Upon completion of the course, the participants will receive sufficient information and skills to pass the American Society of Sanitary Engineers (ASSE) Examination.

On the last day of the training the certification examination will be administered. This consists of a written examination and a hands-on examination. The exam for an initial tester certification consists of a hundred (100) questions. Presently, the initial certification candidate must demonstrate the field test procedure for a reduced pressure principle assembly, double check valve assembly, pressure vacuum breaker assembly, and Spill-Resistant Vacuum Breakers without notes or assistance.

## **Backflow Prevention Tester Re-Certification Training and Exam**

**Length:** 8 hours

At this eight (8) hour training, participants will review the guidelines used for acceptable practices of testing backflow prevention devices. The participants will receive the information and skills to help them pass the American Society of Sanitary Engineers (ASSE) Re-certification Examination. At the end of the training the re-certification examination will be administered. This consists of a written and a hands-on examination. This training is mandatory in order for the tester to re-certify under ASSE general guidelines. The exam for the tester re-certification consists of twenty-five (25) questions. Presently, the re-certification candidate must demonstrate the field test procedure for a reduced pressure principle assembly, double check valve assembly, pressure vacuum breaker assembly, and Spill-Resistant Vacuum Breakers without notes or assistance.

## **Fire-Sprinkler System Cross-Connection Control Tester Training and Certification**

**Length:** 30 hours

This certification course provides the necessary training and testing for individuals seeking certification as a Fire-Sprinkler System Cross-Connection Tester. The course consists of thirty

(30) hours of training culminating in a fifty (50) question examination. During the training portion of the course, participants can expect to discuss the basics of fire-sprinkling cross control testing, as well as safety, product performance, proper test reporting, proper product installation, and backflow assembly test equipment and proper terminology.

## **Backflow Prevention Program Administrator/Specialist Training and Certification**

**Length:** 32 hours

This certification course; provides the necessary training and testing for individuals seeking certification as a Backflow Prevention Program Administrator/Specialist. The course consists of thirty two (32) hours of training culminating in a fifty (50) question examination and a twenty-five (25) question practical examination. During the training portion of the course participants can expect to discuss the basics of hydraulic pertaining to backflow prevention systems and components, safety, cross-connection control containment surveys, product identification and performance, elements of a cross-connection control program, and proper terminology.

## **Backflow Prevention Assembly Repairer Training and Certification**

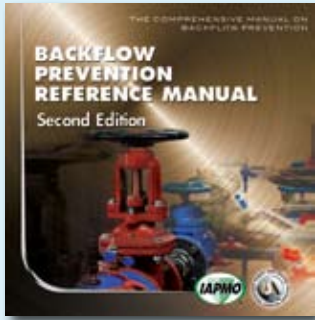
**Length:** 20 hours

This certification course provides the necessary training and testing for individuals seeking certification as a Backflow Prevention Assembly Repairer. The course consists of twenty (20) hours of training culminating in a fifty (50) question examination. During the training portion of the course, participants can expect to discuss the basics of backflow prevention assembly repair, as well as safety, reporting, product performance, product test equipment, and proper terminology.

## **Cross-Connection Control Surveyor Training and Certification**

**Length:** 20 hours

This certification course provides the necessary training and testing for individuals seeking certification as a Cross-Connection Control Surveyor. The course consists of twenty (20) hours of training culminating in a fifty (50) question examination. During the training portion of the course, participants can expect to discuss the basics of cross-connection control surveying, as well as safety, cross-connection control, product performance, conducting a survey, and proper terminology.



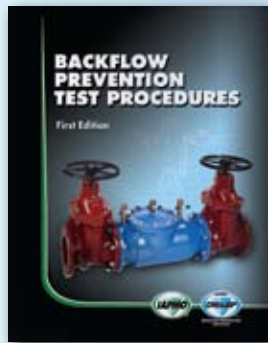
## Backflow Prevention Reference Manual

IAPMO's Backflow Prevention Institute collaborated with the United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada (UA) to develop the second edition of the most comprehensive backflow prevention training manual available. Representing a merging and revision of IAPMO's Backflow Prevention Reference Manual and the UA's Cross-Connection Control Manual, this full color, illustrated reference manual is designed to teach every aspect of backflow prevention and cross-connection control, from identifying and testing the wide variety of backflow prevention assemblies to proper selection and installation of both testable assemblies and non-testable backflow prevention devices. This manual provides instruction on how to recognize degrees of hazard or potential risks to potable

water systems, and whether the proper backflow prevention method, device or assembly has been correctly installed. The manual covers the history of backflow prevention; definitions and devices; backflow prevention hydraulics; testing methods with full, detailed illustrations; an overview of gauges and test kits; trouble shooting guide; cross-connection control surveys; program development; code requirements and installation standards. The manual also contains Appendix A, made up of four separate nationally recognized test procedures.

**Members:** \$108.00

**Non-Member:** \$135.00



## Backflow Prevention Test Procedures

IAPMO DW&BP developed this manual as a resource to be used by students, certified testers and training professionals within the backflow prevention industry. This document contains in full color illustrations, the step by step test procedures used in the testing of backflow prevention assemblies in jurisdictions both within the United States and Internationally. Divided into four sections it includes The One Hose Field Test Procedure, The American Society of Sanitary Engineering Field Test Procedure, The United States Environmental Protection Agency Field Test Procedure, and The Southern California Field Test Procedure.



## Backflow Prevention Magazine

BPI publishes the leading monthly backflow prevention magazine, *Drinking Water and Backflow Prevention*, devoted to every aspect of Backflow Prevention. Articles provide information, introduce products and assist in the awareness of the potential hazards associated with the quality of the drinking water supply. The motto of the IAPMO Drinking Water and Backflow Prevention program is "Dedicated to Water System Safety Worldwide."

**One Year Subscription:** \$45.00

To order your copy, please visit [www.iapmodwbp.org](http://www.iapmodwbp.org) or call **1-800-85-IAPMO**

For new classes scheduled go to <http://www.iapmodwbp.org>

\*Restrictions apply. Please contact IAPMO Education and Training Department for more information 1-877-IAPMO-01 or 708-995-3000. To learn more about the IAPMO Backflow Prevention Training and Certification or to download registration application, please visit us online at <http://www.iapmodwbp.org>

# ELECTRICAL SEMINARS

IAPMO is excited to offer the following National Electrical Code Seminars presented by the International Association of Electrical Inspectors (IAEI).

## Application Series – 200 Level

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### Performing Commercial Electrical Inspections

NEC 101

**Length:** 1 day

This seminar is a must for installers and inspectors alike or for anyone who needs to enhance his or her general understanding of Code rules and how to apply these rules in everyday situations. Based on the current NEC, this seminar will explain, in clear, concise language, code structure involving installation, design and inspections of commercial electrical systems. This seminar goes through a checklist style format for such things as underground rough-in, wall rough-in, ceiling rough-in, services, and grounding and bonding requirements one would encounter in the commercial environment of the electrical installation. Examples of application of the NEC rules to installations and systems will be presented as well as major checklists for inspectors and installers.

## Focus Series – 300 Level

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### One- and Two-Family Dwelling Electrical Systems

NEC 102

**Length:** 1 or 2 days

This comprehensive seminar explains in clear, concise language, pictures and graphics the installation, design, and inspections of electrical systems in new and existing one- and two-family dwellings. The seminar includes the electrical requirements of both the *National Electrical Code (NEC)* and the *International Residential Code (IRC)*. Inspectors, contractors, electricians, and students will find this seminar particularly helpful. This program will assist attendees in making more accurate, thorough, and safer installations and inspections of one- and two-family dwellings.

### IAEI's Soares Grounding and Bonding

NEC 103

**Length:** 1 day

This seminar is a must for those who wish to keep informed and increase their expertise in the grounding and bonding of electrical systems. Completely revised to the current edition of the NEC, it is based on the authoritative text *Soares Book on Grounding* and clearly explains the fundamentals and practice of grounding in easily understood language. Dozens of new and revised color illustrations and photos of actual installations clarify and simplify the fundamental principles of grounding and bonding.

## Code Changes Series – 400 Level

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### IAEI NEC Analysis of Changes

NEC 104

**Length:** 1 or 2 days

This extensive and popular program analyzes the major changes to the NEC. It provides background information as to why a change has occurred and how that change will affect electrical installations. Participants will find this seminar loaded with illustrations, photos, and text that clearly identify and explain the changes and their impact.



## Alaska

### 2009 UPC with Alaska Amendments

**AK 101 (09)**

**Length:** 1 day

Specific for the State of Alaska, this comprehensive seminar, based on the *2009 Uniform Plumbing Code*® provides a complete overview of the Alaska requirements including: water system sizing, drain, waste and vent system design, gas system design and sizing, cross-connection, materials, water heater installation, venting, combustion air requirements and fixtures.

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

### 2010 CPC – Code Changes

**CA 103 (10)**

**Length:** 1 day

In this seminar, participants will learn about the notable changes between the *2010 California Plumbing Code*® and the 2007 edition. Accordingly, the changes are noted during the seminar and supporting information about the changes is provided. General topics such as administration, definitions and general requirements are covered as well as specific topics that include water heaters, water supply and distribution, traps and interceptors, and health care facilities, and medical gas and vacuum systems.

Upon completion of this seminar, participants will be better able to identify and describe the significant code changes that occurred from the previous edition as well as significant additions and deletions from the code.

## California

### 2010 CPC Essentials

**CA 101 (10)**

**Length:** 1 day

This seminar provides an overview of the *2010 California Plumbing Code* as well as a discussion of key changes that have occurred since the last edition. Some of the specific topics discussed are sizing of drainage systems, cleanouts, slope & change of direction of drainage flow, use of joints, drainage fixture units, installation and sizing of building sewers, sumps & sewage ejectors, indirect waste piping, chemical waste, steam and hot water drainage, condensers and sumps, vent sizing and termination, island venting, combination waste and vent, and wet vents.

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

### 2010 CMC – Code Changes

**CA 104 (10)**

**Length:** 1 day

In this seminar, participants will learn about the notable changes between the *2010 California Mechanical Code*® and the 2007 edition. Accordingly, the changes are noted during the seminar and supporting information about the changes is provided. General topics such as administration, definitions and general requirements are covered as well as specific topics that include exhaust systems, duct systems, chimneys and vents, hydronics, steam and hot water boilers, and fuel gas piping.

Upon completion of this seminar, participants will be better able to identify and describe the significant code changes that occurred from the previous edition as well as significant additions and deletions from the code.

### 2010 CMC Essentials

**CA 102 (10)**

**Length:** 1 day

This seminar provides an overview of the *2010 California Mechanical Code* as well as a discussion of key changes that have occurred since the last edition. Some of the specific topics discussed are combustion air openings & sizing calculations, sources of combustion air, ducts and dampers, prohibited sources, vent installation and construction requirements, sizing gravity, induced & forced draft systems, multiple appliance venting, chimneys and vents, mechanical draft systems, return and outside air, area requirements, prohibited sources, limitations, vented decorative appliances, room heaters, overhead radiant heaters, incinerators, direct gas/fired, make up air heaters and individual heaters, clearances & access.

### 2010 Fire Stopping in Fire-Resistive Assemblies for California

**CA 105 (10)**

**Length:** ½ day

Plumbing and mechanical systems are a necessity in building construction. It is often necessary to pass these items through hourly rated fire-resistive floor or wall assemblies. To accomplish this, oversized openings are cut or drilled through the floor or wall. Through-penetration firestop systems are intended to restore the hourly rating of fire-resistive assemblies that have been breached due to penetration by electrical, plumbing or mechanical items. This session will discuss the various materials, systems, and methods tested and approved by Underwriters Labs to maintain fire-resistive ratings.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to fire stopping materials and components as well as describe the basic concepts and code requirements for providing proper fire stopping in fire-resistive assemblies.

# STATE SPECIFIC SEMINARS

## 2010 CPC DWV Provisions

CA 106 (10)

**Length:** 1 day

This seminar provides a more detailed review and discussion of sizing of drainage systems, cleanouts, slope & change of direction of drainage flow, use of joints, drainage fixture units, installation and sizing of building sewers, sumps & sewage ejectors, indirect waste piping, chemical waste, steam and hot water drainage, condensers and sumps, vent sizing and termination, island venting, combination waste and vent, and wet vents.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to drains, waste, and vents as well as describe the basic concepts and code requirements for DWV installations.

## 2010 CPC Fuel Gas Provisions

CA 107 (10)

**Length:** ½ day

This session covers the basics of Gas Pipe Sizing provisions of the *California Plumbing Code*. Included in the discussion are properties of natural gas, three sizing methods, converting Btu/h to CFH, sizing black steel systems, sizing copper tubing systems, and sizing CSST systems.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to fuel gas as well as describe the basic concepts and code requirements for fuel gas installations.

## 2010 CPC Traps and Interceptors

CA 108 (10)

**Length:** ½ day

This four-hour seminar will assist participants in understanding the new Grease Interceptors and the necessary criteria for sizing, application, and installation of FOG disposal systems.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to traps and interceptors as well as describe the basic concepts and code requirements for installations of traps and interceptors.

## 2010 CMC Exhaust Systems

CA 109 (10)

**Length:** 1 day

This 1 day comprehensive seminar provides a more detailed review and discussion including: environmental air ducts and product conveying, commercial hoods and kitchen ventilation, environmental air ducts & product conveying systems, flammable vapor or fumes, product conveying duct, domestic range vents, dryer exhaust duct, heat recovery ventilators, and termination of environmental air ducts.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to exhaust systems as well as describe the basic concepts and code requirements for installations of exhaust systems.

## 2010 CMC Chimneys and Vents

CA 110 (10)

**Length:** 1 or ½ day

This seminar focuses on the *California Mechanical Code* Chapter 8 and discusses the code provisions concerning the installation and design of chimneys and vents. Along with the general provisions of this chapter, this seminar will cover venting specifications, sizing of venting systems, installation, construction, and how to use the numerous tables in this chapter.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to chimneys and vents as well as describe the basic concepts and code requirements for installations of chimney and vents.

## 2010 CMC Combustion Air and Venting

CA 111 (10)

**Length:** ½ day

This four hour seminar addresses the sizing of combustion air ducts for fuel gas burning appliances covered in Chapter 5 of the *California Plumbing Code* and Chapter 7 of the *California Mechanical Code* and Chapter 3 of the IFGC (Part 1). It covers the venting requirements in Chapter 5 of the CPC, chapter 8 of the CMC and chapter 5 of the IFGC (Part 2). Specific topics discussed include, but are not limited to, inside combustion air, the two duct systems, the single air duct system, combined inside and outside combustion air design. An exercise will cover sizing and calculations, short cuts for job site verification and sizing, vent sizing requirements, when gamma tables must be used, and using the gamma tables.

Upon completion of this seminar, participants will be better able to locate and enforce the code provisions pertaining to combustion air and venting as well as describe the basic concepts and code requirements for installations of combustion air systems and venting.

# Massachusetts

## 248 CMR Continuing Education for all

MA 101

### Massachusetts Plumbing and Gas Inspectors

**Length:** ½ day

This four-hour seminar is required for inspector accreditation in Massachusetts and is offered in numerous locations around the state, including Boston, Worcester, Springfield, and Cape Cod. Course topics include code review, discussion on code changes, inspector's issues, including permitting, complaint filing procedures, ethics, etc. Technical content includes, but is not limited to, CSST systems as modified in section 5.03 [6] CMR [gas], venting jurisdictions as per BOARDS policy statement [gas], variance and appeal procedures [plumbing], PVC restrictions and installations [plumbing], cross-connections [plumbing]. Continuing Education for all Massachusetts Plumbing & Gas Inspectors 248 CMR.

## 248 CMR Required Continuing Education for Plumbers and Gasfitters

MA 102

**Length:** 6 hours

This six-hour class is approved to meet the Continuing Education requirement to maintain plumber and gasfitter licensure as mandated by the Board of Examiners of Plumbers and Gasfitters. Also, there is a three-hour course available for gasfitters only. The topics covered in the course change each year as decided by the Board of Examiners. The course is offered in numerous locations throughout the state. Please visit the following webpage for a calendar of seminars and to register: <http://www.iapmo.org/Pages/Seminar.aspx>.

## Montana

### 2009 UPC with Montana Amendments

MT 101 (09)

**Length:** 4 hour CEU

Specific for the State of Montana for renewal of state plumbing license. This seminar is based on the *2009 Uniform Plumbing Code*® and the Montana amendments and plumbing licensure. Topics covered include administration, definitions, general regulations, fixtures, water heaters, water supply and sizing, drainage, indirect wastes, vents, traps, storm drainage, and fire stopping. This seminar is also available online at [www.iapmo.org/pages/onlinelearningcenter.aspx](http://www.iapmo.org/pages/onlinelearningcenter.aspx).

Upon completion of this seminar, participants will be able to locate relevant code sections, discuss the major concepts and provisions in each chapter, describe how the code is organized, determine if systems and components are installed according to the code, and apply the provisions in the execution of their jobs.

## Oregon

### 2010 Oregon Mechanical Specialty Code Update

OR 101

**Length:** 6 hours

This course covers the important code changes between the *2010 Oregon Mechanical Specialty Code* and the previous edition. In-class discussion focuses on where the important changes are, why the changes were made, and why they are significant to those who apply the code. Participants will also be made aware of potential pitfalls they may encounter as a result of these code changes.

## Massachusetts Licensed Plumbers and Gas Fitters

# Mandatory Continuing Education required by 248 CMR 11.00

IAPMO offers these classes statewide on Saturdays, Weekdays and Evenings with the best instructor team in the State.

- Licensed Plumbers must complete 12 hours of Sessions 3 & 4
- Licensed Gas Fitters must complete 6 hours of Sessions 3 & 4



[www.iapmo.org](http://www.iapmo.org)  
1-877-427-6601 ext.3005



Public health and safety is a primary concern for IAPMO. In an effort to provide individuals with as much knowledge as possible to prevent job site accidents and injuries, IAPMO is a provider of Occupational Safety and Health Organization (OSHA) Construction Industry Training. A 10-hour and 30-hour training programs are available for your group. Both programs are designed to teach students about various OSHA requirements and, more importantly, how to stay safe on the job site. The instructor for these programs is certified in both OSHA 10 and OSHA 30.

## 10-Hour Program

- ◆ Introduction to OSHA, including:
  - ❖ OSH Act/General Duty Clause 5(a)(1)
  - ❖ General Safety and Health Provisions, Competent Person, Subpart C
  - ❖ Recordkeeping (CFR Part 1904)
- ◆ Electrical, Subpart K
- ◆ Fall Protection, Subpart M
- ◆ Personal Protective and Lifesaving Equipment, Subpart E
- ◆ Materials Handling, Storage, Use and Disposal, Subpart H
- ◆ Tools - Hand and Power, Subpart I
- ◆ Scaffolds, Subpart L
- ◆ Cranes, Derricks, Hoists, Elevators, and Conveyors, Subpart N
- ◆ Excavations, Subpart P
- ◆ Stairways and Ladders, Subpart X

## 30-Hour Program

- ◆ Introduction to OSHA Standards – at least Two Hours
  - ❖ OSH Act/General Duty Clause 5(a)(1)
  - ❖ 29 CFR 1904, Recordkeeping
  - ❖ Subpart C: General Safety and Health Provisions, Competent Person
  - ❖ STD 3-1.1, "Clarification of Citation Policy Regarding 29 CFR 1926.20, 29 CFR 1926.21 and Related General Safety and Health Provisions"; Safety Programs
- ◆ Electrical, Subpart K
- ◆ Fall Protection, Subpart M
- ◆ Occupational Health and Environmental Controls (emphasis on Hazard Communication), Subpart D
- ◆ Health Hazards in Construction, Subpart D
- ◆ Personal Protective and Lifesaving Equipment, Subpart E
- ◆ Fire Protection and Prevention, Subpart F
- ◆ Materials Handling, Storage, Use and Disposal, Subpart H
- ◆ Tools - Hand and Power, Subpart I
- ◆ Welding and Cutting, Subpart J
- ◆ Scaffolds, Subpart L
- ◆ Cranes, Derricks, Hoists, Elevators, and Conveyors, Subpart N
- ◆ Motor Vehicles, Mechanized Equipment and Marine Operations; Rollover Protective Structures and Overhead Protection; and Signs, Signals and Barricades, Subparts O, W and G
- ◆ Excavations, Subpart P
- ◆ Concrete and Masonry Construction, Subpart Q
- ◆ Steel Erection, Subpart R
- ◆ Stairways and Ladders, Subpart X
- ◆ Confined Space Entry



For information regarding OSHA Training, please contact **Maria Sol Alba**, *Training and Education Manager* at [sol.alba@iapmo.org](mailto:sol.alba@iapmo.org) or submit the Information Request Form located in back of this catalog.

# CEU INFORMATION

IAPMO's vigorous efforts to provide the most comprehensive resources and convenient support to its chapters and members have resulted in becoming an Approved Provider of Continuing Education in many jurisdictions. Our goal is to register our seminars in every jurisdiction that is home to IAPMO members, so that all may fully benefit from our training offerings as a means of fulfilling their Continuing Education requirements. Please check our website for updates <http://www.iapmo.org/Pages/ContinuingEducation.aspx>.

Region	State	Approving Agency	Education
All Regions	All States	IAPMO Certification Program	All IAPMO Seminars, Online Learning Center Courses and Code Hearings
All Regions	All States	American Institute of Architects (AIA)	IAPMO Seminars and Online Learning Center Courses
All Regions	All States	USGBC	Approved Online Seminars
1	Alaska	State Department of Commerce	All UPC Seminars
	California	State of California	All CPC/CMC Seminars
	Oregon	Department of Consumer and Business Services	2010 Oregon Mechanical Specialty Code Update
	Washington	Department of Labor and Industries	All UPC Seminars
2	Montana	State of Board of Plumbers	All UPC Seminars
	South Dakota	State Plumbing Commission	All IAPMO code-related Seminars
4	Iowa	Iowa Plumbing & Mechanical Systems Board	2009 UPC and UMC seminars
	Kansas	Kansas PHCC	All IAPMO Seminars
	Nebraska	Each city	Individual city requirements
6	Massachusetts	Board of Examiners – Plumber and Gasfitters	Journeyman and Masters Plumbers and Gasfitters CE Course
	Pennsylvania	Department of Labor & Industry	All IAPMO Seminars



IAPMO is an approved provider of Continuing Education in numerous jurisdictions, municipalities, and states. Please visit <http://www.iapmo.org/Pages/ContinuingEducation.aspx> for more information.



IAPMO is a Registered Provider with the American Institute of Architects Continuing Education Systems.



IAPMO is a USGBC approved provider. Education Providers support the continuing education of LEED professionals seeking to meet GBCI credentialing maintenance requirements.



IAPMO is recognized as an Authorized Provider by the International Association for Continuing Education and Training (IACET).

# Training Offerings for All Code Disciplines

## *Supporting Your Educational Needs*

IAPMO is dedicated to serving all of the training needs of the members and jurisdictions that it serves. Our training staff is able to provide training on topics and codes beyond the plumbing and mechanical codes.

If your jurisdiction is in need of high-quality training on a code, topic, or job skill such as Plans Examination, not traditionally associated with IAPMO, our training staff and vast instructor resources can provide the same expert training on any code your jurisdiction may use, including the:

- ◆ International Building Code (IBC)
- ◆ International Fire Code (IFC)
- ◆ International Fuel Gas Code (IFGC)
- ◆ International Residential Code (IRC)
- ◆ International Existing Building Code (IEBC)

For more information regarding training, please contact:

**Maria Sol Alba**, *Training and Education Manager* at [sol.alba@iapmo.org](mailto:sol.alba@iapmo.org) or submit the Information Request Form at the back of this catalog.

## Special Accommodations

IAPMO takes its social responsibility seriously and is strongly committed to providing reasonable accommodations to test candidates, code development delegates, and seminar participants, who have documented disabilities recognized under the 1990 Americans with Disabilities Act (ADA).

To ensure equal opportunity for all qualified persons, all requests for accommodations will be evaluated in accordance with IAPMO's administrative procedure and criteria.

To request special accommodations, email your request to [career.services@iapmo.org](mailto:career.services@iapmo.org).

To download application, visit [www.iapmo.org/pages/hireiapmototeach.aspx](http://www.iapmo.org/pages/hireiapmototeach.aspx).



# SEMINAR REQUEST FORM

Organization \_\_\_\_\_

Contact \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

E-mail \_\_\_\_\_ Member Number \_\_\_\_\_

Shipping Address \_\_\_\_\_

Billing Address \_\_\_\_\_

Special Instructions \_\_\_\_\_

.....  
Seminar Title \_\_\_\_\_

Date Requested \_\_\_\_\_

Location \_\_\_\_\_

Phone on Day of Seminar \_\_\_\_\_

Seminar Schedule Start \_\_\_\_\_ End \_\_\_\_\_

Anticipated Number of Attendees \_\_\_\_\_

- Add this seminar to the IAPMO website schedule
- This seminar will be open to participants outside of this group

### 3 ways to return this completed form:

Mail: IAPMO Chicago Regional Office  
 18927 Hickory Creek Drive, Suite 140  
 Mokena, IL 60448  
 Attention: Maria Sol Alba

E-mail: [sol.alba@iapmo.org](mailto:sol.alba@iapmo.org)  
 Fax: 708-479-6023

# Safe Then... **SAFE NOW**

IAPMO's *Uniform Plumbing Code*<sup>®</sup>  
has ensured clean, healthy drinking  
water for generations.

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the 2009 codes today!*



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