



# MARVIN WINDOWS & DOORS

AN AIA/CES, AIBD, & GBCI CONTINUING EDUCATION REGISTERED PROVIDER

*Marvin® Windows and Doors understands the importance of continuing education and staying up-to-date with technology and trends. Marvin strives to bring you the most current information pertaining to subjects you find important. The following is the approved presentation list for AIA, AIBD, and GBCI continuing education courses.*



*Please call your local Marvin Windows and Doors Architectural Representative for an architectural tour or educational presentation. See [MARVIN.COM/AIA](http://MARVIN.COM/AIA) for further information.*



# CLASSES

## AAMA 2605: GREATER THAN THE SUM OF ITS PARTS **1 HSW**

*This program takes an in-depth look at aluminum as a clad material and as a substrate for high-performance finish, as defined by AAMA 2605. Program content addresses aluminum characteristics, sustainability and life cycle, coating options and performance testing criteria.*

## FIBERGLASS COMPOSITE WINDOWS IN MULTI-FAMILY HOUSING **1 HSW**

*This course will focus on the use of fiberglass composite windows in multi-family housing, with an emphasis on Department of Housing and Urban Development (HUD) housing. This program addresses how to meet HUD fenestration standards by using appropriate technologies.*

## FUNDAMENTALS OF WINDOW AND DOOR INSTALLATION **1 HSW**

*This program provides a general overview of best-practice installation procedures for wood and aluminum-clad wood windows and doors. ASTM E-2112 Standards and anchoring techniques are presented.*

## PERFORMANCE CHARACTERISTICS OF PULTRUDED FIBERGLASS **1 HSW**

*This redesigned program focuses on the strength, durability, and thermal efficiency of pultruded fiberglass. It describes manufacturing processes and environmental advantages of fiberglass as a window and door material.*

## PERFORMANCE GLAZING: COATINGS, LAYERS AND GASES **1 HSW**

*This course explores how different aspects of glazing can be manipulated for increased performance, including Low E coatings, glass layering, and gas filled spaces. It also defines criteria for evaluating energy performance and glazing.*

## WINDOWS AND ENVIRONMENTAL GOALS **1 HSW**

*Sustainability issues are changing the building materials landscape. This program considers windows as building components from a variety of environmental perspectives. It addresses large themes like energy usage and measuring environmental impacts, and looks specifically at window performance variables and materials.*

## WINDOWS AND HISTORIC REHABILITATION **1 HSW**

*This presentation looks at historic renovation projects. Research, planning, window assessment, standards, and historic tax credits are reviewed. A broad range of window rehabilitation solutions are shown through case studies of historic projects.*

## WINDOWS OF OPPORTUNITY: FENESTRATION INNOVATIONS **1 HSW**

*This course shows how window design and manufacturing practices have evolved – advancing technologies in framing materials, coatings, and glazings to increase energy efficiency in both historic and new structures.*

# TOURS

## MARVIN FACTORY TOUR FOR ARCHITECTS **5 HSW**

*The centerpiece of this day-and-a-half architectural tour program is a 5 hour tour of the Marvin Windows and Doors factory in Warroad, MN. Learn about every facet of window manufacturing from wood processing through final unit assembly.*

## ARCHITECTURAL TOUR OF MINNEAPOLIS **4 HSW**

*Minneapolis is home to a number of 21st century contributions by world class designers including César Pelli, Jean Nouvel, and Herzog & deMeuron. See these and other buildings on an extensive walking tour of sites in Minneapolis. The architect-led tour focuses on energy efficiency, durability, safety, and other fenestration issues. A 2 HSW version of this tour is available.*

## CARDINAL TOUR **2 HSW**

*Take a two hour tour of a Cardinal Plant to see how float glass (Menomonie, WI), laminated glass (Amery, WI) or coated glass, Low E (Northfield, MN) is created. Learn about fabrication processes for tempering, laminating, coating, and insulating glass, and identify common problems in glazing.*

## WINDOW PERFORMANCE: ARCHITECTURAL TESTING FACILITY TOUR **1.5 HSW**

*This tour of a Twin Cities building materials testing facility will demonstrate how air, water, and structural tests for window and door products are conducted, and will show testing processes for NFRC values. Large scale testing, safety glazing testing, environmental conditions simulations, insulated glass testing and impact testing will be included.*



See [MARVIN.COM/AIA](http://MARVIN.COM/AIA) for further information.