



eDUCATION



# Little Red Schoolhouse<sup>®</sup>

SEMINARS FOR HVAC & PLUMBING SYSTEMS DESIGN AND SERVICE

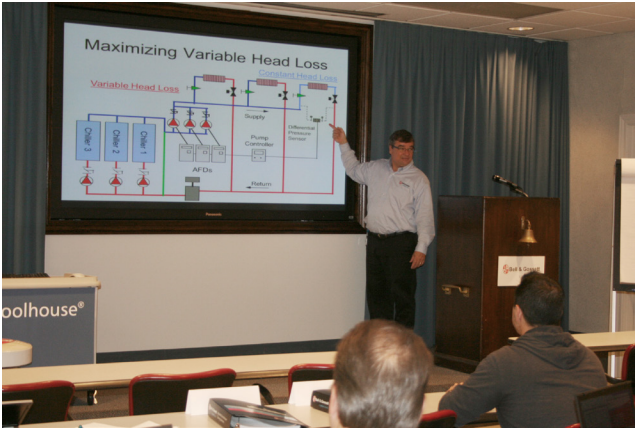
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**Bell & Gossett**

a xylem brand

# Bell & Gossett's Little Red Schoolhouse



The Bell & Gossett Little Red Schoolhouse has offered training for HVAC hydronic and plumbing systems for 60 years. These industry-leading training programs, well-known and respected both in the U.S. and around the world, provide students with a unique opportunity to learn valuable skills and gain critical application expertise.

## What sets Schoolhouse training apart?

- Students learn system design and product applications not product features and benefits.
- Training taught by full-time instructors focused on education.
- All courses use B&G technical manuals that are widely used throughout the world.
- The strongest training reputation in the industry - B&G has trained the industry.
- As an IACET Accredited Provider, Bell & Gossett's Little Red Schoolhouse offers CEUs for its programs that qualify under the ANSI/IACET Standard. Also provide GBCI CE Hours for LEED Credential Maintenance Programs.
- Located in the suburbs of Chicago, Illinois, USA for easy accessibility from anywhere in the world and in a city with renowned sites, sports teams, and other activities.
- Sister facility in Nanjing, China.
- Full access to web-based video refresher courses.

## Schoolhouse facilities include:

- Classroom style seating for 50 students.
- State of the art audio-visual equipment to assure a positive classroom experience.
- Hands-on, working demonstrations of numerous hydronic systems (including primary-secondary, variable speed and system balance).
- Laptop computers used in many of the design problems to assist in system design and product selection as well as instruction on how to use B&G's System Syzer® Tool.
- Little Red Schoolhouse seminars also include a tour of Xylem's manufacturing facilities.



Primary-Secondary pumping demonstration.



System balance demonstration.

# Seminars for the HVAC & Plumbing Industry

## Modern Hydronic Heating Systems Basic Seminar

**3 Days - 1.7 CEU Credits / 15 GBCI CE Hours Awarded**

### Who Should Attend

Wholesalers, contractors, or anyone with a desire to understand basic hydronic system design.

### Expected Learning Outcomes

- Discuss the advantages of properly designed hydronic systems
- Describe how to size boilers, pumps, piping, compression tanks and hydronic specialties for hydronic systems
- Apply rules of thumb to design simple systems
- Use the Bell & Gossett System Syzer to complete typical calculations

## Modern Hydronic Heating Systems Advanced Seminar

**3 Days - 1.7 CEU Credits / 15 GBCI CE Hours Awarded**

### Who Should Attend

Wholesalers, contractors, engineers, with a desire to understand advanced hydronic system design.

### Expected Learning Outcomes

- Discuss the advantages of properly designed hydronic systems
- Use the Bell & Gossett System Syzer to design more complicated systems
- Recognize when standard design techniques may lead to poor design decisions
- Discuss the differences between conventional design and conversion applications
- Apply the basics of primary-secondary pumping to simple zoned systems

## Design & Application of Water Based HVAC Systems Seminar

**3 Days - 1.7 CEU Credits / 15 GBCI CE Hours Awarded**

### Who Should Attend

Engineers, mechanical contractors and all others looking for in-depth knowledge of commercial hydronic system design.

### Expected Learning Outcomes

- Employ pump selection principles
- Use the System Syzer in advanced calculations
- Identify the importance of control valve sizing in hydronic systems design
- Recognize the importance of proportional balance
- Compute flow requirements in primary-secondary systems for energy savings
- Recognize the components of system pressurization and apply the fundamentals of tank sizing

## Large Chilled Water Systems Design Seminar

**3 Days - 1.7 CEU Credits / 11 GBCI CE Hours Awarded**

### Who Should Attend

Engineers, mechanical contractors and all others looking for in-depth knowledge of commercial hydronic system design

### Expected Learning Outcomes

- Identify and evaluate pumping alternatives for the secondary loop
- Apply ESP-Plus® equipment selection software to compute pump annual operating costs
- Discuss the impact of proper sensor selection and location
- Describe the benefits of good hydronic balance in large systems
- Compare the economics of alternative pumping methods

## Plumbing Systems Design Seminar

**3 Days - 1.7 CEU Credits Awarded**

### Who Should Attend

Consulting Engineers, Contractors, and Wholesalers looking for an in-depth knowledge of plumbing system design.

### Expected Learning Outcomes

- Discuss terminology and fundamental plumbing design concepts
- Apply design concepts to Potable Water Pressure Boosting Systems; Potable Water Heating, Distribution and Hot Water Recirculation Systems; Solar Thermal System, Wastewater Pumping Systems; and Rainwater Harvesting Systems.
- Utilize ESP-Plus applications to properly size and select pumps and equipment in a variety of design problems.
- Discuss codes and standards applicable to plumbing system design
- Discussion of the benefits of a properly designed commercial plumbing system

## Service & Maintenance of Water Based HVAC Systems Seminar

**3 Days - 1.7 CEU Credits Awarded**

### Who Should Attend

Hydronic system maintenance and service personnel, contractors and wholesaler personnel.

### Expected Learning Outcomes

- Discuss the major limits on seal performance
- Recognize the need for correct piping at the pump
- Apply recommended trouble shooting tables
- Measure and apply pump gauge readings to solve typical system problems
- Recognize the need for routine pump service procedures
- Learn laser pump shaft alignment

# Other Seminars for the HVAC & Plumbing Industry

## Steam Systems Design & Application Seminar

3 Days - 1.7 CEU Credits Awarded

### Who Should Attend

Engineers, plant supervisors and those involved in developing new steam plants, modifying or operating existing ones.

### Expected Learning Outcomes

- Discuss the development of modern steam system components, design ideas, and terminology
- Discuss common boiler controls and boiler operating principles
- Size steam and condensate piping using nomograms or software
- Use ESP-Plus to size pressure and temperature regulators
- Recognize how to avoid the damage mechanisms typically at work in steam heat exchangers
- Apply steam traps to solve system problems
- Describe the basics of condensate pumping equipment applications

### How to Enroll

To attend Little Red Schoolhouse Seminars, please contact the local B&G Representative in your area. Visit [www.bellgossett.com](http://www.bellgossett.com) to identify your local representative. They will have the scheduled dates for all seminars and will register you for the next available class. As has always been the case, Little Red Schoolhouse Seminars are offered free of charge. Travel, outside meal and hotel costs are each student's responsibility but all lunches on class days are included.

There is no advanced preparation for any of the seminars and all required materials are provided during the seminar. If a student has a laptop, they may bring it; however, it is not required.

For additional information, visit [www.bellgossett.com/training-education](http://www.bellgossett.com/training-education)

\* The USGBC has approved the technical and instructional quality of several Little Red Schoolhouse classes (see notes by class). These courses are approved for GBCI Continuing Education Hours towards LEED Credential Maintenance Programs.



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## Operation & Maintenance of Steam Systems Seminar

3 Days - 1.7 CEU Credits Awarded

### Who Should Attend

Steam system and boiler plant operators, maintenance supervisors, and engineers who would benefit by improving their ability to diagnose and fix steam system problems.

### Expected Learning Outcomes

- Increase the reliability of common boiler controls through routine observations and periodic tests
- Describe typical system component interactions
- Improve troubleshooting ability
- Avoid common mistakes in system operation



THE NEW Bell & Gossett

**SYSTEM SYZER**

APP FOR IPHONE / IPAD

Available on the App Store



Also available on Google Play™ for Android™ devices.