



Spring 2012

Center for Continuing and  
Professional Studies, Manhattan

AIA Continuing Education  
Professional Development Series for  
Architects and Professional Engineers



**Pratt** 125

Pratt Institute Center for Continuing and Professional Studies located in Chelsea at 144 West 14th Street announces the Professional Development Series for Architects and Professional Engineers.

Drawing on Pratt's historically superior architecture curriculum, we are pleased to announce our expanded program registered with the American Institute of Architects, Continuing Education System (AIA/CES). The Professional Development program guarantees excellent instruction and a forum for exchanging ideas. Classes are determined by the subject matters that are most needed by practitioners.

As an Authorized Autodesk Training Center, Pratt Manhattan's Center for Continuing and Professional Studies offers quality education in accordance with the AIA/CES criteria. For additional AIA/CES approved courses in AutoCAD, Vectorworks, form•Z, and more, please call us at 212-647-7199 for a brochure or visit our website at <http://prostudies.pratt.edu>.

### **For the Architect**

New York State Licensing Board law requires architects to complete 36 professionally related continuing education hours for every three-year registration period. Of the 36 hours, 24 must relate directly to HSW issues.

### **For the Professional Engineer and Land Surveyor**

Every New York State licensed and registered professional engineer and land surveyor must complete continuing education. Professional engineers will be required to complete 36 hours of continuing education during each three-year registration period. Land Surveyors will be required to complete 24 hours of continuing education during each three-year registration period. Please see courses with PDH's noted.

### **State Approval**

It is your responsibility to check with the state licensing boards as to whether or not a course is acceptable to meet its continuing education credit requirements. Visit Pratt's website at <http://prostudies.pratt.edu> for courses not acceptable to NYS or see courses that state: *Not accepted by NYS for LU, PDH credit.*

For more information, visit the website for the New York State Education Department, Office of the Professions at <http://www.op.nysed.gov/>.

### **Home Inspection Courses and Reciprocity**

All 10 courses taught by Dale Paegelow at Pratt CCPS are AIA-approved for continuing education. No matter what state you live in, you will earn credit as a licensed architect or engineer by taking continuing education courses. But what if you also practice Home Inspection under your license as an architect or engineer in the State of New York or the State of Connecticut? All of Dale Paegelow's courses have reciprocity with Connecticut for licensed home inspectors, architects, and engineers and are approved by the State of New York, as well for licensed home inspectors. For example, you can take Residential Electrical Systems and How to Evaluate Them Holistically at Pratt and receive AIA credit in any state (say New York), PLUS you can submit your transcript to the State of Connecticut and the State of New York and earn continuing education credits toward your home inspection licensing requirements in these states. You have attended one course and received credit from two states. This is also true for home inspection national organizations such as ASHI or Inter-NACHI. Thus, completion of one of

Dale Paegelow's courses will earn LU/PDH credit in three places: New York, Connecticut, and ASHI.

### **Pratt AIA On-site Offerings**

These lectures can be delivered on-site to corporate clients. For further information, please contact Karen Adler Miletsky at [kmiletsk@pratt.edu](mailto:kmiletsk@pratt.edu).

### **Registration Deadlines**

Registration deadlines for all courses are one week prior to course start dates, unless otherwise noted. Exceptions will be allowed based on space availability. We recommend that you register early.

### **VA Benefits for Certificate Program**

This program is approved for veterans and other eligible persons under the GI Bill for education. Contact the Department of Veterans Affairs at 1-888-GI BILL1 (1-888-442-4551) or [www.gibill.va.gov](http://www.gibill.va.gov) regarding eligibility. Contact Perry Han at [phan@pratt.edu](mailto:phan@pratt.edu) or Karen D'Angelo at [kdangelo@pratt.edu](mailto:kdangelo@pratt.edu).

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### Certificate Program

#### Sustainable Building, Infrastructure Design and Management

Designers have long been able to meet the needs of their clients and businesses by using their creativity to blend form and function. Today's world of limited resources and changing economic and environmental values requires a new set of tools to design a sustainable world.

This certificate program, Sustainable Building, Infrastructure Design and Management, brings designers into 21st century design by building on their existing design skills and enhancing them with cutting-edge skills and knowledge, enabling them to meet the new goals and challenges of sustainability.

#### Why Choose Pratt Institute?

For over a century, Pratt Institute has combined the practice of art and practicality by educating artists and designers in its traditional art, design, and architecture classes at the graduate, undergraduate, and professional levels.

This program brings Pratt and you to a new level and a new world of art and design, again in a practical way.

You will learn about the driving forces that are changing your client's needs and the tools needed to meet those challenges and design a sustainable world. In short, you will become part of the solution and be able to assist your clients and businesses in succeeding in a carbon constrained world.

Recommended audience: architects, engineers, interior designers, urban planners, facilities and construction management professionals, contractors, and government agency professionals.

**Application Fee:** \$100, non-refundable

**Certificate Requirements:** The certificate program requires the successful completion of all 7 courses, which totals 49 hours of study.

PMPD 600 Climate Change Fundamentals for Design and Management Professionals

PMPD 601 Designing and Renovating Carbon Neutral Buildings

PMPD 602 Performance Modeling for Carbon Neutral Buildings

PMPD 603 Sustainable Standards for Buildings and Infrastructure—LEED, BREAM, Energy Star

PMPD 604 Energy, Greenhouse Gas, Weatherization Audits, and Capital Planning

PMPD 605 New Technologies—Smart Grid and Smart Buildings

PMPD 606 Capstone Project—Sustainable Building and Infrastructure Design and Management

# Course Descriptions

## **A Guide to Sustainable Materials for High Performance Buildings**

This introductory course lists sustainable products, services, life cycle assessment programs, and their manufacturers. This course provides a key insight on the green attributes of each product and the most critical green issues for each product category. The course was created to provide products and services associated with LEED® credit achievement or to specify products to comply with a specific validating methodology.

### **Course Outline includes:**

- I Products and how they affect green building costs
- II Products, services, distributors, and suppliers for each of the product categories
- III An integrated interactive discussion between the instructor and the attendees on the pros and cons of these new green products

**Products to be discussed:** Roofing; windows and doors; insulation; indoor finishes, paints and adhesives; lighting; HVAC and R; furniture and furnishings; site work and landscaping.

**Please note:** The owner of Forever Green Training & Sustainable Design and Pratt Institute do not charge for resource listings.

Section 1: Tu–W 9 AM–5 PM

1 session Feb 7–8

Section 2: F–Sa 9 AM–5 PM

1 session Mar 30–31

Irene Santoro (all sections)

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 665 \$345 (*textbook included*)

## **Accessible Design and Construction Requirements of the Fair Housing Act: Are You Covered?**

The Fair Housing Amendments Act of 1988, among other federal accessibility laws, requires that newly constructed multifamily residential buildings be designed and constructed to provide access to people with disabilities. A violation of these federal laws perpetuates discriminatory housing practices. This presentation will showcase lessons learned as a result of the presenters real world experience as the fair housing expert for the plaintiff's attorneys in the largest case filed to date against a top five REIT for widespread national fair housing violations.

### **Course Outline includes:**

- I General scoping requirements of federal accessibility laws
- II Safe harbors for compliance with the Fair Housing Act
- III Seven design and construction requirements of the Fair Housing Act
- IV Common design and construction violations of Fair Housing requirements

F 1–4 PM, session Mar 16

Peter A. Stratton

3 AIA/HSW LU's/SD's, 3 PDH's

PMPD 711 \$195

## **Accessible Design and Construction**

### **Requirement: Section 504 of the Rehab Act as They Apply to HUD-Funded Projects**

Federally funded design and construction triggers the requirements of Section 504 of the Rehab Act of 1973, an often misunderstood federal accessibility law which seeks to prevent discrimination based on disability under any program or activity receiving federal financial assistance. Learn how to apply the scoping provisions of the law and the requirements of its referenced technical criteria, the Uniform Federal Accessibility Standards (UFAS), to federally funded multifamily housing projects.

### **Course Outline includes:**

- I Overview of federal accessibility laws
- II Scoping requirements of Section 504 of the Rehabilitation Act as they apply to new construction and alterations
- III The Uniform Federal Accessibility Standards (UFAS)
- IV Case studies: Common design and construction oversights

Th 1–4 PM, 1 session Apr 26

Peter Stratton

3 AIA/HSW LU's/SD's, 3 PDH's

PMPD 709 \$195

## **Accessibility and its Relationship to Sustainable Design**

Buildings that are not accessible are not sustainable. Settlements and other legal agreements reached between developers and the courts have resulted in the substantial renovation of newly constructed buildings to incorporate legally required accessibility. If a newly constructed sustainable building must be substantially renovated to incorporate accessibility, how truly sustainable is it? The financial benefits that result from incentive programs for sustainable development mean nothing when compared to the potentially extreme cost to substantially renovate buildings which fail to incorporate legally required accessible design and construction. This presentation will focus on helping to ensure legally required accessibility compliance during design development and construction to produce a truly sustainable project.

### **Course Outline includes:**

- I Brief overview of accessibility laws, codes, and standards
- II Detailed discussion on the LEED for Neighborhood Development (LEED ND) Visitability and Universal Design credit and its relationships to accessibility requirements
- III A review of the LEED for Homes Approved ID Request: *Visitability and Universal Design*
- IV An examination of the linkages between the goals of sustainability and accessibility
- V Project examples and case studies

Th 1–4 PM, 1 session Feb 23

Mark Jackson

3 AIA/HSW LU's/SD's, 3 PDH's

PMPD 710 \$195

### Adaptive Reuse Re-Imagined

An existing structure presents many opportunities and many challenges. Architects are sometimes reluctant to use the existing infrastructure, hesitant to assume responsibility for unforeseen conditions, or do not recognize the valuable resource they have. It is vitally important to understand what is possible given new technologies. Part of the challenge is to discover hidden features of a property to both preserve and improve the facility by applying creativity and taking the care necessary to envision the end product. This course examines the conceptual underpinnings as well as the methods, materials, and process of reconstructing and adding to an older building.

#### Course Outline includes:

- I Survey existing conditions, code, and zoning
- II Planning for preservation (old vs. new), building charm and interest
- III Permitting process, the construction process, and case studies

Th 9 AM–5 PM, 1 session Mar 1  
Steven Zalben, AIA, NCARB, LEED® AP  
7 AIA/HSW, LU's/SD's, 7 PDH's  
PMPD 894 \$295

### Analysis of Continuous Spanned Beams I

A popular choice for the analysis of continuous beams later to be used in computer programs solutions has been a classical method, known as the force method in the structural engineering community among engineers and architects. This method had become the engineer's tool for designing continuous beams and was deservedly recognized as the alternative method to that of moment distribution established by Hardy Cross. This seminar gives a detailed overview of designing long spanned continuous beams providing the engineer/architect with the geometric and physical properties of the beam, rendering a more effective solution to the design as well.

#### Course Outline includes:

- I Structural engineering principles: virtual work, bending of a beam segment, angle changes along a beam, moment area method, reciprocal relations along a beam, moment distribution
- II Layout and solution of the  $n$  linear equations of the continuous beam's geometry to its  $n$ th degree of indeterminate forces. From the solution, a pictorial diagram will show the beam's structural response to the loads acting upon it.

Th 9 AM–1:30 PM, 1 session May 3  
Kenneth Wagner, PE  
4 AIA/HSW LU's, 4 PDH's  
PMPD 958 \$199

### Analysis of Continuous Spanned Beams II

Established in long usage for the structural analysis of continuous beams, later to be implemented in computer program solutions, the classical method known as the displacement method is today's selected mechanism for the design of continuous beams, the alternative to

both that of the force method and moment distribution as well.

This seminar will give an in-depth view of an easier and more effective solution for continuous beams than that of the force method.

#### Course Outline includes:

- I Theory of angle changes along a beam
- II Moment area method
- III Stiffness factors for structural elements
- IV Displacement method description
- VI Linear equations for rotations
- VI Moment distribution
- VII Moment diagram for the structural continuous beam

F 9 AM–1:30 PM, 1 session May 4  
Kenneth Wagner, PE  
4 AIA/HSW LU's, 4 PDH's  
PMPD 959 \$199

### An American Revolution:

#### The Invention of Balloon Framing and The History of Wood Frame Architecture in America

We survey the last 400 years of wood framing in this country with a particular emphasis on vernacular domestic architecture. Starting with the house building methods the colonists brought with them, we look at how Americans began to take advantage of the sumptuous supplies of timber here. The course identifies particular styles of design that begin to emerge such as Greek Revival and Federal. We focus on the remarkable and little known story of the invention of Balloon Framing. This caught on rapidly and moved West over the course of the next 50 years abetting the occupation of the Western Territories. Balloon framing also fed our avid interest in a wide range of house styles, making the variety of American houses the most diverse in the world. Carpenter Gothic, Stick Style, Eastlake, Queen Anne, Second Empire, and Shingle Style all emerged from this invention. This seminar ends with a discussion about the future of domestic construction methods.

#### Course Outline includes:

- I A review of Timber Framing and its origins in England
- II Chicago circa 1830
- III Balloon Framing: Two men—which one is the actual Inventor?
- IV The Dissemination of the idea in 19th-century
- V Platform framing and other improvements
- VI Emerging American house styles after 1850
- VII The role of architects versus patter books in domestic architecture

Sa 9 AM–4 PM, 1 session Feb 25  
Warren Ashworth, RA  
6 AIA/CES LU's, 6 PDH's  
PMPD 940 \$295

# Course Descriptions

## Architectural Acoustic and Noise Control

This seminar is intended for planners, architects, engineers, interior designers, facilities managers, and construction personnel who wish to raise their awareness, sensitivity and technical knowledge of architectural acoustics, noise control, and the related regulations. Though related regulations have existed and been refined over four decades, serious attention is finally being paid to acoustics and noise pollution as awareness increases about the negative impact of noise and poor acoustics to human comfort, health, safety, and welfare as it contributes to irritability, reduced workplace productivity, sleeplessness, anxiety, exacerbation of learning, and hearing disabilities. It makes practical sense that good acoustics and effective noise control be incorporated as determinants in the planning and the design considerations for projects. As an important frontline consideration for government funding of projects, facilities acquisition and construction, noise control, and abatement have become critical determinants for proceeding with such project funding, and the impact of noise pollution is also a critical component of environmental site assessment for facilities development. However, the reality is that acoustic and noise control are often overlooked.

### Course Outline includes:

- I Properties and characteristics of sound wave and noise
- II Institutional standards and regulatory framework
  - Federal, NYS, and municipalities levels
- III Occupational standards for noise control
- IV Indoor acoustics and noise control
- V Outdoor noise and noise abatement

F–Sa 9 AM–5 PM, 2 sessions Jan 27–28

Alfred Yalaju, RA

14 AIA/HSW LU's, 14 PDH's

PMPD 914 \$595

## Architectural Restoration: Motivators and Constraints to the Preservation of Older Structures

This course addresses generating and controlling projects involving architectural restoration, which accounts for a significant portion of all construction. The role of the architect in such projects is pivotal; a pro-active architect with a comprehensive understanding of restoration principals can be instrumental in its success, and can also play a significant role in facilitating these projects. Technical expertise must cover an extremely broad range of knowledge. The architect must be thoroughly familiar, not only with current codes and construction methods, but those of the past as well. The role of the architect in program development, administrative issues and approvals, the technical aspects of restoration, and financial considerations will be explored in depth. Guest speakers with specific areas of technical expertise will participate in open-ended discussions on restoration techniques. Restoration often involves

adaptive reuse or historic preservation, as well as broader planning issues. Some projects simply address restoration and repair, but students will cover the full spectrum of building types, architectural styles, and programmatic requirements.

Beyond the technical and administrative constraints, understanding, identifying, and satisfying funding sources can be determinant as to whether a project is undertaken. The architect's role in the funding process will also be discussed in depth.

### Course Outline includes:

- I Motivators for restoration
  - Identifying the owner's objectives and desires
- II Administrative issues
  - Dealing with municipal authorities, funding sources, and contractors; the role of the architect
- III Technical issues
  - Selecting and sourcing materials, developing method of construction, dealing with specific issues
- IV Construction costs and budgeting
  - The architect's role and responsibilities
- V Examples
  - A representative cross section of projects demonstrating different types (residential single family, multi-family, commercial, municipal), program requirements (adaptive reuse, alteration/addition, pure restoration, historic preservation), and architectural styles.
- VI Discussion
  - Open ended discussion by all participants. Guest speakers would join in.

Th–F 9 AM–5 PM, 2 sessions Feb 9–10

Martin Kravitt, RA

14 AIA/HSW LU's/SD's, 14 PDH's

PMPD 916 \$595

## Basics of Building Performance with Case Studies

The objective of this introductory course is to aid architects, engineers, real property appraisers, realtors, and assessors in the recognition and understanding of building performance components and systems.

To date, there has been little empirical data organized by appraisers or realtors in regard to building performance, especially energy efficiency items and property design and development aspects. As a result, the contribution to market value of such items is difficult to determine. Before appraisers can measure how the market indicates the contributory value of efficient design, development, and component systems, appraisers must be able to recognize and store data to identify and track their influences on value.

### Course Outline includes:

- I Construction components and high performance installations of building envelope, insulation, lighting, thermostats, windows and doors, uv protection technologies, R Values, and ventilation components and systems.

- II Understanding heating and cooling systems, including furnaces, hot water heaters, and air conditioners, including traditional and new high performance options
- III Solar Power systems—photovoltaic, hot water
- IV Geothermal options—open loop, closed loop
- V Heat Distribution Systems

**Recommended audience:** The primary target audience is architects, engineers, real property appraisers, realtors, and assessors seeking continuing education. The course is designed so that it could also have an audience of realtors, building inspectors, and municipality employees who seek training in building performance and sustainability concepts.

Th 9 AM–5 PM, 1 session Mar 22  
 Kathleen Bowen Ha, ASA  
 7 AIA/HSW LU's/SD's, 7 PDH's  
 PMPD 669 \$295

### Brick Essentials

Brick masonry is used in many different ways in the construction industry. Through this seminar you will gain an in-depth understanding of brick masonry and its various uses. Learn about the requirements governing clay masonry as established by the American Society for Testing and Materials (ASTM). The discussion will include standards for both brick masonry units and the mortar used in conjunction with those units. Participants will develop a full understanding of brick by size, shape, exposure limitations, and compressive strength. The advantages of brick to sustainability will also be described. In particular, it will be demonstrated how brick may contribute to as many as 29 LEED points toward certification.

#### Course Outline includes:

- I The history of brick masonry
  - Ancient Times and Modern Times
- II Review of ASTM standards
  - Brick and mortar
- III Shapes, color, methodology
  - Extruded and molded
  - Sand struck, water struck
  - Dyeing, joints
- IV Wall types
  - Drainage walls:
    - Cavity
    - Veneer (wood and steel stud)
    - Rain screen wall
- V Pavers
  - Rigid underlayment, flexible underlayment
- VI LEEDS

Tu 9 AM–5 PM, 1 session Apr 17  
 Brian Trimble  
 7 AIA/HSW LU's, 7 PDH's  
 PMPD 918 \$295

### Capstone Project—Sustainable Building and Infrastructure Design and Management

This seminar will be the capstone project for the Certificate in Sustainable Building and Infrastructure Design and Management. You will be required to complete two in-class projects involving the design and management of sustainable buildings and infrastructure. The projects will involve retrofitting, renovating, or the new construction of residential or commercial buildings, or major projects such as new municipal facilities such as ports and terminals. Each project will focus on sustainable schematic design and management of buildings and infrastructure. The projects will require the use of green standards, and green technologies to meet the mitigation and adaptation levels that will be needed to combat climate change and perform due to the changes from climate change.

#### Course Outline includes:

- I The decision process for identifying environmental goals and standards for the project including greenhouse gas and energy reductions, adaptation to climate change risks and techniques to reduce the heat island effect and storm water runoff.
- II The application of green standards such as BREAM, EPA—Energy Star, USGBC—LEED, to the projects to achieve a recognized and accepted “green project.”
- III The use of modeling and benchmark tools such as Equest and Portfolio Mgr to predict building and infrastructure performance and the ability to meet mitigation and adaptation requirements for climate change.
- IV The design and management of sustainable systems such as solar PV and thermal, green roofs, combined heat and power systems, geothermal systems, and the interface with a “smart grid.”
- V The financial analysis tools to estimate costs and paybacks for the projects and the systems

**Prerequisites:** For those in the certificate program prerequisites include either Climate Change Fundamentals or Carbon Neutral Design and three other courses in the program.

Su 9 AM–5 PM, 1 session Apr 22  
 Tony Gelber, LEED® AP  
 7 AIA/HSW LU's/SD's, 7 PDH's  
 PMPD 606 \$295

### Chronicles of Security Technology in the Age of Terrorism and Natural Disasters

This course was specifically designed for architects and consulting engineers interested in the design of complex security systems for large urban facilities. The program offers a historic and antidotal overview of basic concepts in physical security technology from standard locking hardware to state-of-the-art digital computerized surveillance and monitoring systems. Two nationally recognized experts with experience in all areas of

# Course Descriptions

physical security will describe the effects of IP networks on digital CCTV Surveillance Systems, access control systems, and biometric devices and will emphasize new design criteria to incorporate wide-band Internet networks for all security systems. Case histories of security system successes and failures experienced by the presenters will be discussed. They were directly involved in the introduction of many unique and controversial security projects for public facilities (museums, hospitals, airports) and private complexes such as the World Trade Center, Co-op City, educational institutions, health-care institutions, and other complex structures. Can a security system protect against man-made and natural disasters in this age of potential terrorist attacks or the event that took place on the Virginia Tech campus?

This timely course will explain how to upgrade security without creating a fortress-like environment that may alienate the very public that the building was supposedly built to serve. Every building complex has unique area(s) of vulnerability and the special risk factors in the following structures will be analyzed: museums; schools and colleges; banks; hospitals; hotels; residential and commercial high-rises.

## Course Outline includes:

- I Door locking systems (conventional hardware to wireless smart keys)
- II Card access systems—various card formats—biometric devices
- III Addressable IP CCTV surveillance systems and IT managed networks
- IV Upgrading analog to digital recording formats
- V Analyzing risk assessment vs. basic security solutions
- VI Separating “competent” security consultants from opportunists
- VII Developing specifications and bid package

Tu 9 AM–5 PM, 1 session Mar 27

Charles Schnabolk, PE and Ben Scaglione, CPP

7 AIA/HSW LU's, 7 PDH's

PMPD 952 \$295

## Climate Change Fundamentals for Design Professionals

This seminar is an overview of climate change basics and their relation to the design world. The seminar is the first in the Climate Change Certificate Program, and is designed to give design professionals the basic tools needed to begin to design buildings, interiors, products, transportation, and cities for a carbon neutral world. Designers will learn how to measure and mitigate the carbon footprint, analyze and adapt to climate change risk, and learn carbon neutral design standards.

## Course Outline includes:

- I What is climate change, and what are the effects?
- II What is carbon neutral and how do we measure it?
- III What are the standards?
  - The 2010 and 2030 imperatives
  - College and university presidents climate change commitment

- NYC Stds
- US Mayors climate change commitment
- The Kyoto Protocol
- USGBC LEED

## IV What is mitigation and what tools are available?

- What is a carbon footprint?
- How to measure the carbon footprint
  - Greenhouse gas protocol
  - The World Resources Institute
- How to reduce the carbon footprint

## V What are the risks and how do we adapt?

- Risks—business, regulatory, physical, investment, social
- Risk avoidance and mitigation strategies
- Adaptation—seawalls to power towers

## VI What are the Opportunities?

- Design, design, design
- Carbon neutral buildings
- Carbon neutral products
- Carbon neutral systems
- Carbon neutral cities

Su 9 AM–5 PM, 1 session Jan 29

Tony Gelber, LEED® AP (*all sections*)

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 600 \$295

## Components of Passive Fire Protection

This program provides an overview of code requirements, testing, installation, and inspection of fireproofing, firestopping, and interior finishes. This presentation is intended for design professional, including architects and engineers involved with the design or evaluation of fireproofing, firestopping, and interior finishes.

## Course Outline includes:

- I Fireproofing
  - Overview of the code requirements related to fireproofing and fire-resistance rated construction
  - Laboratory testing procedures and requirements
  - System design, including drawings and specifications
  - Review adequate and inadequate fireproofing system installation procedures
  - Required inspection and testing protocol
  - Review of fireproofing manufacturers and products, as well as new products
- II Firestopping
  - Overview of the code requirements related to firestopping and fire-resistance rated construction
  - Laboratory testing procedures and requirements
  - Review a firestop system design, including drawings and specifications
  - Review adequate and inadequate firestop system installation procedures
  - Outline of required inspection and testing protocol
  - Review of firestopping manufacturers and products, as well as new products
- III Interior Finishes
  - Code requirements and regulations governing the use of interior finishes, upholstered furnishing, and decorative materials in new construction

- What materials and building elements are regulated; interior finish classifications
- Overview of the applicable test standards
- Increase awareness and provide guidance on the complexities; frequently associated with evaluating and specifying interior finishes in compliance with the applicable codes

Th 9 AM–1 PM, 1 session Apr 19  
 James Convery, PE, CPP  
 Michael J. Rzeznik, PE  
 4 AIA/HSW LU's, 4 PDH's  
 PMPD 677 \$195

### Connecting Us: The Arterial Highway System of the New York-New Jersey Region

In combination with the region's transit systems and intercity rail systems, the region's expressways and parkways provide the essential network for mobility of people and goods in the New York-New Jersey Metropolitan Area. This arterial highway system directly moves people in buses, taxis, HOVs, and automobiles, and gives access to the other "people modes," such as bicycle, rapid transit (bus or rail), ferry, etc. Along with freight rail lines, the expressways also move the vast quantities of goods that support the region's economy. Unlike many other areas, the New York-New Jersey region's arterial highway system, including its key bridge and tunnel links, is provided by a multiplicity of governments and authorities, in both states. The roles of the agencies and organizations involved have undergone many changes over the past 100 years, the period within which the present network developed. This course will review that development, focusing particularly on the period from the 1930s through the present. It will examine key influences and "influencers," system milestones, points of controversy, current system status, and the outlook for the future. The course will also present and analyze past, current, and emerging concepts for policy, planning, design, and operations of the arterial highway system.

#### Course Outline includes:

- I The Region's roadways at the turn of the 20th-century
- II Emergence of the automobile (1920s, 1930s)
- III Influences, inside and outside of the United States (1930s, early 1940s)
- IV Bridges and tunnels, linked and not-so-linked (1880s to 1930s)
- V Programs of NYC, NYS, NJ (1920s–early 1940s)
- VI Post-World War II (1950s, 1960s)
- VII Some new twists (1960s, 1970s)
- VIII Maturing of the highway system (1980s, 1990s)
- IX Recent developments (early 2000s)
- X Retrospective, prospective...A look back, and a look ahead

W 9 AM–5 PM, 1 session Apr 25  
 Leon Goodman, PE, PTOE  
 7 AIA/CES LU's, 7 PDH's  
 PMPD 924 \$295

### Construction Cost Estimating

This course for project managers, architects, engineers, and other construction personnel goes beyond the unit pricing and cost book approach, examining how the various trades arrive at their bids. The course will be taught by a team of professional estimators whose in-depth knowledge of New York City construction practices will give an added dimension and relevance to each topic.

#### Course Outline includes:

- I Basic estimating procedures for CSI Divisions 2 through 9
- II Determining the cost of General Conditions
- III An overview of Bid Day procedures

**Prerequisite:** Blueprint Reading, Construction Methods & Materials or equivalent experience.

M 6–9 PM, 10 sessions Jan 30–Apr 2  
 George Lawrence, CPE  
 Gerald Ratner, CPE  
 Alex MacKenzie, CCI  
 30 AIA/CES LU's, 30 PDH's  
 PMCM 104 \$685

### Construction Specifications Writing

Learn specifications writing techniques that give you a level of confidence required to research, evaluate, write, and edit construction specifications.

Learn correct specifications writing language, use master electronic specifications systems, and use the Internet to research, evaluate, and specify products and systems for construction.

#### Course Outline includes:

- I Specifications writing, history of development to present
- II Organization of a project manual
- III Specification writing techniques, structure, and language
- IV How the contractor views specifications: discussion of *The Contractor's Guide to Change Orders* written by Andrew Civitello
- V Use of master specifications systems
- VI Researching and producing specifications using the Internet

F–Sa 9 AM–5 PM, 2 sessions Apr 27–28  
 Steven Danielpour, AIA, CCS, LEED® AP  
 14 AIA/HSW LU's, 14 PDH's  
 PMPD 836 \$595

### Designing and Renovating Carbon Neutral Buildings

This seminar will show architects, engineers, and interior designers how to design and renovate carbon neutral buildings. Architects, designers, and engineers will learn how to measure and estimate energy use and greenhouse gas emissions, design to reduce energy and greenhouse gasses in both embedded and operational aspects, adapt structures to the effects of climate change, and learn which software tools are needed.

# Course Descriptions

## Course Outline includes:

- I **Review of**
  - Causes and effects of climate change
  - Procedures for measuring and mitigating greenhouse gas emissions
  - Green design standards
- II **Basic overview of energy and greenhouse gas calculations in reference to designing for carbon neutral buildings**
- III **Overview of USGBC LEED green building standards**
  - LEED-certified, silver, gold, platinum
  - New construction, renovations, existing buildings
- IV **Overview of software tools available to measure and predict greenhouse gas emissions**
  - DOE 2, Equest
- V **Carbon and energy footprints in structural as well as operational building systems**
  - Embedded energy and carbon
  - Operational energy and carbon
- VI **Case studies of leading carbon neutral buildings**
  - South London, NYC
- VII **Design charette for a carbon neutral building (in class)—new construction**
  - Green your design team, Brainstorm problems and solutions
  - Set criteria for design decision making
  - Design carbon neutral building systems
- VIII **Design charette for a carbon neutral building (in class)—major renovations**
  - Analyze footprint of existing building
  - Set design criteria for the renovation
  - Design a carbon neutral renovation

Su 9 AM–5 PM, 1 session Mar 4  
Tony Gelber, LEED® AP  
7 AIA/HSW LU's/SD's, 7 PDH's  
PMPD 601 \$295

## Drainage and Hydrology in NYC

The introductory course in our Urban Green Infrastructure foundation series, this seminar is intended for contractors, planners, engineers, architects, landscape architects, construction managers, and green infrastructure enthusiasts who seek New York City specific information regarding the natural and infrastructural systems influencing the design, construction, and maintenance of urban green infrastructure. For this seminar "green Infrastructure" will refer to the use of green roofs, walls, parks, expanded roadside plantings, porous pavements, and other innovative technologies that allow for rainwater to seep into soils and be taken up by plants rather than being funneled off to overwhelm our sewer systems and trigger combined sewer overflows (CSOs). New York City struggles with nearly 30 billion gallons per year of CSO events. Green infrastructure treats rainwater as a resource rather than a waste. It offers a cost-effective solution to mitigating the City's sewer overflow problems. Learning from current green infrastructure professionals, students will

gain an understanding of NYC's unique water management infrastructure and natural systems that influence green infrastructure implementation.

## Course Outline includes:

- I **NYC's watershed and sewer shed fragmentation and connectivity**
- II **Hydrology of NYC including discussion of hydrographs, groundwater, water flow, percolation and run-off**
- III **Geology of NYC: types of soils, soil conditions, function, and specification**
- IV **Organizational chart of key players in green infrastructure implementation**
- V **NYC's natural geography and its built environment boundaries that influence prioritization of green infrastructure**
- VI **Site assessment**

**Recommended audience:** Contractors, engineers, landscape architects, architects, planners, construction managers, and green infrastructure enthusiasts.

Section 1: Sa 9 AM–5 PM

1 session Apr 14

Section 2: Sa 9 AM–5 PM

1 session Nov 5

Richard Shaw, PhD, Zhonggii Cheng, PhD,

Raymond Palmers, PE,

Kate Zidar, Bryan Quinn

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 706 \$295

## Educational Facilities Noise Control

This seminar is intended for planners, architects, engineers, educators, facilities managers, and construction personnel who wish to raise their awareness, sensitivity, and technical knowledge of acoustics and noise control, related standards for educational facilities planning, design, construction, and maintenance with a focus in classrooms and lecture halls. It is well established that young children require optimal conditions for hearing, comprehension, and sustainable attention-span suitable for learning, as different from adults who have mature focus and well-developed listening skills. The negative impact of poor acoustics is well established to create a barrier in pupil's learning abilities, attention-span, and speech intelligibility. Acoustical and noise control performance standard ANSI/ASA S12.60-2002 has existed for over a decade yet a significant number of schools do not conform to the standard. Conformance to the standard is voluntary except made mandatory when referenced by or adopted in state laws, municipal ordinance, or regulations. It is encouraging that some states, municipalities, and school districts now have regulations which reference and/or have adopted the ANSI/ASA standard. In addition, it is important to bring more awareness to the existence of a useful guide to classroom accommodations under IDEA (Individuals with Disabilities Education Act). On a global basis, some countries have developed standards unique to their national conditions while others have adopted the World

Health Organization (WHO) standards.

**Course Outline includes:**

- I General information, course outline, and objectives
- II Properties and characteristics of sound wave and noise
- III Acoustical standards for classrooms and lecture halls
- IV Architectural acoustics and noise control for classrooms and lecture halls

F 9 AM–5 PM, 1 session Mar 2

Alfred Yalaju, RA

7 AIA/HSW LU's/SD's, 7 PDHs

PMPD 675 \$295

**Energy Benchmarking**



New York City Local Law 84, signed by Mayor Bloomberg on December 28, 2009, requires that buildings over 50,000 square feet are required to benchmark their energy and water usage annually, starting May 1, 2010. Energy benchmarking is an accounting determination of energy and water usage in a facility.

**Course Outline includes:**

- I Definition of Energy Benchmarking
- II Which buildings are affected?
- III Energy units
- IV What do these numbers mean?
- V Comparative building types
- VI What do we do about high-energy usage?
- VII Electric rate tariffs
- VIII Time of day electric rates
- VIII Energy conservation

M 1–4 PM, 1 session Apr 6

Daniel Karpen, PE

3 AIA/HSW LU's/SD's, 3 PDH's

PMPD 717 \$195

**Energy, Greenhouse Gas, Weatherization Audits, and Capital Planning**

This seminar will teach architects, engineers, interior designers, and facility and construction managers to perform audits (energy, greenhouse gas, and weatherization) and then develop capital plans to reduce energy and greenhouse gasses while improving occupant comfort and improving productivity.

**Course Outline includes:**

- I Energy audits
  - Residences, commercial, and industrial buildings, using standard and investment grade practices, monitoring and verification standards, and financial analysis, such as simple paybacks and return on investment (ROI)
- II Greenhouse gas audits
  - Inventories of buildings, fleets, and transport systems using software
  - Development of capital plans to comply with voluntary and mandatory climate change standards
- III Weatherization audits
  - Housing and commercial buildings to improve

occupant comfort and work performance, while reducing energy and greenhouse gasses

- Techniques include R Value analysis, blower door performance testing, and infrared surveys.

**IV Capital plan development**

- Identify goals, set standards to achieve the goals, and utilize savings in energy and greenhouse gasses to finance projects

Su 9 AM–5 PM, 1 session Apr 1

Tony Gelber, LEED® AP

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 604 \$295

**Environmental Site Investigation and Remediation**

This course will provide an overview of the process involved with the investigation and remediation of contaminated property. This work is usually required as a result of regulatory mandates, property transactions, and property redevelopment. It is common for professionals involved in property development to encounter soil and groundwater contamination issues that can affect the design, construction, and cost of the development project. State and federal regulatory programs provide various, and sometimes contradictory, requirements as to what level of investigation and remediation are required depending on the property history and the desired future use.

**Course Outline includes:**

- I Researching a property for a history of potential environmental concerns (non-intrusive methods)
- II Completing site investigation process (intrusive investigations)
- III Understanding types of chemicals that are typically identified during the investigation process (petroleum compounds, VOCs, SVOCs, and inorganic substances)
- IV Types of remedial actions that can be taken to address the contamination identified, including engineering/institutional
- V Controls and active remediation techniques

Th 9 AM–5 PM, 1 session Apr 26

Paul Miller, PE

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 661 \$295

**Estimating Structural Steel Erection**

This course deals with the on-site erection of fabricated structural steel, bar joists and metal deck, and what the estimate must include in the way of equipment, man hours labor, and overhead.

**Course Outline includes:**

- I Contract compliance
- II Relations with other on-site contractors
- III Profit considerations

Sa 9 AM–5 PM, 1 session Mar 24

Alex MacKenzie, CCI

7 AIA/CES LU's, 7 PDH's

PMCM 105 \$295

# Course Descriptions

## Estimating Structural Steel Fabrication

This course deals with reading of structural contract plans and specifications making a meaningful take-off of materials, evaluating man-hours of labor and equipment required to fabricate, finish, and deliver each piece of erection at the site.

### Course Outline includes:

- I Contract compliance
- II Overhead and profit considerations

Sa 9 AM–5 PM, 1 session Mar 10

Alex MacKenzie, CCI

7 AIA/HSW LU's, 7 PDH's

PMMC 106 \$295

## Feng Shui and Architecture

NEW

This seminar offers an overview of feng shui spanning from its ancient origins, to its various schools of interpretation, to its practical application in modern construction. Case studies of buildings erected with and without these principals will be studied and compared. Symbolic and cultural aspects in architecture will be examined including what constitutes a harmonious landscape in accordance with feng shui principals. Discussions regarding what benefits the occupants as well as the interests of the public will be covered. Examination of feng shui strategies that have been used in luxury buildings and in entire cities will be explored.

You will gain a working understanding of the laws and theories of feng shui and discover methods to identify and implement these principles for your own designs.

### Course Outline includes:

- I The ancient origins of feng shui and how it has been shaped through time using modern psychology, urban planning, interior design, and architecture will be presented.
- II The various schools of feng shui (Compass, Landform, Flying Star, Black Hat Sect) will be discussed as well as the core principles of feng shui, which include chi, the Tao, and yin and yang theory. The most popular school of feng shui in the United States, Black Hat Sect, will be the basis for this course.
- III The feng shui map, called the bagua, will be explained in detail and students will learn how to superimpose this map onto their own living spaces, lots of land, various floor plans, and entire cities such as New York City and Amsterdam.
- IV Criteria that are a consideration in the feng shui architecture process such as location, materials, history of the land, proportion, shape, and orientation will be explained.
- V The benefits to the community that feng shui offers, such as health advantages, a fervent utilization of nature, communal harmony, and cultural recognition will be discussed.
- VI Examples of how feng shui principals can have a profound impact in our lives will be looked

at through scientific, psychological, and aesthetic values.

- VII Observations of the flow of energy and how to reevaluate your own floor plans will be studied.
- VIII Case studies of buildings using feng shui principals such as the Hong Kong and Shanghai Bank in China, The Beacon Tower in Brooklyn, and The Trump International Hotel and Tower will be examined. Feng shui adjustments made to benefit the community, such as those to the global sculpture at Columbus Circle, will be discussed.

W 9 AM–5 PM, 1 session May 2

Laura Benko

7 AIA/HSW LU's

PMPD 718 \$295

## Fire Protection Technology

The role and function of fire protection engineering systems are sometimes overlooked during the initial stages of a project. Instead of identifying fire protection as a separate discipline, the systems are often treated as sub-systems bundled into the mechanical and electrical engineering scope of services. As a result, key fire protection needs may be neglected at the critical planning stages of a construction project. Working the systems in at a later date may lead to such problems as a lack of properly sized shafts for fire protection risers, or a water supply that is inadequate to meet both the plumbing and fire protection needs of the building. The objective of this course will be to help participants take full advantage of current fire protection technology by demonstrating its impact on architectural design.

This seminar will provide an overview of fire protection system technologies and their implications on building design. The main focus will be on the state-of-the-art fire suppression and fire alarm systems.

### Course Outline includes:

- I Fire suppression (water-based and gaseous) system types, current materials, and methods
- II Architectural implications and integration of fire suppression
- III Fire alarm system types and "state of the art" device capabilities
- IV Architectural implications and integration of fire alarm systems

**Registration deadline:** Apr 16

Tu 9 AM–12 PM, 1 session Apr 24

Mario Antonetti, PE, Eric Babcock, PE

Richard Thonnings, PE

3 AIA/HSW LU's, 3 PDH's

PMPD 876 \$145

## Freshwater Wetlands

Freshwater wetlands are regulated by Article 24 of the New York State Environmental Conservation Law. This course will cover the law and how it affects freshwater wetlands in New York State. The definition of freshwater wetlands is defined by statute according to vegetation and vegetation types. The NYS DEC publishes official maps of the mapped freshwater wetlands. These wetlands are classified according to size and their ecological functioning. Permits are required for certain activities, including construction, on freshwater wetlands and within a 100-foot buffer zone. Issuance of permits is also subject to SEQRA. In New York City, substantial freshwater wetland areas are located on Staten Island. In Suffolk County, freshwater wetlands contain Black Tupelo trees up to about 700 years old.

### Course Outline includes:

- I Definition of freshwater wetlands
- II Mapping of freshwater wetlands and adjacent areas
- III Wetlands classification
- IV Wetland permits
- V Interaction with SEQRA

M 9 AM–12 PM, 1 session Feb 6  
Daniel Karpen, PE  
3 AIA/HSW LU's/SD's, 3 PDH's  
PMPD 981 \$195

## Full-Spectrum Polarized Lighting Systems

Full-spectrum polarized lighting duplicates the spectral energy distribution and polarization characteristics of natural daylight. This seminar will show you how to design a lighting system that will solve the problems of glare, flicker, and poor color rendition typical of conventional lighting systems. Full-spectrum polarized lighting systems are more energy efficient than any other artificial lighting system, and will slash electrical usage for lighting by 60 to 85 percent. These lighting systems can be used for virtually all interior lighting applications, including offices, retail, commercial space, educational and institutional, and industrial facilities.

### Course Outline includes:

- I The problem
- II What to do about it:
  - Lamps, Ballasts, Fixtures, Glare control
  - Full spectrum polarized lighting
- III Lighting for the electronic office
- IV National energy savings potential

M 9 AM–4 PM, 1 session Apr 23  
Daniel Karpen, PE  
6 AIA/HSW LU's/SD's, 6 PDH's  
PMPD 993 \$295

## Geotechnical Engineering

This course is for architects and civil engineers who want to obtain a basic understanding, or a refresher, of geotechnical engineering. You will also learn when you should seek the advice of a geotechnical engineer, what a geotechnical engineer will need from you, and how

to interpret the information included in a geotechnical report. Case histories will be used to provide examples of the geotechnical process and building code requirements.

### Course Outline includes:

- I Introduction
  - What is geotechnical engineering?
  - When do I need a geotechnical engineer and what should I expect?
- II Soil and rock classification
  - What are the different types of soils and rock?
  - What is the NYC Building Code classification system?
- III Subsurface explorations
  - Methods used and number of borings
- IV Foundation design
  - How is a shallow versus a deep foundation system determined?
  - How does a geotechnical engineer select a pile foundation type?
- V Retaining walls
  - What types of walls are available and what do you need from a geotechnical engineer?
- VI Construction
  - What effect will construction have on adjacent structures?
  - What type of inspection should be performed?

F 9 AM–5 PM, 1 session Apr 20  
Thomas G. Thomann, PhD, PE  
7 AIA/HSW LU's, 7 PDH's  
PMPD 851 \$295

## Go Green Retrofits

This course is designed to help design professionals incorporate sustainability principles into the manufacturing and building renovation process of their facilities and go green. We will look at various businesses that have integrated green initiatives into their corporate structure to obtain environmental and employee health benefits while at the same time realizing the economic benefits of improving their bottom line by reducing costs and increasing profit.

### Course Outline includes:

#### FOR THE MANUFACTURING PROCESS:

- I Establishing a baseline—assessing existing processes and conducting an audit to obtain the metrics to implement profitable green practices in the areas of:
  - Energy usage and water usage
  - Waste water generated
  - Materials usage and waste minimization
- II Methods to be implemented to reduce resources consumed and waste generated and increasing efficiencies in the areas of:
  - Energy consumption and water consumption
  - Waste water generated
  - Waste generation

#### FOR THE FACILITY RENOVATION:

- III Green Building Renovation—facilities utilizing a USGBC Leadership in Energy and Environmental Design (LEED) certified retrofit using either

# Course Descriptions

the LEED — Existing Buildings or LEED — commercial Interiors rating standard as a basis in performing an overhaul of existing facilities, even if certification is not the goal.

- IV Explore the competitive advantage, potential profit, and return on investment that can be realized from implementing the green initiatives.

Sa 9 AM–5 PM, 1 session Mar 31  
Terese M. Kinsley, PE, LEED® AP  
7 AIA/HSW LU's/SD's, 7 PDH's  
PMPD 809 \$295

## Gray Water Heat Recovery

Hot water going down the drain is a largely untapped energy resource. Until the invention of the falling film heat exchanger, it has been impossible to achieve high rates of heat recovery.

The gravity falling film heat exchanger consists of a coil of copper tubing wrapped around a vertical copper drain pipe. The coil of copper tubing pipes the cold water from the street around the drain pipe prior to feeding it, warmed up, to the hot water heater. Recovery rates of 85 percent are possible.

### Course Outline includes:

- I How much energy is used for domestic hot water
- II Proper piping for the installation
- III Residential case studies
- IV Commercial case studies

M 1–4 PM, 1 session Feb 13  
Daniel Karpen, PE  
3 AIA/HSW LU's/SD's, 3 PDH's  
PMPD 953 \$195

## Green Design Versus Historic Preservation

With global warming no longer a scientific guess and renewed attention to it drawing increased development in our inner city communities, an emerging conflict between preservation purists and new-age environmentalists has set the stage for potential battles to be played out at the local historic commission, city hall, and the local community board. This seminar addresses the emerging challenges and conflicts of joining historic preservation with sustainable guidelines and offers ways to resolve these two major forces affecting inner-city development. Class participants will learn what areas in the LEED for Homes sustainable guidelines and the U.S. Secretary of the Interior historic preservation standards are incompatible. The seminar goes further to demonstrate how these inconsistent guidelines can be resolved. Finally, this course shows how building performance can be enhanced in older historic structures and uses an actual historic landmark, a 19th-century single-family residence, as a case study.

### Course Outline includes:

- I Identify sustainable design principles in conflict with historic preservation guidelines
- II Analyze conflicting areas between sustainability

and historic preservation and be able to compile a list of design alternatives

- III Appraise an actual case study that demonstrates the integration of sustainable and historic preservation guidelines

**Registration deadline:** Mar 20  
F 9 AM–5 PM, 1 session Mar 30  
Roy Pachecano, AIA  
7 AIA/HSW LU's/SD's, 7 PDH's  
PMPD 963 \$295

## Green Infrastructure Site Assessment

The key to successful, long lasting green infrastructure is accurate site assessment. This hands-on workshop is the second course in our Urban Green Infrastructure fundamentals series. It is geared toward contractors, planners, engineers, architects, landscape architects, construction managers, and green infrastructure enthusiasts. Working in teams facilitated by a site representative, students will travel to 2–3 green infrastructure sites at varying stages of development to assess site conditions, design specifications, and performance. Students will be expected to travel via subway to sites, and the workshop is at risk of being rescheduled in case of bad weather.

### Course Outline includes:

- I Sub-watershed delineation
- II Core sampling
- III Canopy interception
- IV Percolation testing

**Prerequisite:** Drainage and Hydrology in NYC is a prerequisite for Green Infrastructure Site Assessment.

**Recommended audience:** Contractors, engineers, landscape architects, architects, planners, construction managers, and green infrastructure enthusiasts.

Sec 1: Sa 9 AM–5 PM, 1 session Apr 28  
Instructors TBA  
7 AIA/ HSW LU'S/ SD'S, 7 PDH'S  
PMPD 707 \$295

## Greyfield Development—Unlocking the Doors to New Opportunities

The American landscape is spotted with the remnants of the postwar suburbanization. Waves of development surged from the historic city centers of activity to the pristine suburbs. In the beginning there was simply Main Street. This was followed by decades of new development including prototypes such as the mall, neighborhood center, strip centers, and the emergence of the “Big Box” one-stop shop. New developments continue to evolve to incorporate all the latest retailers, entertainment venues, restaurants, and community activities; the resulting product is a series of economically obsolete, failing, and/or underutilized buildings or land. These sites are commonly referred to as Greyfields. This course will explore what to do with these sites and how to make them viable environments for the future.

### Course Outline includes:

- I Patterns of development

- II Greyfields vs brownfields vs. greenfields
- III Principles for redevelopment
- IV Tools for redevelopment
- IV Going green: site, parking, and building opportunities
- III Case studies
- IV Sketch problems

Tu 9 AM–5 PM, 1 session Mar 13  
 David Robbins AICP, RLA, LEED®  
 7 AIA/HSW LU's/SD's, 7 PDH's  
 PMPD 715 \$295

### Historic Preservation: Techniques and Methods

The National Register of Historic Places documents nearly 75,000 properties listed in the Register since its inception in 1966. With so many buildings declared historic, more and more, architects are discovering that many of their projects require preservation expertise. This course provides you with the technical and theoretical information required for the examination, documentation, and analysis of historic structures and their materials. It will establish a background for the diagnosis and treatment of building pathology.

This course provides the increased historical and technical knowledge needed by architects for the successful solution of design problems involving historic structures. It also enhances aesthetic sensitivity through exposure to problems of restoration, adaptive use, and infill design of differing scales.

#### Course Outline includes:

- I Tools for preserving historic and existing buildings
  - Preservation, restoration, rehabilitation, conservation
- II Commonly used historic materials
  - Masonry (limestone, marble, sandstone, brick, terra cotta), metals, wood
- III Identifying materials and their conditions
- IV Developing methodology to determine repair recommendations
- V Case studies of current projects
  - Analyzing the technical details

Th–F 9 AM–5 PM, 2 sessions May 3–4  
 Lisa Easton, AIA, Kate Lemos McHale, AIA  
 14 AIA/HSW LU's, 14 PDH's  
 PMPD 844 \$595

### Improving Public Health by Greening Your Specifications

This course will discuss the history of green design including research, studies, and experiments that lead to the adoption of the LEED Rating System. Participants learn to correlate studies to green design, understand the LEED rating system, and learn how to implement LEED principles in specifications. The course teaches participants to create and edit Division One General Requirements Sections to cover the procedural and administrative requirements necessary to make sustainable architectural practices a reality. Participants then learn what has to be done to individual specifications sec-

tions to make them green and sustainable. This course prepares the general practitioner with the tools necessary to implement green design principles in contract documents, covers the technical difficulties encountered with documenting compliance, and helps to achieve LEED certification by creating enforceable specifications.

#### Course Outline includes:

- I Correlation between sustainable design practices and the public health
  - History of green/sustainable design
  - Reports and analyses
  - Productivity, health, and well-being
- II LEED credit point system
- III Procedural and administrative requirements for LEED projects (Division 1 general requirements for LEED projects)
  - Section 01352 "LEED Requirements"
  - Section 01524 "Construction Waste Management"
  - Section 01810 "General Commissioning Requirements"
  - Modifications required to other Division One sections
- IV What makes materials sustainable or green
- V Greening technical sections of the specifications

Sec 1: Th 9 AM–5 PM, 1 session Feb 16

Sec 2: Tu 9 AM–5 PM, 1 session May 8

Stephen Danielpour, AIA, CCS, LEED® AP (*all sections*)  
 7 AIA/HSW LU's/SD's, 7 PDH's  
 PMPD 955 \$295

### Improving the Energy Efficiency of Steam Systems

Energy costs continue to go up. This course will focus on improving the efficiency of one-pipe and two-pipe low pressure steam heating systems, typically found in thousands of New York City buildings. Whether a boiler is fired by fuel oil or natural gas, this course will show how to dramatically improve the efficiency of steam heating systems.

#### Course Outline Includes:

- I Payback period calculation for pipe insulation
- II Proper water treatment
- III Solving water hammer problems
- IV One pipe steam systems
  - Venting of one pipe steam systems
- V Two pipe steam systems
  - Thermostatic steam traps
  - Float and thermostatic steam traps
- VI Sizing of replacement boilers
- VII Case studies of actual buildings

M 9 AM–4 PM, 1 session Feb 27

Daniel Karpen, PE

6 AIA/HSW LU's/SD's, 6 PDH's

PMPD 969 \$330 (*textbook included*)

### Indoor Air Quality

Indoor air quality continues to be an important issue in the management of buildings. This course focuses on the prevention, identification, and remediation of indoor air quality problems in buildings. The emphasis

# Course Descriptions

is on proper engineering and architectural design. Since identification of indoor air quality problems usually starts with complaints from building occupants, students learn to implement the surveys needed to identify the source of problems. In many cases, problems may stem from multiple sources because of system neglect and poor design. Remediation, including cost estimating, is also covered.

## Course Outline includes:

- I Prevention
- II Identification
- III Remediation

M 1–4 PM, 1 session Mar 12

Daniel Karpen, PE

3 AIA/HSW LU's/SD's, 3 PDH's

PMPD 951 \$195

## Industrial Facilities Noise Control

This seminar is intended for planners, architects, engineers, process engineering designers, facilities managers, and construction personnel who wish to raise their awareness, sensitivity, and technical knowledge of noise control, related facilities planning, and regulatory considerations relevant to industrial workplace noise exposure. Even with the existence of regulatory requirements, noise control is often given insufficient attention and serious considerations necessary to avoid very costly mitigation measures resulting from prolonged exposure to excessive noise pollution in industrial workplaces and facilities. Prolonged exposure to excessive noise is an established hazard contributing to negative impact on human comfort, health, safety, and welfare; in addition to cause for irritability, reduced workplace productivity, sleeplessness, anxiety, illness, and potential health-related personnel claims. Operating industrial processes with excessive noise in a facility with poor noise control, particularly with human involvement, will very likely cause health issues with facility users, the involvement of OSHA, and may result in the imposition of very costly mitigation measures. It makes practical sense that effective noise control be incorporated as a determinant and critical consideration in the planning, design, and operations of industrial facilities.

## Course Outline includes:

- I General information, course outline and objectives
- II Properties and characteristics of sound wave and noise
- III Overview of standards and regulatory framework
- IV Occupational safety and protection standards for noise control
- V Industrial facilities noise control and protection systems

Sa 9 AM–5 PM, 1 session Feb 25

Alfred Yalaju, RA

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 674 \$295

## Integrating Accessibility

Accessibility for the disabled is not just the law, it is also good practice. It also provides an opportunity to not marginalize those who need to use those facilities but to mainstream accessible components in a way that both the able and the not so able will use those elements together. This is often easily done in new buildings, but not always. It is more of a challenge in trying to retrofit an existing space or building. This course examines the ways in which the ADA and its variants can be used as a guide to accomplish universal accessibility, meeting the spirit of the law and not as a restriction to be met by simply meeting the letter of the law.

## Course Outline includes:

- I The Law: existing, proposed, and exceptions
- II Methods and technology
- III New and retrofit
- IV Case studies

Th 9 AM–5 PM, 1 session Mar 29

Steven Zalben, AIA, NCARB, LEED® AP

7 AIA/HSW LU's, 7 PDH's

PMPD 895 \$295

## Integrating Interior Design Into Building Design: It's Not Just Decorating

With interior designers taking on far more responsibility than simply decorating, the architect's role today in building design weighs more heavily on the design of the building "shell," and less so on the articulation of interior space. This course will explore a variety of interior design strategies and concepts which the architect can employ during the design process to visually and functionally improve our interiors. With an emphasis on residential and light commercial spaces, this class will provide the professional with the resources, sharpened tools and regained confidence to articulate, enhance, and maximize the functionality of our interior environments.

## Course Outline includes:

- I Brief history of interior design
- II Architect vs. interior designer
- III "Spatial" programming
- IV Interior design elements and principles
- V Practical applications and design features
- VI Use of space
- VII Furniture layouts
- VIII Spatial clearances
- IX Building code, interior finishes, and safety
- X Sustainable interior materials
- XI Sketch problem

Sa 9 AM–5 PM, 1 session Mar 3

Abby Schwartz, RA, SARA

7 AIA/HSW LU's/SD's

PMPD 668 \$295

## Integrating Landscape into Urban Architecture

This seminar is for design professionals looking to integrate landscape into urban architectural situations. Its emphasis is on planting on slabs and containers; exposures; and state of the art concepts dealing with

wind, drainage, irrigation, and environmental conditions. Architectural integration of play areas, sitting areas, special features (fountains, sculpture, etc.) and streetscapes are explored.

**Course Outline includes:**

- I Products for waterproof membranes, soils, filler materials, drainage and irrigation reviewed
- II Design concepts explored for paving, site furnishing, lighting, play areas, etc.
- III Plant materials discussed with emphasis on environmental conditions, exposures, winds, and seasonal aspects
- IV Maintenance schedule for project follow-up explored

Th 9 AM–5 PM, 1 session Apr 5

Charles Turofsky, RLA

7 AIA/HSW LU's/SD's

PMPD 866 \$295

**Land Use Engineering**

This land use engineering course will follow the development of a site plan design for a commercial or industrial project. Three major areas will be explored: the site selection process, preliminary technical and survey work, and site design. In the site selection process the following factors are considered: the proposed use vs. the zoning of the property, the zoning analysis, environmental and government restrictions to development, available utilities, local support or opposition, and a cost analysis. Topics under preliminary survey and technical work include property and topographic surveys, Phase 1 environmental investigations, field assessments of environmental restrictions, and the development of concept plans. Finally, a step-by-step design procedure will be followed consisting of site layout, grading, drainage, utilities, lighting, and related design considerations.

**Course Outline includes:**

- I The project team
  - Owner, attorney, architect, engineer, planner, realtor, special consultants
- II Site selection
  - Zoning analysis
  - Environmental restrictions
  - Utilities
  - Government restrictions
  - Local support or opposition
- III Preliminary technical work
  - The property survey
  - Topographic survey
  - Phase 1 environmental assessment
  - Environmental surveys and delineations
  - Concept plans
- IV Technical design
  - Existing conditions/demolition
  - Site layout
  - Grading
  - Stormwater and drainage
  - Utilities
  - Lighting
  - Structural engineering

- Construction details
- Soils conservation

Sa 9 AM–5 PM, 1 session Summer 2012

Dave Egarian

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 823 \$295

**LEED® for Green Associate PLUS**

This two-day course prepares beginning green building professionals to pass the Green Building Certification Institute's (GBCI) LEED® for Green Associate exam. It presents the core concepts of sustainable design and all nine LEED® Rating Systems®. Passing this first exam prepares an attendee for the LEED AP+ status referred to as Tier Two. The program will also provide information on state or federal utility programs, tax credits, and incentives. Energy Star Performance for Homes and Commercial Buildings is cursorily reviewed to understand its contribution towards LEED® certification of a building.

**Course Outline includes:**

- I LEED® for Green Associate PLUS is the most complete & comprehensive course available today
- II 500 Question on-line exam for an interactive question, answer, and rationale
- III Green building principles
- IV LEED® implementation process
- V LEED® credit structure and point system
- VI Credit intent and requirements
- VII Credit synergies
- VIII Strategies and technologies
- IX Certificate of hours and attendance
- X Eligibility to sit for the LEED® for Green Associates Exam
- XI Eligibility to sit for the Green Advantage Exam

Plus the following is included: financing; mortgages; tax incentives; government policies; overview of home and energy rating systems; overview of LEED®, green points, NAHB and Energy Star; and marketing strategies.

**Sec 1:** F–Sa 9 AM–5 PM, 2 sessions Feb 17–18

**Sec 2:** Tu–W 9 AM–5 PM, 2 sessions Apr 10–11

Irene Santoro, LEED® AP (all sections)

14 AIA/HSW LU's/SD's, 14 PDH's

PMPD 671 \$679 (textbook included)

**LEED® (BD+C) Construction V3, Core and Shell and K-12 Schools**

This two-day course prepares green building professionals to pass the Green Building Certification Institute's LEED Accredited Professional with Specialty (LEED AP+) exam and prepares them for the next step. This will also give you the ability to be hired or bid on a LEED® Project. It provides the technical aspects of all material in LEED Green Associate Plus course and an in-depth look at the applicable international codes and standards. Technical requirements of Energy Star Performance and major ASHRAE standards are reviewed in depth as they are

# Course Descriptions

critical in the successful LEED® certification process of a building. Includes case studies and practice exam questions.

## Course Outline includes:

- I New construction
- II Core and shell
- III Schools (K-12)
  - Intents
  - Requirements
  - National standards and local codes
  - Strategies
  - Product resources
  - Technology

**Please note:** Includes textbook, 500 questions, case studies, and 200 FREE online practice exam questions.

**Sec 1:** Tu–W 9 AM–5 PM, 2 sessions Mar 6–7

**Sec 2:** F–Sa 9 AM–5 PM, 2 sessions May 4–5

Irene Santoro, LEED® AP (all sections)

14 AIA/HSW LU's/SD's, 14 PDH's

PMPD 678 \$679 (textbook included)

## Mixed-use Development—Beyond the City Limits

The pattern of development that has dominated suburban growth in the post-war era has created a mismatch between what has been developed and our contemporary lifestyles. Our households have changed dramatically; the workplace and work force transformed; our leisure time highly programmed; and with gas prices continuing to rise, people have rediscovered old modes of transit. Over the past decade, higher density mixed-use sustainable developments continue to pop up across the country and aim to introduce urbanity as a new commodity in the landscape of quintessential suburban development and “Big Box” centers. Explore these new developments and the opportunities that are present across our region.

## Course Outline includes:

- I Patterns of development
- II Horizontal vs. vertical mixed-use development
- III Principles for development
- IV Elements of development (authenticity, density, mobility, and sustainability)
- V Transit oriented development
- VI Blending retail, residential, office, and public spaces
- VII Case studies

W 9 AM–5 PM

1 session Feb 29

David Robbins AICP, RLA, LEED®

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 716 \$295

## New Accessibility Requirements for Residential Occupancies

The United Spinal Association works with residential developers, designers, and owners to ensure that their projects comply with applicable state and federal accessibility requirements. The organization's Accessibility

Services staff contribute to the development of city, state, and national accessibility requirements including ANSI A117.1, the accessibility standard referenced by the Building Codes of New York City, New York State, Pennsylvania, and New Jersey as well as by the majority of building codes across the country; it is a safe harbor for compliance with the Fair Housing Accessibility Guidelines. The focus of this course is the accessibility requirements of the New York City Construction Code and the Fair Housing Amendments Act's Accessibility Guidelines and their impact on residential occupancies.

## Course Outline includes:

- I Review of new requirements impacting access to multi-family residential buildings, effective and phase-in dates, and how NYC's access requirements differ from federal guidelines
- II In-depth review of the Federal Fair Housing Amendments Act Design and Construction Requirements
- III Additional requirements impacting federally funded recipients (UFAS)
- IV Definitions and differences between accessible, adaptable, Type A and Type B dwelling units
- V Differences between city and federal accessibility requirements and how they each apply to site design, exterior routes, building entrances, and public and common use areas
- VI Options for bathroom and kitchen design
- VII Impact of these requirements on transient and institutional occupancies
- VIII Participants are encouraged to bring design sketches and questions to discuss with the presenter and share with the class during the discussion of each topic
- IX Handouts include applicable scoping and reference standard materials to support class topics

F 9 AM–5 PM, 1 session Apr 13

Accessibility Services Staff, United Spinal Association

7 AIA/HSW LU's, 7 PDH's

PMPD 965 \$295

## New Technologies—Smart Grid and Smart Buildings

This seminar will give architects, engineers, interior designers, and facility and construction managers an overview of new technologies including the smart grid and components, smart buildings and the relationship to the smart grid, and the design and management of new technologies such as solar PV and thermal, green roofs, combined heat and power systems, geothermal heating and cooling, and district heating and cooling.

## Course Outline includes:

- I Schematic design of simple smart grids and smart buildings that will enable utilities and customers to communicate and manage power production and power demand in a constrained energy world
- II Schematic design of solar PV and thermal, green roofs, combined heat and power systems, geothermal heating and cooling and

district heating and cooling

- III Energy analysis tools to predict systems energy use and green house gas outputs and financial tools to predict systems costs and paybacks
- IV Financing mechanism such as federal and state rebates, 3rd part financing and energy savings which will provide funds for the projects

Su 9 AM–5 PM, 1 session Feb 5  
Tony Gelber, LEED® AP  
7 AIA/HSW LU's/SD's, 7 PDH's  
PMPD 605 \$295

### New York City Commercial Energy Code

NEW

This one-day seminar emphasizes the prescriptive compliance path of the NYC energy code. The presentation includes a review and analysis of the mechanical, envelope, and lighting/power requirements for commercial buildings. The course is based on selections of the code highlighted; explanations of the applicability of the section; and corresponding images of real-life building situations of both compliant and non-compliant constructions, as appropriate. In order to enable greater compliance with the energy code, we will encourage a discussion around interpretations and applications of the code by addressing the building science and intent behind the code's prescriptions. The presentation includes plenty of images, clearly prioritizing the content being conveyed. Within each section of the code, there are numerous seemingly small issues (often only one sentence) that have a large impact. We will identify and discuss these points to ensure that you understand the full application of the code. The last section will be devoted to enforcement of the code to ensure compliance. Since the code is primarily a prescriptive code and the majority of projects will be able to readily comply, emphasis will be placed on the standard compliance path using ComCheck. The performance-based Energy Cost Budget Method of ASHRAE 90.1 will be introduced as an alternate method of compliance.

#### Course Outline includes:

- II Introduction to building energy consumption, the energy codes, ASHRAE 90.1 and their applications
- II Commercial Energy code for mechanical systems
- III Commercial Energy code for Envelope
- IV Commercial Energy code for lighting/powersystems
- V NYC enforcement of the code to ensure compliance
- VI Prescriptive compliance path using ComCheck
- VII Introduction to performance-based Energy Cost Budget Method of ASHRAE 90.1 as an alternate method of compliance

Tu 9 AM–5 PM  
1 session Feb 14  
Juan C. Toro, PE  
7 AIA/HSW LU's/SD's, 7 PDH's  
PMPD 791 \$295

### New York Construction Law

The law influences all aspects of the construction process. Its reach extends far and wide; and its impact can be felt from the very beginning of a project, through completion, closeout, and beyond. For over a decade this course has assisted those involved in construction in learning and understanding the rules. Attendees are sensitized to the problems, issues and concerns which can arise during major phases of a project and leave with a better understanding of how the law affects them.

#### Course Outline includes:

- I Bidding
- II Contractor claims and owner defenses and related contract clauses
- III Subcontractor claims
- IV Owner's rights and affirmative claims
- V Bonds
- VI New York Lien Law: public and private improvement mechanics lien

#### Registration deadline: Apr 6

F–Sa 9 AM–4 PM, 2 sessions Apr 13–14  
Robert J. Miletsky, Esq.  
12 AIA/HSW LU's, 12 PDH's  
PMPD 802 \$575

### New York State Building Codes, Rules, and Regulations

This course consists of a series of lectures focusing on recent changes in the industry that affect the practice of Architecture and Engineering in The State of New York. Commencing with the New York State adaptation of the International Building Code, i.e., the Building Code of New York State, the Energy Conservation Construction Code, the Fire Code, the Fuel Gas Code, the Mechanical Code, the Plumbing Code, the Property Maintenance Code, the Residential Code and their interpretation and application locally. In a seminar environment, students gain an understanding for the existing New York City Building Code, while recognizing the need for change.

#### Course Outline includes:

- I New York State building code
- II Federal OSHA labor law safety
- III Health regulations for construction
- IV New York City building code
- V Building codes effect on construction costs
  - Dictating type of materials used by developers
  - Detailing kind of buildings or structures which can be built
  - Establishing review process which must be followed to ensure code compliance
- VI Special emphasis is placed on the role of the Buildings Department and their authority

Tu 9 AM–5 PM, 1 session Mar 20  
Edward D. Re, Jr., AIA  
7 AIA/HSW LU's, 7 PDH's  
PMPD 816 \$295

# Course Descriptions

## Noise Abatement and Control: Multi-family Housing

This seminar is intended for planners, architects, engineers, facilities managers, and construction personnel to raise their sensitivities, understanding, and technical knowledge of noise abatement and control, related standards and regulations for multi-family residential housing facilities development, planning, design and maintenance. Prolonged exposure to noise pollution has a negative impact on human comfort, health, safety and welfare, and contributes to irritability, reduced workplace productivity, sleeplessness, anxiety and illness. With increased awareness of these adversities, considerations, and actions are emerging for mitigated actions in various communities, municipalities, and metropolises. Standards and regulations for noise control and noise exposure in housing vary and overlap because they originate from different cognizant organizations that establish the standards, metrics, and related controls for different noise-sources. Major noise sources in many problem facilities include poor considerations for noise control within the facility during the planning, design, and construction development stages, and include noise pollution encroachment from nearby developments such as roadways, airports, and railroads and/or commercial and industrial facilities. Significant regulatory framework for noise control in residential dwellings and multi-family housing is enforced by Housing and Urban Development (HUD), though it is not a cognizant organization. The Federal Government interests in FHA, Fannie Mae, and Freddie Mac is a linkage with which HUD exercises regulatory oversight in the mortgage finance industry. With this linkage HUD has significant leverage in its enforcement responsibilities in technical support, insurance amount determination, and financial assistance for project facilities construction. HUD's oversight reach is essentially based on the Noise Control Act (1972), the National Housing Act (1949), the National Environmental Policy Act (1969) with subsequent amendments and applicable statutes including 24 CFR Part 51.

### Course Outline includes:

- I General information, course outline and objectives
- II Properties and characteristics of sound wave and noise
- III Acoustical considerations and noise pollution Evaluation for residential and housing developments
- IV Overview regulatory considerations and standards
- V Acoustical and noise control systems for residential and housing developments

Su 9 AM–5 PM, 1 session Feb 19  
Alfred Yalaju, RA  
7 AIA/HSW LU's/SD's, 7 PDH's  
PMPD 676 \$295

## Offsite Fabrication for Housing

No one really knows when humans started to pre-fabricate buildings. Certainly nomadic herdsmen have engaged in a form of prefabrication for thousands of years, in that their tents have been made in a single place while being assembled repeatedly at different locations. Prefab started to enter the architect's and engineer's consciousness right along with the dawn of the Industrial Revolution and reached an early highpoint in Sir Joseph Paxton's design for the Crystal Palace in London's Hyde Park. This 1,850-ft. long iron, glass, and wood structure with over 900,000 sq. ft. of glazing, was made in a factory and then erected on site in merely 17 weeks. But offsite fabrication in architecture in the 20th-century had mostly a troublesome past, punctuated by some spectacular failures both financial and structural. And while buildings remain for the most part site-built adventures, where ungainly raw supplies are cut down to size in all kinds of weather, other industries such as airplane and auto manufacturing have leaped forward with modern procurement, contractual and fabrication methods, and dry and predictable indoor conditions. Nevertheless, things look very bright for the future of offsite fabrication for housing and similar applications. Prefab dovetails nicely with the recent surge of concern for securing a green and sustainable future. This course will examine the various aspects of offsite fabrication with respect to how architects and developers can get involved.

### Course Outline includes:

#### PART 1

- I Images of offsite fabrication around the world
- II Definition of terms and a short history of offsite fabrication
- III What is the nature of offsite fabrication in the UK vs. the USA?
- IV Why do prefabrication and why not?
- V What are the components of a prefabricated building?
- VI What is the process of prefabricated construction?
- VII What makes offsite fabrication really sing?
- VIII Is offsite fabrication a green way forward?
- IX Technical constraints particular to offsite
- X The nature of innovation
- XI Case studies

#### PART 2

- I Hands-On workshop where you will be asked to respond to a particular request from the public sector to solve a problem using offsite fabrication techniques.

**Registration deadline:** Apr 12  
Sa 9 AM–5 PM, 1 session Apr 21  
Michael Hardiman, AIA  
7 AIA/HSW LU's/SD's, 7 PDH's  
PMPD 966 \$295

## Performance Modeling for Carbon Neutral Buildings

This will show architects, engineers, and interior and landscape designers how to design and renovate carbon neutral buildings using building performance modeling techniques. Carbon neutral buildings require low or net zero energy usage and designs need to be tailored to maximize energy gains from solar, wind, and geothermal power and to minimize losses from building components such as wall, windows, and appliances. This course will show architects and engineers the software tools available to help in designing these low carbon buildings.

### Course Outline includes:

- I **Review of the following:**
  - Causes and effects of climate change
  - Procedures for measuring and mitigating greenhouse gas emissions
  - Green design standards
  - Energy and greenhouse gas calculations in reference to designing for carbon neutral buildings
  - LEED-certified, silver, gold, platinum
  - New construction, renovations, existing buildings
- II **Building performance modeling basics**
  - Energy load estimating—lighting, heating, cooling, ventilation, plug
  - Solar, wind, geothermal estimating
- III **Software tools available to measure and predict:**
  - Solar gain
  - PV production
  - Green roof performance—solar and water
  - Geothermal performance—energy
  - Whole building energy use
- IV **Performance modeling case studies of leading carbon neutral buildings**
  - South London, NYC
- V **Performance Modeling Design charette for a carbon neutral building (in class) new construction**
  - Modeling of base design for building energy loads
  - Modeling of base design for solar, wind, geothermal
- VI **Performance modeling design charette for a carbon neutral building (in class) major renovations**
  - Modeling of base design for building energy loads
  - Modeling of base design for solar, wind, geothermal

Su 9 AM–5 PM, 1 session Mar 11

Tony Gelber, LEED® AP

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 602 \$295

## Performance Rating of New Buildings: The Process

Global warming is resulting from an increase in greenhouse gases in the atmosphere. It is caused by CO<sub>2</sub> and other heat-trapping emissions. A new report by the Union of Concerned Scientists (UCS) illustrates the effects on health, natural resources, and the economy caused by average temperatures. If the current trend continues, New York City will have 25 days above 100°F, by the year 2070. Nationally,

residential and commercial buildings account for 38% of greenhouse gas emissions. In New York City, building-related emissions are almost double the national rate. Evaluating the environmental impact, saving energy, and indoor air quality of new buildings are the focus of this course.

There are a variety of standards for benchmarking how environmentally responsible (green) a building's design is, how the energy saving may be accomplished, and how the indoor air quality may be improved. Meeting or exceeding benchmark levels rewards the builders and gives homeowners' confidence that their home is durable, healthy, and environmentally friendly.

### Course Outline includes:

- I **Introduction to the overall concepts of sustainable buildings**
  - Procedures for earning specified prerequisite and credit points for obtaining the certificate, as outlined by Leadership in Energy and Environment Design
- II **Sustainable site, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality and innovation in design**
- III **A majority of required calculations are performed in an EXCEL Workbook**

Tu 9 AM–5 PM, 1 session Summer 2012

Ali Badakhshan, PE

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 982 \$295

## Planning and Design of Urban Transportation Infrastructure Projects

Utilizing real-life case studies, this class will examine the planning and design issues unique to urban transportation projects, specifically involving airports and rail. Making use of presentation materials, hand-outs, and in-class exercises, both new construction and additions to existing facilities will be examined. Drawing upon experiences and lessons learned from recent projects (including the WTC Temporary PATH Station, the WTC Transportation Hub, Newark and JFK AirTrains), this class will highlight numerous issues including the challenges related to working with a signature architecture within the confines of a site-wide master plan, as well as achieving contemporary sustainability and security standards, resulting in an enhancement of the public experience.

### Course Outline includes:

- I **Project identification, programming/criteria, code compliance, accessibility, pedestrian flow**
- II **Provisions for protection of public life safety, including impacts on building design, in order to both minimize threats and provide for safety in the case of an event**
- III **Achieving/surpassing required contemporary Sustainability Design Guidelines (SDGs) and LEED certification eligibility through an integrative building design**
- IV **Conceptual planning, alternatives analysis, development of design, and construction document packaging**

# Course Descriptions

- V Estimating, scheduling, minimization of risk
- VI Contractor procurement, construction, community outreach, funding project

W 9 AM–5 PM, 1 session Mar 28

Thomas L. Grassi, AIA

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 660 \$295

## Preparing Energy Audit Reports

This course will focus on preparing clear and concise energy audit reports for clients. With high-energy costs, it is important that the energy audit report convinces the client to perform the recommended work. Case studies of actual reports prepared by the instructor will be discussed in detail in the class. What to do when savings cannot be accurately projected for certain types of energy conservation measures.

### Topics include:

- I Selecting the appropriate energy conservation measures
- II Estimating energy savings
- III Estimating cost savings
- IV Estimating implementation costs
- V Calculating payback period

M 9 AM–12 PM

1 session Mar 12

Daniel Karpen, PE

3 AIA/HSW LU's/SD's, PDH's

PMPD 659 \$195

## Principles of Sustainable Design— An Introduction to High Performance Buildings

This introductory seven-hour course defines Green Building as an integrative and holistic process. The class introduces all the most popular certification rating systems available in the U.S. today such as: LEED®, The Green Initiative® (Green Globes Systems), NAHB® Green, and Energy Star® and discusses their program intents and strategies along with their case studies. It includes an extensive overview to certify your business or firm through Green Advantage® for residential and commercial high performance buildings. This course provides a solid foundation for you to be personally accredited through the GBCI as a LEED Green Associate, and LEED v3 training courses for the LEED AP status or to certify your business as being green.

### Course Outline includes:

- I The history of sustainability
- II The history of sustainably government policy
- III Overview of home and energy rating systems
- IV Overview of Rating Systems®
  - LEED®
  - Green Initiatives®
  - Green Points®
  - NAHB Green®
  - Energy Star®
- V Marketing strategies for products
- VI Credits, intents, and requirements
- VII Credit categories or the principles of sustainable design:

- Sustainable sites
- Water
- Energy and atmosphere
- Material and resources
- Indoor environmental quality

VIII Requirements for high performance buildings

IX Strategies and technology

X Renewable energy–green power–REC's

XI An overview of Energy Star, HERS, and RESNET

XII National standards and local codes

XIII Government and non-government agencies

XIV Product resources

Sec 1: Sa 9 AM–5 PM, 1 session Mar 10

Sec 2: Tu 9 AM–5 PM, 1 session Apr 3

Irene Santoro, LEED® AP (all sections)

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 673 \$345 (textbook included)

## Renewable/Green Energy

Globally, wind power already generates electricity equal to that used by 19 million European households. In 2003, an estimated \$20.3 billion, about 16% of total global investment in power generation equipment, was invested in “new renewables,” except large-scale hydropower and traditional biomass.

Wind and solar power are the world's fastest-growing energy sources, with capacity expanding at double-digits every year over the past decade. The effects of this rapid growth include impressive technology, dramatic cost reduction, and an increase in political support for renewable energy around the world.

This course describes the history and technological development of new renewable resources, including the solar (heat and photovoltaic), wind, geothermal, biomass/bio-diesel, and hydrogen.

### Course Outline includes:

- I Introduction to new renewable energies
- II Terms and definitions used in the industry
- III History of major resources and development of technology throughout the world
- IV How systems work and how research and developments opened the door to industry's future
- V Present status of different renewable energy systems
- VI How extensive R&D and governments policy towards the establishment of setting the standards, shall assist the industries, lower world pollution and decrease independency from fossil fuels

M 9 AM–5 PM, 1 session Summer 2012

Ali Badakhshan, PE

7 AIA/HSW LU's, 7PDH's

PMPD 915 \$295

## Residential Air Conditioning and Heat Pumps and How to Evaluate them Holistically

Architects and engineers will look at all areas of air conditioning and heat pumps as they pertain to residential

housing in one (1) to four (4) family units. This is just one of 12 legally required inspection components for a Home Inspection that protects the safety of a home and can bring it into code compliance. You will focus on what makes air conditioning and heat pumps function correctly and what are common construction, renovation errors, or omissions. This will lead to an accurate understanding of how to conduct an air conditioning and heat pumps system component inspection of a home inspection, under the appropriate professional licenses. Benefiting the public, is the preservation/reuse of existing facilities, rightsizing equipment, space zoning, smart controls, geo-exchange, mass absorption, natural materials, materials selection and embodied energy, alternate energy, life cycle assessment, systems tune-up, thermal bridging, radiant heating and cooling, natural ventilation, cavity walls for insulating airspace, deconstruction and salvaged materials, and staff training.

**Course Outline includes:**

- I Air conditioning and heat pump inspection
- II Introduction to air conditioners, water cooled and other types
- III Cooling capacity of air conditioning
- IV The compressor, corrosion of the compressor, and compressor coils
- V Evaporator coils
- VI Condensate system and refrigerant lines
- VII Condenser fans and evaporator fan
- VIII Duct system and thermostats
- IX Air cooled and water cooled inspection procedure
- X Theory of heat, coefficient of performance and introduction to heat pumps
- XI Heat pumps similar to air conditioners
- XII Earth to air heat pump systems

Sec 1: M 9 AM–5 PM, 1 session Jan 30

Sec 2: M 9 AM–5 PM, 1 session Mar 5

Sec 3: M 9 AM–5 PM, 1 session Apr 16

Dale Paegelow, AIA, RA, NCARB (all sections)

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 680 \$345 (textbooks included)

**Residential Chimney and Wood Heating and How to Evaluate them Holistically**

Architects and engineers will look at all areas of chimney and wood heating as they pertain to residential housing in one (1) to four (4) family units. This is just one of 12 legally required inspection components for a Home Inspection that protects the safety of a home and can bring it into code compliance. You will focus on what makes chimney and wood heating function correctly and what are common construction, renovation errors or omissions. This will lead to an accurate understanding of how to conduct a chimney and wood heating system component inspection of a Home Inspection, under the appropriate professional licenses. Benefiting the public, is the preservation/reuse of existing facilities, rightsizing equipment, smart controls, natural materials, materials selection and embodied energy, alternate energy, life

cycle assessment, systems tune-up, deconstruction, energy modeling, energy source ramifications, energy saving appliances and equipment, salvaged materials, high-efficiency equipment and staff training.

**Course Outline includes:**

- I Chimney inspection, flue liners, chimney caps, chimney height
- II Fire safety, draft, chimney damage and vents, creosote
- III Wood heat, wood stoves, wood stove conditions, and wood stove owner's manual
- IV Oil tank clearances, vent connectors
- V Fireplaces, masonry fireplaces, masonry and steel fireplaces
- VI Factory built/zero clearance, factory built components
- VII Footings and foundations, fireplace hearths, fireboxes

Sec 1: W 9 AM–5 PM, 1 session Feb 1

Sec 2: W 9 AM–5 PM, 1 session Mar 7

Sec 3: W 9 AM–5 PM, 1 session Apr 18

Dale Paegelow, AIA, RA, NCARB (all sections)

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 681 \$345 (textbook included)

**Residential Electrical Systems and How to Evaluate them Holistically**

Architects and engineers will look at all areas of electrical systems as they pertain to residential housing in one (1) to four (4) family units. This is just one of 12 legally required inspection components for a Home Inspection that protects the safety of a home and can bring it into code compliance. You will focus on what makes electrical systems function correctly and what are common construction, renovation errors or omissions. This will lead to an accurate understanding of how to conduct an electrical system component inspection of a home inspection, under the appropriate professional licenses. Benefiting the public, is the preservation/reuse of existing facilities including rightsizing equipment, building orientation, day-lighting, natural ventilation, smart controls, efficient artificial lighting, and energy saving appliances.

**Course Outline includes:**

- I Service drop and service laterals
- II Service box and service size
- III Grounding and bonding
- IV Distribution panels
- V 240 volt and multi-wire circuits
- VI Introduction to branch circuit wiring
- VII Knob and tube wiring and Aluminum wiring
- VIII Lights
- IX Outlets and Ground fault circuit interrupters
- X Smoke detectors
- XI Inspection procedures and tools

Sec 1: F 9 AM–5 PM, 1 session Feb 3

Sec 2: F 9 AM–5 PM, 1 session Mar 9

Sec 3: F 9 AM–5 PM, 1 session Apr 20

Dale Paegelow, AIA, RA, NCARB (all sections)

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 682 \$345 (textbook included)

# Course Descriptions

## **Residential Exteriors and How to Evaluate Them Holistically**

Architects and engineers will look at all areas of exterior systems as they pertain to residential housing in one (1) to four (4) family units. This is just one of 12 legally required inspection components for a home inspection that protects the safety of a home and can bring it into code compliance. You will focus on what makes exteriors function correctly and what are common construction, renovation errors or omissions. This will lead to an accurate understanding of how to conduct an exterior system component inspection of a home inspection, under the appropriate professional licenses. Benefiting the public, is the preservation/reuse of existing facilities including rightsizing equipment, building orientation, windows and openings, natural ventilation, smart controls and efficient artificial lighting.

### **Course Outline includes:**

- I Architectural styles
- II Brick, stone, stucco and concrete problems
- III Wood, hardwood, and OSB siding problems
- IV Metal and vinyl siding problems
- V Cement based siding problems
- VI Clay and slate shingles
- VII Asphalt shingles
- VIII Wood/soil contact and exposed foundations
- IX Soffits and fascia
- X Doors, windows-trim
- XI Flashing and caulking
- XII Gutters and downspouts
- XIII Flat roof drainage
- XIV Retaining wall problems
- XV Garage and carports floor and doors
- XVI Basement walk-outs

Sec 1: M 9 AM–5 PM, 1 session Feb 6

Sec 2: M 9 AM–5 PM, 1 session Mar 12

Dale Paegelow, AIA, RA, NCARB (*all sections*)

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 683 \$345 (*textbook included*)

## **Residential Gas and Oil Furnaces and How to Evaluate them Holistically**

Architects and engineers will look at all areas of gas and oil furnaces as they pertain to residential housing in one (1) to four (4) family units. This is just one of 12 legally required inspection components for a home inspection that protects the safety of a home and can bring it into code compliance. You will focus on what makes gas and oil furnaces function correctly and what are common construction, renovation errors or omissions. This will lead to an accurate understanding of how to conduct a gas and oil furnaces system component inspection of a home inspection, under the appropriate professional licenses. Benefiting the public, is the preservation/reuse of existing facilities including rightsizing equipment, smart controls and energy saving appliances and equipment.

### **Course Outline includes:**

- I Introduction to gas furnaces
- II Gas piping, combustion air, gas burners,

Heat shields, heat exchangers, cabinets, fan controls, thermostats

III Dating furnaces

IV Vent connectors, blowers, air filters, ducts and registers, leaky ducts

V Conventional furnaces, mid-efficiency furnaces, high-efficiency furnaces, gravity furnaces

VI Oil heating systems, oil tanks, oil burners

VII Standards of practice

Sec 1: W 9 AM–5 PM, 1 session Feb 8

Sec 2: W 9 AM–5 PM, 1 session Mar 14

Sec 3: M 9 AM–5 PM, 1 session Apr 23

Dale Paegelow, AIA, RA, NCARB (*all sections*)

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 684 \$345 (*textbook included*)

## **Residential House Inspections**

A proper house inspection is a must before purchasing a property. A thorough inspection can detect potential problems with a structure that might be overlooked by a person not familiar with construction. This class will teach how to perform a residential house inspection. It is important to ask the right questions, and to be curious about what you are seeing.

### **Course Outline includes:**

I Dating the structure: How old is it?

- Were there any additions or alterations to the building since it was built?

II Structural inspection

- Foundations and basement floors
- Beams, rafters, and joists

III HVAC

- Steam boilers
- Hot water boilers
- Forced hot air systems
- Air conditioning

IV Electrical

- Types of conduit
- Panel boxes

V Plumbing

- Types of water pipes

VI Roofing

- How old is the roof?

VII Case studies

VIII When is a house a knock down?

M 9 AM–12 PM, 1 session Apr 16

Daniel Karpen, PE

3 AIA/ HSW LU's/SD's, 3 PDH's

PMPD 663 \$195

## **Residential Insulation and How to Evaluate it Holistically**

Architects and engineers will look at all areas of Insulation as they pertain to residential housing in one (1) to four (4) family units. This is just one of 12 legally required inspection components for a home inspection that protects the safety of a home and can bring it into code compliance. You will focus on what makes Insulation function correctly and what are common construc-

tion, renovation errors or omissions. This will lead to an accurate understanding of how to conduct an insulation system component inspection of a home inspection, under the appropriate professional licenses. Benefiting the public, is the preservation/reuse of existing facilities, rightsizing equipment, smart controls, geo-exchange, mass absorption, materials selection and embodied energy, alternate energy, life cycle assessment, systems tune-up, thermal bridging, radiant heating and cooling, natural ventilation, cavity walls for insulating.

**Course Outline includes:**

- I Introduction to insulation and the basics, such as, R Values, Moisture, and the Building envelope
- II Insulation inspection including Urea Formaldehyde foam insulation, Radiant barriers, Air/vapor barriers
- III Roof ventilation, Living space ventilation and Heat recovery ventilators
- IV Insulation inspection, Attic ventilation-inspection, Flat roof and cathedral inspection, Above-grade inspection, Basement and crawl space inspection
- V Exhaust fan, Heat recovery and Ventilator inspection
- VII Insulation and ventilation procedures

Sec 1: F 9 AM–5 PM, 1 session Feb 10

Sec 2: F 9 AM–5 PM, 1 session Mar 16

Sec 3: W 9 AM–5 PM, 1 session Apr 25

Dale Paegelow, AIA, RA, NCARB (all sections)  
7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 685 \$345 (textbook included)

**Residential Interiors and How to Evaluate them Holistically**

Architects and engineers will look at all areas of interiors systems as they pertain to residential housing in one (1) to four (4) family units. This is just one of 12 legally required inspection components for a home inspection that protects the safety of a home and can bring it into code compliance. You will focus on what makes interiors systems function correctly and what are common construction, renovation errors or omissions. This will lead to an accurate understanding of how to conduct an interiors systems component inspection of a home inspection, under the appropriate professional licenses. Benefiting the public, is the building form, preservation/reuse of existing facilities, rightsizing equipment, space zoning, open, active daylight spaces, smart controls, windows and openings, natural materials, materials selection and embodied energy, alternate energy, life cycle assessment, systems tune-up, natural ventilation, deconstruction and salvaged materials, efficient artificial lighting, day-lighting, natural ventilation and staff training.

**Course Outline includes:**

- I Floors, Walls, Ceilings, Stairs, Doors
- II Trim and cabinets, Windows and solariums
- III Surface water control
- IV Foundation flaws, Interior drainage tile, High water table

**V Implications of wet basements, Wet basement clues, cures and inspection**

Sec 1: M 9 AM–5 PM, 1 session Feb 13

Sec 2: M 9 AM–5 PM, 1 session Mar 19

Sec 3: F 9 AM–5 PM, 1 session Apr 27

Dale Paegelow, AIA, RA, NCARB (all sections)  
7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 686 \$345 (textbook included)

**Residential Kitchen Design From Soup to Nuts**

This course will explore the fundamentals of residential kitchen design from layout to lighting, design to documentation, and tricks to trends. Participants will learn to incorporate a full scope of kitchen design and execution into an architectural design: whether an addition, renovation, or new construction project; whether urban or suburban; whether high-end or tightly budgeted. Technical information will be provided in detail so the professional can develop the necessary skill set for soup to nuts residential kitchen design such as adjacencies, proximities, critical dimensions, clearances, and budgeting. Other topics include ways to incorporate sustainability and "green" principles into the design and decision-making process as well as material selection relative to cost, maintenance, safety, and health and lifestyle issues.

Multiple case studies will be used to exemplify the above concepts throughout the course as well as hands on sketch problems at the conclusion of class. The ability to provide such full-scope services will be the "icing on the cake" you can offer to your customers.

**Course Outline Includes:**

- I History and Basics of Kitchen Design
- II Programming the Residential Kitchen
- III Standard Configurations and Layout Options
- IV Countertops, Backsplash, Flooring and other Finishes
- V Cabinetry and Hardware
- VI Architectural Issues
- VII "Greening" the Kitchen
- VIII Construction Documents and Project Execution
- IX Trends in Kitchen Design Today
- X Sketch Problem(s)

F 9 AM–5 PM, 1 session Apr 12

Abby Schwartz

7 AIA/HSW LU's/SD's

PMPD 714 \$295

**Residential Landscape Architecture**

This seminar explores the design and construction of walkways, driveways, lighting, fencing, walls, patios, decks, swimming pools, tennis courts, sports courts, porticos, trellises, fire pits, outdoor kitchens, and other site features, with an eye toward climactic conditions and plant zones in the New York metropolitan area. Privacy screens, perennial gardens, foundation plantings, seashore planting, deer proofing, and planting on slopes will also be discussed.

# Course Descriptions

## Course Outline includes:

- I Client interviews, site analysis, presentations
- II Zoning and planning considerations
- III Filings, planning boards, architectural review boards, building departments
- IV Supervision, inspections, selection of contractors
- V Punch lists, certificates of completion, sketch problems

F 9 AM–5 PM, 1 session Apr 27

Charles Turofsky, RLA

7 AIA/HSW LU's

PMPD 946 \$295

## Residential Plumbing and How to Evaluate it Holistically

Architects and engineers will look at all areas of plumbing as they pertain to residential housing in one (1) to four (4) family units. This is just one of 12 legally required inspection components for a home inspection that protects the safety of a home and can bring it into code compliance. You will focus on what makes plumbing function correctly and what are common construction, renovation errors or omissions. This will lead to an accurate understanding of how to conduct a plumbing system component inspection of a home inspection, under the appropriate professional licenses. Benefiting the public, is the preservation/reuse of existing facilities including preservation/reuse of existing facilities, rightsizing equipment, smart controls, geo-exchange, water conservation, materials selection and embodied energy, alternate energy, life cycle assessment, systems tune-up, radiant heating and cooling, and energy saving appliances and equipment.

### Course Outline includes:

- I Overview—private and public water source
- II Public water sources—shut off valves and supply piping distribution
- III Water heaters—components and features plus other water heaters
- IV Piping materials and their characteristics
- V Drain-waste and vent plumbing conditions and sewage ejector pumps
- VI Fixtures and faucets, Whirlpool baths
- VII Septic systems

Sec 1: W 9 AM–5 PM, 1 session Feb 15

Sec 2: W 9 AM–5 PM, 1 session Mar 21

Sec 3: M 9 AM–5 PM, 1 session Apr 30

Dale Paegelow, AIA, RA, NCARB (*all sections*)

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 687 \$345 (*textbook included*)

## Residential Roofing and How to Evaluate it Holistically

Architects and engineers will look at all areas of roofing as they pertain to residential housing in one (1) to four (4) family units. This is just one of 12 legally required inspection components for a home inspection that protects the safety of a home and can bring it into

code compliance. You will focus on what makes roofing function correctly and what are common construction, renovation errors or omissions. This will lead to an accurate understanding of how to conduct a roofing system component inspection of a home inspection, under the appropriate professional licenses. Benefiting the public, is the preservation/reuse of existing facilities, rightsizing equipment, space zoning, smart controls, windows and openings, natural materials, materials selection and embodied energy, alternate energy, life cycle assessment, systems tune-up, thermal bridging, radiant heating and cooling, natural ventilation, building orientation, deconstruction and salvaged materials, sun shading, and passive solar collection opportunities.

### Course Outline includes:

- I Roofing inspection
- II Asphalt shingle conditions
- III Damaged roofing and Ice dams
- IV Wood shingles and shakes
- V Slate roofing, clay tile roofing, concrete tile roofing, fiber cement roofing, metal tile roofing, and roll roofing
- VI Valley flashing, chimney flashing, hip and ridge flashing, stack and vent flashing, roof/wall flashing, skylight flashing, dormer flashing, drip edge flashing and roof wall flashing

Sec 1: F 9 AM–5 PM, 1 session Feb 17

Sec 2: F 9 AM–5 PM, 1 session May 23

Sec 3: W 9 AM–5 PM, 1 session May 2

Dale Paegelow, AIA, RA, NCARB (*all sections*)

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 688 \$345 (*textbook included*)

## Residential Steam, Electric, Floor, Wall Heat plus Hot Water Boilers and How to Evaluate them Holistically

Architects and engineers will look at all areas of steam, electric, floor, wall heat plus hot water boilers as they pertain to residential housing in one (1) to four (4) family units. These are two of 12 legally required inspection components for a home inspection that protect the safety of a home and can bring it into code compliance. You will focus on what makes steam, electric, floor, wall heat plus hot water boilers function correctly and what are common construction, renovation errors or omissions. This will lead to an accurate understanding of how to conduct a steam, electric, floor, wall heat plus hot water boiler system component inspection of a home inspection, under the appropriate professional licenses. Benefiting the public, is the preservation/reuse of existing facilities, rightsizing equipment, smart controls, natural materials, materials selection and embodied energy, alternate energy, life cycle assessment, systems tune-up, deconstruction, energy modeling, energy source ramifications, energy saving appliances and equipment, salvaged materials, high-efficiency equipment and staff training.

### Course Outline includes:

- I Steam heat introduction
- II Steam boiler operation and components,

including one pipe system, even heating, Hartford loop and equalizer, main air vents, distribution pipes and radiators, traps, condensate pumps and boiler feed pumps, low water cut-out, auto water feeder, water level gauge, general steam boiler problems, water hammer, two steam boiler components

- III Hot water boilers, controls, distribution piping, air vents, distribution devices, inspection procedures, life cycles, boiler controls, boiler inspection procedures, reporting defects, inspection, problems and implications, inspection tips

Sec 1: M 9 AM–5 PM, 1 session Feb 20

Sec 2: M 9 AM–5 PM, 1 session Mar 26

Sec 3: M 9 AM–5 PM, 1 session May 7

Dale Paegelow, AIA, RA, NCARB (*all sections*)

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 689 \$375 (*two textbooks included*)

### Restaurant Design, in New York City and Beyond

Warren Ashworth has, over the last 30 years, been a principal architect of more than 150 restaurants in New York, Chicago, San Francisco, and Orlando. Along with his business partner, Larry Bogdanow, he designed the renowned Union Square Café and went on to national prominence in the field. This course would look at the design of restaurants from the architect's point of view and would touch on the myriad aspects of this extremely complex and idiosyncratic niche in the world of design.

#### Course Outline includes:

- I The design side
- The design of one-offs versus multiple-units
  - Safety and health in the restaurant environment
- II Operations: How your design can minimize your client's labor costs
- Back of the House versus Front of the House—how to balance the two
- II The business side:
- Keeping the customer satisfied. Getting to know your client
  - The business benefits and pitfalls of designing restaurants
  - Keeping up with the competition
  - Turning one restaurant commission into many
- III Technical issues
- Demystifying the public assembly filing requirements
  - Working with kitchen consultants
  - Specifying finishes, furnishings, and equipment
  - Acoustics in restaurants
  - Sources

Sa 9 AM–5 PM, 1 session Apr 28

Warren Ashworth

7 AIA/HSW LU's, 7 PDH's

PMPD 679 \$295

### Security Design through CPTED

Terrorism, crime, and workplace violence are issues of everyday life for millions of Americans. CPTED (Crime Prevention Through Environmental Design) is a design strategy that can enable architects to use their skills to create safer facilities. Many city and county governments are adopting CPTED ordinances requiring site plan reviews with crime prevention in mind. The proper implementation of CPTED provides a security design that reduces crime and violence. It addresses site selection and balances the use of natural barriers with security technology to increase the perception of personal security.

#### Course Outline includes:

- I Natural surveillance: The placement of physical features, activities and people in such a way to maximize visibility. This includes lighting of public spaces, alignment of walkways, raised entrances and effective placement of windows, doors and lobby areas
- II Natural access control: The physical guidance of people coming and going from a space by judicious placement of entrances, exits, gates, barriers, landscaping and mechanical measures (e.g. doors, gates, locks, etc.)
- III Territorial reinforcement: The use of physical attributes that express ownership, such as fences, pavement treatment, art, signage and landscaping

#### Registration deadline: TBA

Tu 9 AM–12 PM, 1 session TBA

Robert Summers, CPP

3 AIA/HSW LU's, 3 PDH's

PMPD 857 \$195

### Small-Scale Real Estate Development

Economy has you feeling down? Now is the best time to examine your career. This seminar offers design professionals insight into the lucrative yet high risk challenges of real estate development. Discover why this class is valuable in up/down real estate market cycles—discover when is the optimal buying environment. We cover five major components in development: market overview, finance, law, design, and construction. This course is targeted to seasoned professionals who seek to go beyond offering traditional design services and leverage their talent for greater profit.

#### Course Outline includes:

- I Introduction: background, content, objectives
- Objectives
  - Real estate market overview
  - Definitions and terms
- II Real estate development: historical overview
- Real estate development
  - Real estate finance concepts
- III Key concepts: from finance to construction
- The market analysis
  - The development strategy
  - Implementing your development idea
  - Timing
  - Selling
  - Closing

# Course Descriptions

## IV Developing the development strategy

- Getting off the ground
- The developer's role
- Building the team
- Development costs
- Due diligence
- Refining your development idea

## V Development Project #1

## VI Development Project #2

**Please note:** Not accepted by NYS for LU's and PDH credit.

**Registration deadline:** Mar 20

Sa 9 AM–5 PM, 1 session Mar 31

Roy R. Pachecano, AIA

7 AIA/HSW LU's

PMPD 881 \$295

## Solar Photovoltaics

Solar photovoltaics, also known as PV, can be incorporated into the architecture of a building as a method of generating electricity. Systems have come down in price. Utilities are encouraging their installation. This course will look at the technology of these systems, and their economics.

**Course Outline includes:**

- I Theory of solar photovoltaics
- II The current technology
- III Incorporation into building architecture
- IV Economics of installations

M 1–4 PM, 1 session Mar 5

Daniel Karpen, PE

3 AIA/HSW LU's/SD's, 3 PDH's

PMPD 662 \$195

## Specifications Writing, Principles and Practice

This seminar discusses materials and products used in building construction; methods to research, evaluate and select products; and specifications writing. Learn to establish requirements; identify attributes and products; evaluate and select products; research products, and write biddable and binding specifications.

**Course Outline includes:**

- I The Construction Specifications Institute's Manual of Practice
- II Organizational tools used by the industry to catalog
  - Data; construction costs
  - Research; product information
- III Organization of a project manual
- IV Specifications writing techniques, structure, and language

F 9 AM–5 PM, 1 session Mar 2

Steven Danielpour, AIA, CCS, LEED® AP

7 AIA/HSW LU's, 7 PDH's

PMPD 801 \$295

## Subsurface Utility Engineering

Underneath our streets and properties there is a complex web of pipes, cables, and wiring providing us with utility services such as power, water, gas, communications, sewer, etc. When new projects are constructed, excavations often encounter underground utilities that have been omitted or shown incorrectly. Often these errors result in design conflicts, unplanned utility relocations, project redesign, construction delays, change orders, and utility damages. Learn how a Subsurface Utility Engineering program per the recently developed ASCE Standard 38-02 will ensure a constructible design relative to existing active and abandoned underground utilities. Learn the tools and techniques used to create an accurate and comprehensive map of underground utilities, as well as the process of air/vacuum excavation for acquiring the precise location and size of utilities at points of potential conflict.

**Course Outline includes:**

- I Detailed discussion of ASCE 38-02 regarding depiction of utilities
- II Summary of NYS Code Rule 753 to discuss current one-call utility mark-outs
- III Introduction to utility locating instruments and air/vacuum excavation rigs
- IV Contractual considerations such as specifications, pricing, and liability; case studies.

F 9 AM–5 PM, 1 Session, Feb 24

Van A. Singer, PE

7 AIA/HSW LU's, 7 PDH's

PMPD 998 \$295

## Sustainability Approach to Engineering Design

As designers, engineers and architects are in the unique position in society of bringing ideas into form. This course challenges designers to reprioritize, rethink, and approach design opportunities from a sustainability perspective, so that nothing created adds to the environmental or health burden we are currently faced with. Designers must be reeducated, since the tunnel vision approach to design did not foresee the damaging interaction and compound effect of the one product or chemical invented in a vacuum approach. By taking a whole system design approach and integrating every aspect of the lifecycle of the product or system into the design criteria we can minimize environmental and health impacts and move forward to achieving sustainability without compromising the objective of design.

**Course Outline includes:**

- I Overview
  - Concepts such as sustainability, EPA's Design for the environment, and green engineering
  - Background on innovators in the field
- II Whole system design vs. traditional engineering design process
  - Whole systems approach to product and process design where environmental elements are included in the initial design objectives, rather than dealt with as constraints

### III Introduction to sustainable engineering concepts

- Whole Systems approaches, interdisciplinary teams, pollution prevention, waste minimization, life cycle analysis, industrial ecology

### IV Case studies

Sa 9 AM–5 PM, 1 session Apr 21

Terese M. Kinsley, PE, LEED® AP

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 897 \$295

### Sustainable Standards for Buildings and Infrastructure — BREAM, Energy Star, LEED

This seminar will teach architects, engineers, interior designers and facility and construction managers the green standards they need to design and manage sustainable buildings and infrastructure.

#### Course Outline includes:

- I An overview of green standards including basic building codes, BREAM, EPA Energy Star and LEED.
- II A review and class application of BREAM, EPA Energy Star, and LEED projects.
- III An in-depth look at, and in-class project involving a current LEED project.
- IV A review of “green” professional certifications.

Su 9 AM–5 PM, 1 session Mar 25

Tony Gelber, LEED® AP

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 603 \$295

### Sustaining Mixed-Income Housing

The concept of urban sustainability extends beyond energy efficiency and natural resource conservation. The conservation and preservation of human resources must also be considered in design and planning efforts concerned with sustainability. In cities where the high costs of shelter routinely displace residents, best practices must be developed for the economic, political, and physical sustainability of affordable housing. This seminar will explore the role that policy, subsidy, design maintenance, and adaptive uses play in the sustaining of urban housing with a particular focus on subsidized, mixed-income, and multi-family developments.

By analyzing the successes and failures of various developments (Pruitt-Igoe in St. Louis, Melrose Commons in the Bronx, Stuyvesant Town/Peter Cooper Village in Manhattan, Allen Parkway Village in Houston, Acorn Village in Oakland) we will identify overlapping themes and best practices. Additionally, the seminar will deconstruct and reframe the architect's role, suggesting multiple modes of practice from within a holistic and contextual understanding of the subsidized housing development process.

**Topics include:** Preservation and reuse of existing structures; subsidy programs and regulations; policy and economics of subsidized housing; design for subsidized housing; maintenance; community-based planning.

Sa 9 AM–5 PM, 1 session Feb 4

David B. Powell

7 AIA/HSW LU's/SD's, 7 PDH's

PMPD 713 \$295

### The Architect's Role in Development: Preserving the Public's Welfare One-Day Course

The seminar examines how the architect, through implementation of land planning, building design, codes, and life-safety systems facilitates the preservation of the public's welfare in order to minimize adverse affects of uncontrolled development. We discuss how the design of buildings based on a developer's ideal model is, at times, in opposition to the public's interests. Using the history of adverse development in the housing sector as a backdrop, we will examine the parallels between social upheavals and design breakthroughs led by architects whose solutions helped protect the public's welfare. This course is ideal for professionals seeking a broader understanding of the architect's role in development. We examine the architect's fiduciary duties and discuss the tension exerted upon the architect during the planning process as seen through the lens of various stakeholders: the developer, the owner, the investor, the contractor/vendor, and the public.

#### Course Outline includes:

- I Fire and hygiene: legal underpinnings of change
- II The architect at the center of community planning controls
- III Land use, zoning—how architecture responds to both
- IV The architect's fiduciary duties
- V Private/Public controls and planning regulations—how architecture contributes to both
- VI Expansion of environmental laws force architects to think on macro-scale: site, water, air, materials
- VII The “Green” movement

**Registration deadline:** Mar 20

Th 9 AM–5 PM, 1 session Mar 29

Roy Pachecano, AIA

7 AIA/HSW LU's

PMPD 997 \$295

### The Environment, SEQRA and the Engineered Project

The State Environmental Quality Review Act (SEQRA), regulates local and state agency approval of engineered projects. This course will cover Article 8 of the New York State Environmental Conservation Law, detailing the operational aspects of the law, particularly as it affects major civil construction and the construction of residential and non-residential structures. The course will also go into the details of 6 NYCRR 617, the regulatory regulations promulgated by the New York State Department of Environmental Conservation. The class will also cover the interaction of the Freshwater Wetlands Act, the Tidal Wetlands Act, and other major environmental laws as they interact with SEQRA.

# Course Descriptions

## Course Outline includes:

- I Article 8 text
- II 6 NYCRR 617
- III Selection and role of lead agency
- IV Positive and negative declarations
- V The environmental assessment form
- VI The environmental impact statement
- VII Major case law decisions

M 9 AM–4 PM, 1 session Apr 2  
Daniel Karpen, PE  
6 AIA/HSW LU's/SD's, 6 PDH's  
PMPD 995 \$295

## The New York State Energy Conservation Construction Code

The New York State Energy Conservation Construction Code applies to residential and commercial buildings. The code regulates the design and construction of buildings for the effective use of energy. The code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve the effective use of energy.

### Course Outline includes:

- I Existing buildings
- II Historic buildings
- III Additions to buildings
- IV Substantial alternations to buildings
- V Exemptions to code
- VI Definitions
- VII Residential energy efficiency
- VIII Building design for commercial buildings
- IX NYC Department of Buildings EC-1 Energy Cost Budget Worksheet

M 9 AM–4 PM, 1 session Mar 26  
Daniel Karpen, PE  
6 AIA/HSW LU's/SD's  
PMPD 936 \$295

## The Path to Greater Architectural Freedom with Today's Structural Steel

This is a comprehensive program developed by the American Institute of Steel Construction (AISC) exploring the use of structural steel in a safe and cost-effective manner while achieving new freedom in architectural expression.

### Course Outline includes:

- I Qualities and advantages of structural steel
- II Structural engineering concepts
- III Architectural detailing with structural steel
- IV Fire protection and steel coating systems
- V Code of standard practice
  - New code highlighted
  - Architectural exposed structural steel (AESS)

Tu 1–5 PM, 1 session Feb 21  
Eleen Hatfield, PE, AIA, LEED® AP  
4 AIA/HSW LU's, 4 PDH's  
PMPD 835 \$199

## Tidal Wetlands

Tidal wetlands are regulated by Article 25 of the New York State Environmental Conservation Law. This class will cover the law and how it affects tidal wetlands in New York State. The definition of tidal wetlands is defined by statute according to vegetation and those areas which border on or lie beneath tidal waters. The NYS DEC publishes official maps of mapped tidal wetlands. Permits are required for certain activities, including construction, on tidal wetlands and within a 75-foot buffer zone. In New York State, substantial tidal wetlands exist on Long Island. Permits are also subject to SEQRA.

### Course Outline includes:

- I Definition of tidal wetlands
- II Mapping of tidal wetlands
- III Tidal wetland permits
- IV Interaction with SEQRA
- V Town and federal approvals

M 1–4 PM, 1 session Feb 6  
Daniel Karpen, PE  
3 AIA/HSW LU's/SD's, 3 PDH's  
PMPD 996 \$195

## Wind Energy Systems

Modern wind turbines, especially machines in the megawatt class, can generate electricity as a competitive cost compared with power from oil-fired, gas-fired, coal-fired, or nuclear power without the resultant pollution problems. This seminar will look at currently available wind machine and their capabilities. Calculations will be provided to enable engineers to size wind turbines with the electric load.

### Course Outline includes:

- I History of wind energy systems
- II Modern wind machines
- III Case studies of installations
- IV Economics of wind energy systems

M 9 AM–12 PM, 1 session Mar 5  
Daniel Karpen, PE,  
3 AIA/HSW LU's/SD's, 3 PDH's  
PMPD 983 \$195

## Zoning and Its Impacts on Architecture and the Community (Part I)

Analyze the various aspects of Zoning and its impacts on architecture and the community. All architecture projects impact Communities. Some build communities, some harm them. This course studies how zoning laws are created in order to minimize any negative aspect to the public health on architectural developments.

### Course Outline includes:

- I Bulk and Use zoning concepts
- II Technical aspects of zoning that are a part of all new developments and construction
  - Sky Exposure Plane ratios, set back requirements, and yard requirements help maintain ventilation and light/air for communities

- III Analyze the different infrastructure and light/air needs of residential and commercial developments and show how the zoning resolutions deal with these
- IV Discuss Shadow Analysis scenarios and the impact of community review on the construction process
- V Review variances and zoning changes and how the community is able to respond to an architectural project and comment in public hearings and reviews

**Registration deadline:** Mar 20  
 Tu 9 AM–5 PM, 1 session Mar 27  
 Roy Pachecano, AIA  
 7 AIA/HSW LU's  
 PMPD 900 \$295

### Zoning and Its Impacts on Architecture and the Community (Part II)

All architecture forcibly impacts communities on every scale. Some build communities, some harm them. This seminar takes an in-depth look at the various aspects of zoning and its impact on architecture and the community. This course studies how zoning laws are created in order to minimize any negative aspect to the public health and examines scalar impacts on both small and large architectural plans. Areas of discussion include a detailed discussion on bulk, use, sky exposure plane, floor area ratios, and set-back requirements for rear and side yards that impact ventilation and light/air for communities. We will also analyze how the public interest is balanced with private interest to safe-guard infrastructure needs of residential and commercial projects; show how the governmental review process is an important factor in maintaining/preserving public safety; and review the variance and process and how the community is able to respond to an architectural project and comment in public hearings and reviews. This class is intended as a sequel to the introductory course, but can stand alone for attendees already familiar with the basic zoning concepts.

**Course Outline includes:**

- I Brief overview of the history and evolution of zoning
- II Technical aspects of zoning
- III Zoning districts, use groups, bulk rules, floor area ratio, sky exposure plane set backs, yard requirements
- IV Analyze the zoning requirements that preserve light and air
- V Special zoning districts
  - Their relationship to the needs of specific communities
- VI City planning commission authorizations and special permits
- VII How the zoning is amended, map and text changes
- VIII Board of Standards and Appeals variances and special permits
- IX Uniform land use review procedure

- The governmental and community review process
- X City environmental quality review procedure
- XI Identifying and assessing the potential impacts of discretionary zoning actions

**Registration deadline:** Mar 20  
 W 9 AM–5 PM, 1 session Mar 28  
 Roy Pachecano, AIA  
 7 AIA/HSW LU's  
 PMPD 926 \$295

# Announcements

## Customer Testimonials

Please visit our website for updates on customer testimonials on our AIA Professional Development Program and our Certificate Program in Sustainable Building, Infrastructure Design and Management.

"Pratt's Sustainable Building, Infrastructure Design and Management program offers a helpful introduction to Sustainability and LEED certification. Tony Gelber is an excellent speaker and he brings his passion for sustainability and conservation to all his classes."

—Robert Fonfrias, P.E.

"Pratt's CCPS Sustainability Program opened doors I didn't know existed. New Years Day 2010 I began my second year in New York City after 33 years of professional employment in Detroit and New Orleans. Half-way through my Sustainable Building, Infrastructure Design and Management certificate program, Professor Tony Gelber challenged me to design and build a green, sustainable home appropriate for Port-au-Prince two weeks after the January 12, 2010 Haitian earthquake. Thirty days after receiving my certificate, the architectural and engineering plans were completed, the fundraising to implement the project is going on, and I'm on track with the project."

—Marty Rowland, Ph.D., P.E.  
Senior Project Manager for  
Environmental Remediation  
NYC Department of Parks & Recreation

"I really enjoyed Roy Pachecano's and David Reck's class on Green Design vs Historic Preservation. It was very informative and inspiring. With the economy the way that it is, I am trying find ways to reinvent myself as an Architect. This class gave me much to consider. My business partner and I are in contract to purchase a landmark house on Staten Island. The case study of the Nix House gave me a renewed appreciation of the restoration process. I look forward to attending more of your seminars in the future. Thank you."

—Michael A. Biagioli, AIA, Architect

## Home Inspection Courses and Reciprocity

All ten (10) courses taught by Dale Paegelow at Pratt CCPS are AIA approved for continuing education. No matter what state you live in, you will earn credit as a licensed architect or engineer by taking continuing education courses. But what if you also practice Home Inspection under your license as an architect or engineer in the State of New York or the State of Connecticut? All of Dale Paegelow's courses have reciprocity with Connecticut for licensed Home Inspectors, Architects, and Engineers. Thus you can take any Dale Paegelow course and earn credit in two states. For example, you can take *Residential Electrical Systems and How to Evaluate Them Holistically* at Pratt and receive AIA credit in any state (say New York), PLUS you can submit your transcript to Connecticut and earn continuing education credits toward your Home Inspection licensing requirements in Connecticut. You have attended one course and received credit from two states. This is also true for Home Inspection National Organizations such as ASHI or Inter-NACHI. Thus completion of one of Dale Paegelow's courses will earn LU/PDH credit in three places: New York, Connecticut, and ASHI.

# Faculty

**Jeffrey Amato, PE**, Assoc. Consultant, Schirmer Engineering NY Regional Office. As a licensed Fire Protection Engr in the State of NY, Amato has extensive experience working on a number of different building types throughout the US and abroad. He has particular expertise in the application of the International Building Code, National Fire Protection Association Standards, as well as other federal, state and local adaptations of these codes and standards, including both the NYS and NYC Building Codes. He is also an expert in the application of accessibility standards. Notable projects include Columbia Presbyterian Hospital (multiple projects), Hyatt Hotels (multiple projects), GGP and Simon Properties retail malls (multiple projects), as well as a number of mixed-use high rise buildings throughout NYC. B.S., Civil Engineering, M.S., Fire Protection Engineering, Worcester Polytechnic Institute.

**Mario A. Antonetti, PE** Principal and senior fire protection engineer, Gage-Babcock and Assoc., Inc. Projects include: Library of Congress, National Air and Space Museum and National Museum of Natural History at the Smithsonian Institution. B.S., Fire Protection Engineering, University of Maryland.

**Eric J. Babcock** Fire protection engineer with Gage-Babcock & Associates, Inc. Experienced in design and review of fire protection systems, and development of full building code analyses. Projects include educational facilities, air traffic control towers, governmental offices, computer rooms, governmental laboratories and research facilities; and historic buildings. B.S., Fire Protection Engineering, University of Maryland.

**Laura Benko**, feng shui consultant for the past nine years. She has trained and mentored with many world-renowned feng shui masters, is a Red Ribbon member of the International Feng Shui Guild and is the feng shui correspondent and home expert for the weekly television show, *Live It Up!* Benko appears every Friday morning on the magazine-style, inspirational show *Live It Up!* (WLNy Channel 10/55) delivering feng shui segments in a clear, concise, and compelling manner. Entering its fourth season and soon to be syndicated, Benko's segments are the viewers' favorites and have received an enormous amount of positive feedback. She contributes to several home and decorating magazines, *Martha Stewart Living Radio*, and has lectured around the country. B.A., Communication, William Patterson University.

**Kathleen Bowen Ha, ASA** Owner of Arcadia Appraisal Services with 25 years of experience as a NY Certified General Appraiser. She has been qualified as an appraisal expert in NYS Supreme Court. As the principal RE broker of Global Keepers LLC, Ha has marketed properties with energy efficient features and viewed many LEED certified projects. She serves on the Dobbs Ferry Task Force on Energy and the Environment and is a past member of the Architectural Review Board.

**James Convery, PE, CPP**, Assistant Manager of the Schirmer Engineering NY Regional Office. As a licensed Fire Protection Engineer in several states, Convery has over 20 years experience in fire protection engineering system design and building code consulting. His specialties also include construction management, risk management, security master planning, and emergency contingency planning. He has worked on a wide range of building occupancy types; including, but not limited to, higher education, mixed use buildings, historic buildings and museums. Notable projects include the World Trade Center Redevelopment Project, the Asbury Park Redevelopment (multiple projects), several Smithsonian Museums, and a wide range of other projects throughout the country. B.S., Administration of Criminal Justice, University of Lowell; B.S., Mechanical Engineering, M.S., Fire Protection Engineering, Worcester Polytechnic Institute.

**Lisa A. Easton, AIA** Architect, Easton Architects. She has worked on restoration of some of the NY Metropolitan region's note-worthy landmarks and developed a reputation in the field as an expert architect, planner, lecturer and historian. B.Arch., Syracuse University; M.S., Historic Preservation, Columbia University.

**Tony Gelber, LEED® AP** Director Administrative Sustainability, Pratt Institute. He has extensive experience in facilities design, construction and environmental services. B.S., Construction Management; Pratt Institute; M.B.A., Management, University of Connecticut; M.S., City and Regional Planning, Pratt Institute.

**Leon Goodman PE, PTOE** Consultant. Former Manager, Transportation Planning Division at the Port Authority of NY and NJ. He has extensive experience in highway and transit planning, and is the author of technical publications, including highway entries in the 2005 *Encyclopedia of New York State*. Member, NYSSPE; Fellow, ASCE and ITE; former ITE International President. B.C.E., City College of New York, Completed graduate programs at Yale (transportation) and Harvard (management).

**Thomas L. Grassi, AIA** Architect and program manager with the Port Authority of NY and NJ for the past 25 years. During that time, he has served as both designer and program manager for some of the region's most significant transportation projects including the Newark and JFK Airports AirTrain systems and, since 9/11, the WTC Temporary PATH Station, and the Transportation Hub. B.Arch., Pratt Institute.

**Michael Hardiman, AIA** Architect with NCARB certification. Moving to London in 1999, he became a director and part owner of The Forge Company London Ltd. that specialized in the design and delivery of offsite-fabricated solutions for the affordable housing market in England, Scotland, and Wales. In 2004, he served as the president of the AIA chapter in the United Kingdom. He currently lives and works in Boston, Massachusetts. B.Arch., Pratt Institute.

**Erleen Hatfield, PE, AIA, LEED® AP** Architect, structural engineer, with 14 years of design experience. Works extensively with structural steel in both conventional and exposed applications. B.A., Architecture; M.S., Civil Engineering, University of Nebraska.

**Kent Hikida, AIA** Associate, Gensler, LLP, NYC. He is an architect/designer specializing in broadcast and media facilities. Projects include Rainbow Network Communications broadcast facility, Thirteen/WNET Broadcast Facility and Headquarters. M.Arch., Columbia University.

**Mark Jackson**, Accessibility Specialist, Steven Winter Associates, Inc. He is an ICC Certified Accessibility Inspector/Plans Examiner with expertise in the accessibility-related scoping requirements and has extensive experience in the accessible design and construction requirements of federal accessibility laws, including the Americans with Disabilities Act (ADA), the Fair Housing Amendments Act of 1988 (FHA), and Section 504 of the Rehabilitation Act of 1973. He conducts plan reviews of multifamily residential, hotels, and commercial buildings to assess compliance with the accessibility requirements of federal, state and local laws and building codes. He has performed numerous inspections of buildings at all stages of construction to assess for accessibility compliance. He routinely provides accessibility related technical consulting to public and private clients.

**Daniel Karpen, PE** Professional engineer and consultant. He is recognized nationally for his innovations over a wide range of energy conservation areas. Member of the Association of Energy Engineers and is a certified Energy manager. M.B.A., Adelphi University; M.A., Mathematics, SUNY-Stony Brook; B.S., University of Washington, Seattle.

**Terese M. Kinsley, PE, LEED® AP** Professional Engineer and LEED Accredited Professional. Kinsley has over 27 years of consulting and regulatory experience working as an environmental engineering compliance and sustainability specialist. Chief Sustainability Officer for the Town of Huntington, N.Y. Member of USGBC, NSPE, NYSSPE, ASES, NESEA. B.S., Environmental Engineering, University of Florida.

# Faculty

**Martin Kravitt, RA** Specializing in restoration, adaptive reuse and historic preservation of residential, commercial and municipal projects. Awards: Vermont Preservation Trust Award, adaptive reuse of a rural schoolhouse; AIA Honors Awards, restoration and adaptive reuse; Ford Foundation grant, restoration and conversion of an aircraft carrier into a mobile high school for NYC. B.Arch., Pratt Institute; postgraduate, New School and NYU.

**Robert D. Krouner** Consulting Engineer, with over 50 years of experience in contracting, HVAC equipment sales, mechanical-electrical design, building analysis and M/E construction management. Former engineering partner in the Einhorn Yaffee Prescott Krouner (EYPK). BME, Clarkson University.

**Kate Lemos** Preservationist and architectural historian at Beyer Blinder Belle. Former preservation consultant for architects Norman Foster, Jean Nouvel, Matthew Baird, Polshek Partnership, SOM, building owners, and reviewing authorities on rehabilitations and new design in historic settings. Co-author of a monograph titled *Carrère & Hastings, Architects* (Acanthus Press, 2006). B.A., Architectural Studies, Brown University; M.S., Historic Preservation, Columbia University.

**Dominic Marinelli** Director, Accessibility Services, United Spinal Association (formerly the Eastern Paralyzed Veterans Association). He is certified as an Accessibility Specialist by the International Codes Council (ICC) and as a Code Enforcement Official by the New York State Department of State.

**Roy R. Pachecano, AIA** Founder of Portico Residential LLC—a principal investor in green-sustainable residential, historic, commercial real estate development projects. He began his career offering advisory services to some of the world's best known commercial and institutional clients including law firms, investment banks, pension funds, conventional lenders on financial/property due diligence. Lecturer, columnist for *BuilderNews Magazine* and author of over 50 professional articles. Member: ULI, APA, AIA, USGBC. M.S., Real Estate Development, M.S., Architecture, Columbia University. rp@porticorei.com

**Dale Paegelow, AIA, RA, NCARB**, has run his own architectural firm since 1983 and has worked with many of the metro area's better-known architectural and engineering firms plus several public agencies. Organizational affiliations include: The American Institute of Architects (AIA); The National Council of Architectural Registration Boards (NCARB); American Society of Home Inspectors (ASHI), National and Local; National Association of Certified Home Inspectors (NACHI), National and Local (2008-Present); Independent Home Inspectors of North America, (IHINA); and the National Association of Home Inspectors (NAHI). He is the author of *Forensic Architecture, An Introduction* (Cromlech Architect, 2001). B.F.A., Environmental/Interior Design, Pratt Institute; B.Arch., Pratt Institute.

**Dave Powell** is the former Director of Advocacy and Organizing for the New York State Tenants & Neighbors Coalition. Previously he headed the South Brooklyn Accountable Development Initiative, a project of the Fifth Avenue Committee, where he authored several papers on the effects of land use actions on tenants. He is currently co-producing a documentary film that explores the use of community land trusts in New York City.

**Edward D. Re, Jr., AIA RA**, Construction Manager, Architect, Educator. Certified Professional Constructor (AIC) Trustee, Certified Real Estate Appraiser (NAREAA), Certified Environmental Inspector (EAA), Arbitrator (AAA), Founder (CMAA), *Who's Who in America, Science and Engineering, & the World, Inventor, United Inventor's*. M.S., Facilities Management, Pratt Institute; B.S., Construction Management, Pratt Institute.

**David Robbins AICP, RLA, LEED**, is an accomplished planner, urban designer, and landscape architect. His experience has focused on complex planning, design, and development challenges. The recipient of numerous planning awards, Robbins' work focuses on helping clients to reach their goals and creating environments that incorporate the numerous environmental, economic and social dynamics at play. He holds master's degrees in Landscape Architecture and in Urban Planning from Harvard University.

**Michael J. Rzeznik, PE**, Managing Director, Schirmer Engineering NY Regional Office. As a licensed Fire Protection Engr in several states, Rzeznik has over 20 years experience in fire protection engineering system design and building code consulting. He has participated and managed complex projects throughout the United States and abroad. His experience covers a wide range of building occupancy types; including, but not limited to, industrial plants, chemical production facilities, higher education buildings and campuses, hospitality, mixed use buildings, communications facilities, historic buildings and museums. Notable projects include the World Trade Center Redevelopment Project, the SUNY Potsdam Performing Arts Center, several Smithsonian Museums, and the Limitless Downtown Mixed Use development project in Dubai, UE. B.S., Physics, SUNY-Albany; M.S., Fire Protection Engr, Worcester Polytechnic Institute.

**Irene Santoro, LEED® AP**, Consultant with 20+ years of experience designing and building alongside top architects. Santoro designs for residential and commercial clients from New York to Florida. She assists in all aspects of design, from conception to construction, providing project management for traditional code or LEED® certification. She personally developed the Allergy Free Methodology called "Allergy Free Design" to help allergists treat babies and children. Her company, Charles Anthony Interiors LLC and Forever Green Training & Sustainable Design are members of the U.S. Green Building Council. She has written several preparatory books that coordinate with the LEED® reference guides.

**Ben Scaglione, CPP** A well-known security design consultant, he has been Director of Security at some of the largest facilities in NYC. The featured speaker at many professional organizations, he has published articles in leading trade magazines and has taught security technology courses at several colleges including John Jay College of Criminal Justice. He has a Master's Degree in Criminal Justice and is a Certified Protection Profession (CPP).

**Charles Schnabolk, PE**, Lecturer and author *Physical Security: Practices and Technology* (Butterworth-Heinemann, 1983). Principal of consulting engineering firm specializing in designing security and fire alarm systems for public and private complexes. Projects include the WTC, museums, the New York City and Newark School Systems, healthcare centers, and commercial and residential buildings. P.E. License and Master Electrical License Projects with EE degree, Stevens Institute; M.B.A., New York University.

**Abby Schwartz, RA, SARA**, Practicing Architect for over 27 years with licenses in both Pennsylvania and New Jersey. As principal of Abby Schwartz Associates, Integrated Architecture and Interiors for the past 18 years, she has serviced a wide variety of clientele that include high-end residential, small businesses, banking institutions, housing authorities, religious institutions, restaurants, and retail establishments. With published work, prestigious awards and honors under her belt, she currently serves as a director of the Pennsylvania Society of American Registered Architects and an adjunct professor at Moore College of Art and Design in Philadelphia. M.Arch., University of Pennsylvania; B.A., Brandeis University.

# Faculty

**Van Singer, PE**, has specialized in the mapping, locating, and design of underground utilities for some 25 years. He began his career with the founder of Subsurface Utility Engineering (SUE) and has applied the process to several thousand projects. He is currently a licensed professional engineer in eight states and manages the Northeast U.S. office of Accumark, Inc., continuing to perform utility investigations on urban redevelopment, utility, military, and transportation projects.

**Stanley Stark, FAIA**, VP and National Director for Life Sciences, HDR Architecture, Inc. Noted speaker and seminar leader: Tradeline Forums on Business, Technology and Building. Author of numerous articles, NSF/NIH Advisory Panel.

**Peter A. Stratton** Senior Associate with Steven Winter Associates, Inc., where he manages accessibility compliance consulting services provided to public and private clients, including one of the top-10 largest public housing authorities and the largest private multi-family residential rental real estate firm in the United States. Stratton provides consulting expertise to the U.S. Department of Justice and to other private and nonprofit law firms. He routinely manages compliance consulting services, including plan reviews and construction administration, provided to developers, architects, and builders, nationwide. He is the author of *A Basic Guide to Fair Housing Accessibility – Everything Architects and Builders Need to Know about the Fair Housing Act Accessibility Guidelines* (John Wiley & Sons, Inc., 2001)

**Robert Summers, CPP** Director of Security Consulting for Hughes Associates, Inc. with over 27 years of experience in security management and law enforcement. Specializes in threat/vulnerability assessments, CPTED plan reviews and complete security design and engineering services for Government Agencies, Educational and Corporate sector clients. B.S., Criminal Justice Administration, William Paterson University.

**Thomas G. Thomann, Ph.D., PE** Senior Project Manager, URS Corporation. Manager of the GeoEngineering group for the NYC Metropolitan area, he has extensive geotechnical engineering experience in the New York City area, including foundation design of high-rise buildings, major bridges, retaining walls, and landfills.

**Juan C. Toro, PE, HBDP, CPMP, LEED AP**, associate at Steven Winter Associates, Inc., has been responsible for leading the firm's design, commissioning, and retro-commissioning work. He is an experienced mechanical engineer and has been responsible for designing complex and innovative mechanical systems for several LEED-certified buildings. Toro was one of the first engineers in the country to receive the ASHRAE certifications for High-performance Building Design Professional (HBDP) and Commissioning Process Management Professional (CPMP) and is responsible for assisting his firm's various groups with the development of sustainable engineering design solutions for their projects. B.S., Mechanical Engineering, EAFIT University, Colombia, S.A.

**Brian Trimble, PE** Director, Engineering Services and Architectural Outreach, Market Area I for the Brick Industry Association. He has over 19 years of experience in the masonry industry, assisting design professionals in the design of brick and masonry structures. A lecturer to local and national construction industry groups, he has authored many articles and papers on various masonry subjects.

**Charles Turofsky, PC, RLA** Landscape architect and consultant to numerous architectural and engineering offices. Recent urban projects include Independence Plaza, 330 E. 80th St., Hammer Library Plaza at Columbia University, Seward Park, New York, and 75 Henry St., Brooklyn. M.L.A., University of Michigan; Post-graduate, Harvard University.

**Kenneth Wagner, PE, MSCE** Professional Engineer with specialization in construction and design of concrete, reinforced masonry, and wood frame structures. Implemented the design and construction for decorative facades of residential buildings juxtaposed with designs of wooden scaffolds. Completed extensive design/fabrication courses for steel trusses spanning 30 ft. BECE, The City University of NY, The City College of Engineering; MSCE, Polytechnic Institute of NY.

**Alfred Yalaju, RA** Principal architect and acoustical consultant at CI Associated Architects & Consultants, PC, Albany, N.Y. He has technical service experience in architectural acoustics and noise control, as well as architecture service experience in commercial, industrial, institutional, transportation, and healthcare facilities on several international and domestic projects in the States of New York, Texas, and Washington. Associate Member: Acoustical Society of America; B.S., Physics, TSU; M. Arch., University of Houston.

**Steven Zalben, AIA, NCARB** Architect, Forensic Architect, Author/Artist. He has 30 years of experience with historic structures, adaptive reuse, accessibility design. He does design and construction management of residential, commercial, institutional projects, and investigation of building failures and defects. B.Arch., CCNY; B.A., Mathematics, Queens College.

**Jimmy Zuehl**, architectural specialist for the United Spinal Association, has been working in the field of architecture for over 15 years. His duties at United Spinal Association include accessibility training, technical assistance, plan review, site assessments, accessible design, and code development. Consultations on projects include Vornado Realty Trust malls in Puerto Rico and across the United States, Pyramid malls, Kimco Realty Corporation malls, PepsiCo offices and bottling facilities, Lincoln Center for the Performing Arts, The Juilliard School, Cornell University, the new Yankee Stadium, the United Nations, and numerous residential properties. B.Arch., San Diego NewSchool of Architecture and Design, where he also completed a minor in urban studies.

# Information

## Refunds

Students who for any reason find it impossible to complete the course for which they are registered should inform the Center for Continuing and Professional Studies in writing that they wish to withdraw. Failure to complete the course does not constitute official withdrawal, nor does notification to the instructor. The lack of attendance alone does not entitle a student to a refund. Pratt cannot be responsible for providing make-ups or issuing refunds for programs missed as a result of illness, emergencies, or other events beyond our control. Withdrawals do not necessarily entitle the student to a refund of tuition and fees paid, or the cancellation of tuition still due. The postmark is considered the date of withdrawal for refund requests by mail. Withdrawal or refund requests cannot be made by telephone or through the instructor. No requests for refunds will be handled by phone. There will be no refunds for any reason after the second class meeting. Please note: Allow 60 days for refunds to be processed.

## Withdrawal Policy

Seminars and 4-6 Day Courses:

- Withdrawals 6 business days before start date 100% tuition
- No refunds after this date.

**Please note:** All requests for withdrawals must be done in writing. Please allow 60 days for processing of refunds.

## Fees

### Registration Fee

There is a \$10 registration fee charged for each non-credit course over \$95, for which you enroll. The fee is non-refundable, unless classes are cancelled due to lack of enrollment.

### Uncollectible Checks

\$15 surcharge is imposed for processing.

## Registration Deadlines

Registration deadlines for all courses are one week prior to course start dates, unless otherwise noted. Exceptions will be allowed based on space availability. We recommend that you register early.

## Transcripts

Students enrolled in AIA Professional Development courses will receive one transcript at no charge. The transcript will include Pratt's AIA Provider #. A fee of \$5 will be charged for each additional transcript, letter of completion, or any additional certificate requested. Requests for all additional transcripts relating to your record should be addressed to Pratt Manhattan, Center for Continuing and Professional Studies, Attention: AIA Continuing Education Transcripts, along with remittance. Request must state name while in attendance, dates of attendance, and course(s) of study.

## OneKey Account Information

OneKey usernames and passwords are necessary for all students and faculty of Pratt Institute.

### To Get your OneKey username and password:

Register online for courses through Instant Enrollment:

- Visit [www.pratt.edu](http://www.pratt.edu)
- Click on the link – **Instant Enrollment, CCPS**
- Enter the course code in the **Course Code field** (PMPP 455 for example)
- You will be taken to the **Payment Screens**
- A **receipt** will be emailed to you upon successful registration.
- Your login and password are mailed to your street address. Allow 24 hours for processing, so register early to guarantee yourself a seat and start using your benefits.

## Privacy

Pratt Institute is a private educational institution and does not share email addresses or any personal data with external resources. Instant Enrollment is a secure server— use this with confidence to pay for classes.

## Discounts

Discounts listed below apply to all continuing education courses, unless otherwise noted in the course description. The discount is computed on the actual tuition, minus the registration fee. Only one discount can apply, per semester. Note multiple types of discounts do not apply.

### Pratt Alumni Discount

Alumni of Pratt degree programs receive a 10% discount on non-credit courses, if stated at the time of registration.

### Senior Citizen Discount

Senior citizens 65 and older who present evidence of age at the time of registration will receive a 10% discount.

### Corporate Discounts

Corporate discounts apply to three or more registrants from a company in the same section of a course or seminar. For further information, contact Karen Adler Miletsky at 212-647-7199 or email [kmiletsk@pratt.edu](mailto:kmiletsk@pratt.edu).

### Corporate Billing

Purchase Orders accepted. Please forward with registration.

### Customized Training

For further information on customized training for your facility, call 212-647-7299.

### Free Catalog

To request a copy of the CCPS catalog, call 212-647-7199 or download a pdf at [www.pratt.edu/prostudies](http://www.pratt.edu/prostudies).

# How to Register

## In person

Pratt Institute  
144 West 14th Street, Room 209  
between Sixth and Seventh Avenues  
New York, NY  
M–Th 10 AM–6 PM, F 10 AM–2 PM

## By mail

Fill out the mail registration form or facsimile and mail with check or money order to:  
Pratt Institute  
Center for Continuing and Professional Studies  
144 West 14th Street, Room 209  
New York, NY 10011–2700

## By telephone

Call 212-647-7199 with your American Express, Discover, MasterCard or Visa credit card number.  
M–Th 10 AM–6 PM, F 10 AM–2 PM

## By fax

Dial 212-367-2489 with your mail registration form filled out and your American Express, Discover, MasterCard or Visa credit card number, along with the expiration date and security code.

## By email

Email us at: [prostudy@pratt.edu](mailto:prostudy@pratt.edu)

## Online/Instant Enrollment

<http://my.pratt.edu>  
Online registrations received through [my.pratt.edu](http://my.pratt.edu) will receive confirmation via email. American Express, Discover, MasterCard and VISA are accepted.

## Registration Deadlines

Registration deadlines for all courses are one week prior to course start dates, unless otherwise noted. Exceptions will be allowed based on space availability. We recommend that you register early.

# Course Locations

## Program Locations

Please note that all sections are held at our Manhattan Center, 144 West 14th Street, unless otherwise noted. If you have any questions, please feel free to contact us.

## Pratt AIA On-site Offerings

These lectures can be delivered on-site to corporate clients. For further information, please contact Karen Adler Miletsky at [kmiletsk@pratt.edu](mailto:kmiletsk@pratt.edu).

# Directions to Pratt

## Pratt Institute

Center for Continuing and Professional Studies  
144 West 14th Street  
between Sixth and Seventh avenues  
New York, NY 10011-2700

## By Subway

Take the A, C, E to 14th Street/Eighth Avenue, the F, V to 14th Street/Sixth Avenue, the 1, 2, 3 to 14th Street/Seventh Avenue, or the 4, 5, 6, N, R, Q, W to 14th St/ Union Square and switch to the crosstown L to 14th Street/Eighth Avenue.

## By Bus

**Uptown** take the M20, to 14th Street/Eighth Avenue. **Downtown** take the M20 to 14th Street/Seventh Avenue. **Uptown** take the M6 to 14th Street/Avenue of the Americas. **Downtown** take the M6 to 14th Street/ Union Square, then take the M9 or M14 crosstown buses.

## By Car from Queens

Via **59th Street Bridge South** on FDR Drive to 23rd Street exit. Make right turn on 23rd Street. Make a left turn on Second Avenue. Take Second Avenue to 14th Street make a right turn. Pratt is located between Sixth and Seventh avenues on the south side of the block, closest to Seventh Avenue.

## By Car from New Jersey

**Holland Tunnel** Bear right to Eighth Avenue. Take Sixth Avenue to 14th Street make a left turn. Pratt is located between Sixth and Seventh avenues on the south side of the block, closest to Seventh Avenue.

## By Car from Westchester

**Westside Highway South** Left turn on 14th Street. Pratt is located between Sixth and Seventh avenues on the south side of the block, closest to Seventh Avenue.

## By Car from Brooklyn

Via **Brooklyn Bridge** North on FDR Drive to Houston Street exit. Left on Houston Street to Third Avenue make a right. Take Third Avenue to 14th Street make a left turn. Pratt is located between Sixth and Seventh avenues on the south side of the block, closest to Seventh Avenue.

## By Path from New Jersey

Take the Path to 14th Street Exit at Sixth Avenue and 14th Street.

## Parking in Manhattan

Limited street parking is available on weekdays and weekends. Weekday parking is available after 6 PM. Parking is available for a fee in nearby parking lots.





*Pratt Institute  
144 West 14th Street, Room 209  
New York, NY 10011-2700  
Telephone: 212-647-7199*

*Center for Continuing  
and Professional Studies*

*<http://www.pratt.edu/prostudies>*

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## Spring 2012

**Classes begin January 17, 2012**

**AIA Continuing Education  
Professional Development Series For  
Architects and Professional Engineers**

