



Our Mission is to ensure the credibility of the roofing, waterproofing, and exterior wall consulting professions.



Educational Offerings 2011-2012



RCI offers a series of educational courses and seminars throughout the year in the U.S. and Canada covering all segments of the building envelope. Seminar material is continually updated with the latest technology and industry practices. Courses are taught by RCI professional staff and field professionals or RCI volunteers with years of experience and a wealth of expertise.

Courses are available in three formats: as on-site delivered courses at chapter and national level, delivered by staff, approved instructors or a combination of both; by on-line delivery as e-learning courses; or as contract courses. Please contact RCI for more information about the contract course option. For online courses, please see registration information at www.rci-e-learning.org/home. For course dates and locations, check the Calendar of Events on RCI's Web site: www.rci-online.org. Manuals are provided for on-site courses and are also available for purchase separately.

For on-line courses, slides may be printed to create a manual. Although they are recommended, the courses below are not intended as preparatory for RRC[®], RWC[®], RRO[®] or REWC[®] exams. All courses offer Continuing Educational Hours (CEHs).

**Director of Educational Services
Education Committee**

Rebecca Cunningham, RA, LEED AP
Joshua Summers, SE, REWC, PE, (Chairman)
Kami Farahmandpour, FRCI, RRC, RWC, REWC, RBEC, PE
Raymond Wetherholt, RRC, RWC, REWC, RBEC, PE
Paul Buccellato, RWC, FASTM, REWC, AIA
Timothy Barrett, RRC, CDT, GRP
Doug Fishburn, RRO

Education Advisor/Consultant

Gerard Teitsma, RRC, RRO, CCA

Roofing Technology and Science I

This two-day course is the first component of a two-part series covering aspects of the technology and science of roofing in detail. It covers the history and evolution of roofing up to present-day common applications. It features terminology and technical information regarding roof decks and structures, roof insulation, bitumen membranes, built-up and modified bitumen membranes and flashing systems. An understanding of heat transfer theory, moisture, thermal design, and the calculation of U-factors are also presented.

Highlights of the program include: critical aspects of roof decking and related supporting structures, heat transfer and practical heat transfer calculations, the function of heat transfer and the different types of roof insulation, the technology behind roofing bitumens and their related BUR and modified bitumen membranes, and basic flashing nomenclature and bituminous flashing system construction.

The Roof Technology and Science I course features fundamental concepts that prove useful for students in other RCI educational programs. Roof consultants, facility managers, contractors, architects, engineers, roofing material salespeople, property managers and others can gain new insight and professional development in the continually evolving world of roofing technology.

Available on-site with both U.S. and Canadian content, on-line, and as a contract course. CEH: 16 (8 Online)

Roofing Technology and Science II

This two-day class is the second course of the two-part series covering aspects of the technology and science of roofing in detail.

Highlights of the program include: fundamentals of single-ply, polyurethane foam and PMR roof systems; basic concepts and terminology of metal roofing; steep roof design and installation of asphalt shingles, tiles, wood shakes and shingles; building codes; fire testing/ratings of roofing; a basic understanding of wind interaction upon roofing and typical wind ratings; and principles of roof asset management, including roof inspections, maintenance, and nondestructive evaluations.

This course is designed to provide individuals of differing backgrounds with relevant information about roofing technology and design. The chapters vary in intensity, from basic roofing concepts to advanced specific application principles and theory.

Available on-site with both U.S. and Canadian content, on-line, and as a contract course. CEH: 16 (8 Online)

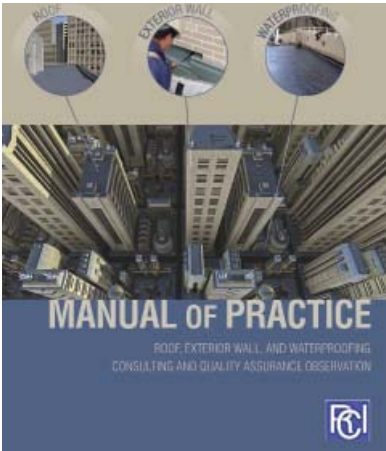


Rooftop Quality Assurance

Rooftop Quality Assurance is a two-day course for professionals interested in observation to help assure roof installation is consistent with construction documents. The program covers the diverse and challenging aspects of roofing as encountered in the field and is ideal for roofing material manufacturers, general contractors, quality assurance observers, and field inspectors. Course participants will receive objective and knowledgeable insight to the field of roof observation and role delineation for the observer. It also helps prepare individuals to provide an independent measure of quality and assists with project communications and coordination. Successful students will also be able to apply roofing technology to the observer function.

Instructors cover fundamentals of quality assurance, component assembly and quality practice guidelines for a variety of roofing systems, including: the role of the roof observer, construction contract documents, daily reports, low-slope roofing, spray-applied foam, steep-slope roofing, ethics, and codes. Although not a preparatory course for the Registered Roof Observer (RRO) exam, this course provides useful information for the observer who is preparing for RRO registration.

Available on-site with both U.S. and Canadian content, on-line, and as a contract course. CEH: 16 (8 Online)



Professional Roof Consulting

This two-day course has been developed for roof consultants who wish to broaden their skills and develop techniques for improved professionalism. The program features concepts that are both business-related and technical in nature.

Highlights of the program include: important concepts for becoming more professional as a consultant; roof consulting ethics, including the mission and history of RCI; business concerns such as legal and insurance matters, contracts and contract documents; design-related consulting issues such as roof system selection criteria; reroofing considerations; roof asset management; roof inspections; and selected technical issues, including the chemical and physical forces in roofing and an overview of waterproofing.

Available on-site, and as a contract course. CEH: 16

Roof System Thermal and Moisture Design (Formerly Advanced Thermal and Moisture)

Consultants or industry members who want to develop more in-depth thermal and moisture design skills will want to take this course. Subjects move quickly beyond basic thermal terminology and calculations to cooling-load calculations, annual energy consumptions and payback calculations, cool roofing, and temperature calculations within cross sections. Moisture starts with the psychrometric chart and moist-air properties. Additional topics include vapor retarders, the effects of moisture on insulation, air barriers, and mold issues. Ample time is reserved for practice problems.

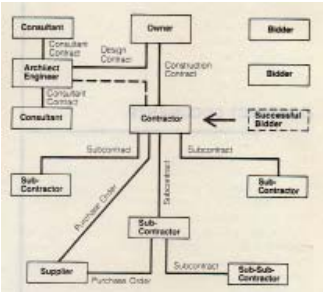
Available on-site, on-line, or as a contract course. CEH: 8 (4 Online)



Rooftop Safety for Consultants and Building Owners

In a one-day course, the OSHA (Occupational Safety and Health Administration) safety responsibilities of each participant in a roof construction or inspection process are discussed. Both Part 1926 (construction standards) and Part 1910 (general industry standards) are covered, including where they apply. The safety role of the non-contractor parties is presented. Also discussed are consultant and building owner safety programs for their employees. This course does not provide sufficient safety training for the roofing contractor.

Available on-site or as a contract course. CEH: 8



Construction Specifications and the Project Manual

This one-day course provides training in the content of the project manual for roofing projects. Included are discussions on bidding documents, conditions of the contract, and technical specifications. Maintaining a valid contract through the use of appropriate addenda, change orders, change directives, and other instruments of change is discussed. Guidance is also provided in writing specifications.

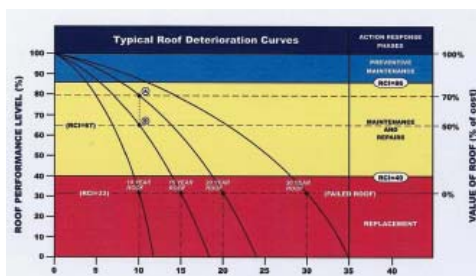
Available on-site or as a contract course. CEH: 8



Waterproofing

This two-day course is aimed at the practicing waterproofing consultant and those who are aspiring to become Registered Waterproofing Consultants. This course focuses on split-slab plaza deck systems, surface-applied waterproofing, and below-grade waterproofing. The course starts with a review of differences among roofing, dampproofing and waterproofing. Other topics include waterproofing materials and accessories used for various applications, design and specification; application techniques; and a thorough review of concrete used as a substrate for waterproofing, including typical concrete repair materials and techniques used for restoration of concrete slabs prior to application of waterproofing systems.

Available on-site, or as a contract course. CEH: 16



Roof Asset Management

The process of Roof Asset Management (RAM) is a series of steps and procedures aimed at treating the roof as a business asset. The purpose is to achieve a dependable roof system at a low cost per year. The one-day RAM course teaches principles and techniques, as well as financial terminology and calculation methods. Computer software programs designed to simplify the process are described and demonstrated. The course is aimed at consultants, building owners, and roofing contractors who provide roof asset management services or would like to expand into this area.

Available on-site or as a contract course. CEH: 8



Exterior Walls Technology and Science

This two-day course provides basic exterior wall technology and terminology that will be used as the fundamental base for future exterior wall course offerings. The course covers a broad range of topics, including types and functions of exterior walls, psychrometrics and moisture movement, design objectives and building code requirements, wall penetrations, materials, coatings and water repellants, and sealants.

This broad course is aimed at those preparing to expand their knowledge into exterior walls and at those already practicing in this area who want to further develop their knowledge in exterior wall technology. Exterior Walls Technology and Science will also serve as a good review course for those interested in taking the Registered Exterior Wall Consultant exam.

Available on-site or as a contract course. CEH: 16

Masonry Wall Systems

This 1.5-day course is the first specific exterior wall course that builds upon the fundamentals presented in Exterior Walls Technology and Science. The purpose of this course is to provide an in-depth understanding of masonry wall systems as they are designed as part of the building envelope system. Highlights of this program include: materials and their properties, masonry accessories, applicable design codes and standards, design and construction requirements, evaluating and repairing masonry wall problems, and maintaining masonry walls.

This in-depth course is recommended for those who have taken Exterior Walls Technology and Science and want to further expand on their knowledge of exterior wall systems. Masonry Wall Systems will also serve as a good review course for those interested in taking the Registered Exterior Wall Consultant exam.

Available on-site or as a contract course. CEH: 12



Vegetative Roofs for the Design Professional (Formerly Green Roofing)

This one-day course is structured for those who design vegetative green roofs or who are responsible for correcting vegetative green roof thermal or moisture-protection performance problems. Vegetative green roof design is a technically demanding and evolving growth industry. This course provides guidance in the areas of design criteria, system selection, reference standards, and flashing principles and will discuss the influences of Factory Mutual, ASTM, GRHC and NRCA publications and guidelines. The course is focused on the specific aspects of thermal and moisture performance with an introduction to green roof vegetation and soil considerations. It is not intended to provide in-depth information on plants or growing media.

Available on-site or as a contract course. CEH: 8

RRC® Review and Update

This one-day course is aimed at those who have already passed the RRC exam and want a review of skills and to be updated with new information, and those who have the necessary tools to complete the RRC registration exam and desire a quick brush-up on technical topics as a review. Covered are a review of wind design, including ASCE 7 and FM Global requirements; thermal calculations; CSI changes; green-roofing principles; and roof asset management (RAM) calculations. Updated information is provided in all areas.

Available on-site or as a contract course. CEH: 8

Roofing Basics

Roofing Basics provides an understanding of all types of low-slope roofing materials and systems and their associated vocabulary. It is helpful to those who have little or no roofing knowledge. Topics include roof decks, insulation, various types of membranes, and maintenance information.

Available as an on-line course. CEH: 4

Roof Drain Design and Calculations

Roof Drain Design and Calculations is focused on methodology of design and sizing of interior roof drains, leaders, piping, and scuppers, as well as exterior gutters and downspouts.

Available as an on-line course. CEH: 4

Wind Design for Low-Slope Roofs – Part I: Understanding ASCE 7-05 Wind Load Calculations

This course offers step-by-step instructions for calculating wind-uplift pressures on low-slope roofs in accordance with ASCE 7-05 and the International Building Code. Skills learned in this course provide insight into all wind design guides.

Available as an on-line course. CEH: 8

Wind Design for Low-Slope Roofs – Part I: Understanding ASCE 7-10 Wind Load Calculations

This course offers step-by-step instructions for calculating wind-uplift pressures on low-slope roofs in accordance with ASCE 7-10 and the International Building Code. Skills learned in this course provide insight into all wind design guides.

Available as an on-line course. CEH: 8

Wind Design for Low-Slope Roofs – Part II: FM Global Guidelines and Best Practice Considerations

As a follow-up to ASCE 7 calculations, Part II provides a guide to FM Global design and construction criteria as per FM Data Sheets 1-28, 1-29, 1-49, and 1-52. The course also covers ANSI/SPRI ES-1 and portions of ANSI/SPRI RP-4.

Available as an on-line course. CEH: 8

Courses under Development

- Traditional and Engineered Portland Cement Plaster Cladding Systems
- Metal Roofing
- Concrete Exterior Walls
- Professional Building Envelope Consulting

Other Educational Opportunities



Building Envelope Symposia

A Building Envelope Symposium is held each year in a strategic geographical location. This two-day seminar features presentations on the building envelope, including below-grade waterproofing, building sealants, deck coverings, exterior insulation and finishing systems, fenestration, maintenance programs, material testing, membranes, penetrations and flashings, tilt-ups, and water repellents. It is designed for roof consultants, architects, engineers, building owners, maintenance supervisors, general contractors, plant engineers, specifiers, and roofing company employees who desire a general overview of the elements of the building envelope and how they relate to one another.

Region/Chapter Meetings

Each of RCI's regions and chapters has periodic one-day meetings that include substantial educational components. Speakers include experts in various aspects of roofing, waterproofing, and exterior walls, as well as industry representatives. See our Web site for links to our chapters' upcoming meetings.

<http://www.rci-online.org/affiliated-chapters.html>

RCI E-Learning Opportunities

See our Web site for current e-learning offerings. <http://www.rci-e-learning.org>



*RCI, Inc., 1500 Sunday Drive, Suite 204, Raleigh, NC 27607
Phone 919-859-0742 Fax 919-859-1328 Web www.rci-online.org*