

# ASHRAE BLUEPRINT

February 2017

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## PRESIDENT'S MESSAGE John Schwartz

**Chapter Meeting: No regular meeting this month, see you at the Valentines Event!**

Chapter Members and Guests,

Wanted to drop a quick note out for February even though we are not having a regular monthly meeting. The annual Valentine's Day ASHRAE Dinner is scheduled for Friday, February 17<sup>th</sup> and you should have several opportunities to sign up for the event via an email invite. Keep an eye out for them and it would be fun to have a nice turnout this year!

Kasey Abbott, our Grassroots Chair, has been diligent in our pursuit of getting the 2009 International Energy Conservation Code adopted through the State. The bill 1116 is going to the [House Commerce Committee](#). Please contact your local Legislator as to why you feel they should vote to amend SD 11-10-6 as described in this bill (see attached in the email for a copy of the Bill). Need everyone's help on this since we are a little behind on our efforts to educate legislators! Any questions feel free to give Kasey a call.

Also, don't forget you may utilize our Chapter webpage (<http://sdashrae.org/>) to save future meetings to your calendar. Go to the Events tab, then you can select any of the future meetings which will take you to the link with that meeting's information and an icon to Add to Calendar.

Please mark your calendars for our March 8<sup>th</sup> Lunch Meeting at The Country Club!

-John

## Membership Nathan Larson

If you know of anyone that may be interested in joining ASHRAE, be sure to tell them about ASHRAE and invite them to a meeting. Membership information can be found at [www.ashrae.org/members/](http://www.ashrae.org/members/) or call Nathan at 605-996-7548 with questions.

# ASHRAE BLUEPRINT

## SPECIAL EVENTS

Kevin Eggert

Please save the date of Friday, February 17<sup>th</sup> for the ASHRAE annual Valentine's day gathering. The event will consist of a night at the Old Town Dinner Theater in Worthing, SD featuring a production of "Last of the Red Hot Lovers". Be watching your inbox for reminders on how to sign up for the event.

Please sign up no later than 1 PM, Wednesday, February 15<sup>th</sup>.

<http://sdashrae.org/meetinginfo.php>.

## HISTORY

Todd McInerney

This year, my goal as Chapter Historian is to look at the history of HVAC in Sioux Falls. I am currently reviewing the Argus Leader going back to 1880's to see how HVAC systems have evolved over the years. I found a lot of very interesting tidbits of information. My first attempt will be to look at refrigeration and air conditioning in Sioux Falls. So far, I've identified some of the earliest refrigeration systems and some of the first air conditioning systems (utilizing mechanical cooling). I am looking for your help in identifying other "firsts" in Sioux Falls for cooling systems, i.e. first ice storage system, first VRF system, first geothermal system. If anybody has any experience with a "first," please email me with any details on the system, location and dates, it would be much appreciated. Please send info to me at [toddm@mcinerneyengineering.com](mailto:toddm@mcinerneyengineering.com).

I am also doing a trivia contest as I uncover interesting facts on various systems that I have researched. Please email me your answers and the first person to answer correctly will receive mine as well as all other Chapter Member's admiration, and you will get your name posted in next month's Blueprint. Please email your answers to [toddm@mcinerneyengineering.com](mailto:toddm@mcinerneyengineering.com) and put in the subject line "trivia"

Trivia Question: The State Theatre in downtown Sioux Falls opened in 1926. In the early summer of 1927, a cooling system was installed to become one of the earliest mechanically cooled buildings in Sioux Falls. What type of refrigerant was used in the cooling system?

## The 2016-2017 South Dakota Chapter ASHRAE Line-up:

Sept 7	Noon	Jason Camarato, Greenheck <i>"Good Kitchen Design Principles"</i>
Oct 5	Noon	Alan Niles, WaterFurnace International (Distinguished Lecturer) <i>"Net-Energy Water Loops: a clear path to Net Zero Energy Buildings"</i>
Oct 21	ASHRAE Shootout	Hunter's Pointe, Humboldt. Sporting Clays and Lunch.

Nov 9	Afternoon Seminar	Douglas T. Reindl, PH.D., P.E., Univ. of Wisc.- Madison "ASHRAE Standard 15" (Distinguished Lecturer)
Nov 9	Evening	Douglas T. Reindl, PH.D., P.E., Univ. of Wisc.- Madison "Refrigeration – A Review & Update" (Distinguished Lecturer) Student Night
Dec 7	Noon	Ken Still, Critical Fuel Systems "Mission Critical Fuel Oil Systems"
Jan 11	Noon	Gordon Sharp, PE, Aircuity "New Approaches to Slash Commercial Building Energy Use and Improve IEQ" (Distinguished Lecturer)
Jan 11	Afternoon Seminar	Gordon Sharp, PE, Aircuity "A Holistic Overview of Technologies and Strategies To Achieve Deep Energy Reductions in Labs." (Distinguished Lecturer)
<b>Feb 17</b>	<b>Valentines Event</b>	<b>Olde Towne Dinner Theatre</b>
Mar 8	Noon	Jeff Schmitt, City Planning & Zoning Official "Future of Sioux Falls Development"
April 5	Afternoon Seminar	Bruce Hunn, Ph.D "Best Practice for Evaluating and Improving the Performance of Commercial Buildings." (Distinguished Lecturer)
April 5	Evening	Bruce Hunn, Ph.D "Best Practice for Evaluating and Improving the Performance of Commercial Buildings." (Distinguished Lecturer)  Student Night and Past Presidents Night
April 21	12:00-3:00pm	ASHRAE Sponsored Webcast "Integrating Control Technology & Analytics for Optimal Building Performance"
May 26		Golf – Brandon Golf Course

# The Benefits of an ASHRAE Certification

## SHINE IN A RISING FIELD

Certification validates critical job knowledge, skills and abilities in a given practice area.

## GAIN A COMPETITIVE EDGE

ASHRAE certifications are recognized by over 30 national, state and municipal entities.

## DISTINGUISH YOURSELF

Use the ASHRAE Certified logo and designation—e.g. Curtis Smith, BEAP, BEMP—in email signatures, professional networking and business cards to enhance your reputation.

## LET ASHRAE PROMOTE YOUR ACHIEVEMENT

Certificants and their employers are listed on the website and in *ASHRAE Insights*.



# 5 Easy Steps to Earn and Maintain an ASHRAE Certification

## 1. Read the *Candidate Guidebook*

Visit [www.ashrae.org/certification](http://www.ashrae.org/certification) and download the guidebook for the program in which you are interested.

## 2. Complete the Application

Complete the online application at [www.ashrae.org/certification](http://www.ashrae.org/certification). Membership in ASHRAE is not a requirement for certification.

## 3. Schedule an Examination

BCxP, BEAP, BEMP, HBBDP, HFDP and OPMP examinations are offered at over 300 conveniently located computer-based testing centers worldwide. Candidates may schedule an examination appointment online or by telephone.

## 4. Review Available Resources

The *Candidate Guidebook* for a program identifies available resources, including practice exams, that may help candidates gain an understanding of the body of knowledge that the examination tests. Purchase of books or course registrations is not a prerequisite to taking any ASHRAE certification examination.

## 5. Renew the Certification

Each certification is renewable every three years. To retain certification, each certification holder must earn 45\* Professional Development Hours (PDHs) during the three year period following initial certification or the last renewal.

\*BCxP requires 50 PDHs.

Schedule an exam at one of over **300 testing centers** worldwide  
**TODAY!**

To learn more or apply, please go to  
[www.ashrae.org/certification](http://www.ashrae.org/certification)

# ASHRAE Certification

More than 2,500 professionals certified in six key built-environment fields.

## Are You Ready to Join Them?



**Validation. Pride. Recognition.**

*"Because of the high level of expertise, professionalism and ethics demonstrated by ASHRAE, achieving certification under their established requirements implies one of the highest levels of competence and knowledge available in the industry."*

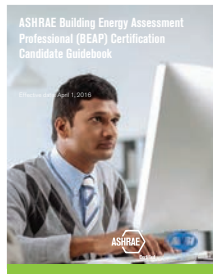
**Jeffrey G Ross-Bain, BEMP, Ross-Bain Green Building, LLC**



ASHRAE, the standard setter for sustainable building performance and system design and operation, validates through certification the critical knowledge, skills and abilities of professionals in six key, built-environment fields.

Recognized by over 30 national, state and local government bodies – and with over 2,500 certifications earned – ASHRAE certifications increasingly have become the must-have credential for built-environment professionals.

## Building Energy Assessment Professional (BEAP)

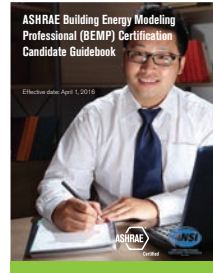


The growing emphasis on energy consumption reduction and cost savings has highlighted the need for credible specialists who assess energy use in buildings. The BEAP certification validates competency to *audit, assess and analyze residential, commercial and industrial building energy use and develop and implement recommendations.*

The BEAP certification is integral to ASHRAE's Building Energy Quotient (BuildingEQ) program, as is its BEMP certification.

Together, the programs provide a valuable toolkit when it comes to the evaluation and reduction of building energy use. Two separate Workbooks, As Designed and In Operation, are part of the BuildingEQ program. Submitting both of these Workbooks can earn an As Designed and In Operation building rating. Only those certified as BEAPs, or Professional Engineers licensed in the jurisdiction where a BuildingEQ project is located, may submit the In Operation Workbook. Additionally, only BEAPs (and BEMPs whose certification relates to the As Designed Workbook) may display the BuildingEQ Certified Provider logo with descriptions of their services.

## Building Energy Modeling Professional (BEMP)



The BEMP certification validates competency to *evaluate, select, implement, calibrate and interpret the results of energy modeling software when applied to new and existing building and systems energy performance.*

The BEMP certification complements ASHRAE's Building Energy Quotient (BuildingEQ) program by helping to ensure that only qualified practitioners can submit As Designed Workbooks to receive building ratings from ASHRAE. Only those certified as BEMPs, and Professional Engineers licensed in the jurisdiction where a BuildingEQ project is located, may submit the As Designed Workbooks to ASHRAE. Like BEAPs who may submit In Operation BuildingEQ Workbooks, BEMPs may display the BuildingEQ Certified Provider logo with descriptions of their services.

## Building Commissioning Professional (BCxP)



The BCxP certification validates competency to *lead, plan, coordinate and manage a commissioning team to implement commissioning processes in new and existing buildings.*

Many building owners look for ways to lower energy bills, reduce change orders during construction, avoid premature equipment replacement costs, and create safer and healthier buildings. Building commissioning measures and tunes up performance of existing buildings and ensures that new buildings begin their lifecycle at optimal productivity.

## High-Performance Building Design Professional (HBDP)



The HBDP certification, an ANSI accredited certification program, validates competency to *design and integrate sustainable HVAC&R systems into high performing buildings.*

Today's building design market requires use of ground-breaking technologies in new and existing structures to meet the need of building owners.

## Healthcare Facility Design Professional (HFDP)



The HFDP certification validates competency to *incorporate standards, guidelines and regulatory codes as well as unique healthcare facility requirements and design principles in HVAC system design.*

Growing numbers of aging medical facilities, advances in technology, shifting environmental requirements and an increasingly older population have created a critical need for expansion and renovation of healthcare facilities.

## Operations & Performance Management Professional (OPMP)



The OPMP certification validates competency to *manage facility operations and maintenance to achieve building performance goals, including those related to indoor environmental quality, health and safety.*

Today's complex buildings can fade from green to gray when building operators don't realize the full potential of the systems they manage. Staying current with the latest facility operation strategies and technologies can reduce energy use in buildings by 10% to 40%.

## Value of Earning Your ASHRAE Certification

In a recent "Value of Certification" survey, this is what ASHRAE-certified professionals had to say:

- *ASHRAE Certification validates my level of specialized knowledge and ability (89%).*
- *ASHRAE Certification helps differentiate me from my peers (82%).*
- *In my field, ASHRAE Certification has provided me with greater professional recognition (73%).*

# ASHRAE Learning Institute

## 2017 Online Course Series

### 2 WAYS TO REGISTER

**Internet:** [www.ashrae.org/onlinecourses](http://www.ashrae.org/onlinecourses)

**Phone:** Call 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)

One-part course (3 hours) **\$284 (\$219 ASHRAE Member)** – -- -- Two-part course (6 hours) **\$484 (\$359 ASHRAE Member)**

#### Basics of High-Performance Building Design

Wednesday, February 8, 2017 – 1:00 p.m. to 4:00 p.m.

#### Designing Toward Net-Zero Energy Commercial Buildings

Tuesday, February 14, 2017 – 1:00 p.m. to 4:00 p.m.

#### ASHRAE Guideline 0: The Commissioning Process

Tuesday, February 21, 2017 – 1:00 p.m. to 4:00 p.m.

#### Commissioning Process & ASHRAE Standard 202

Monday, February 27, 2017 – 1:00 p.m. to 4:00 p.m.

#### **NEW!** Fundamental Requirements of Standard 62.1-2016

Thursday, March 9, 2017 – 1:00 p.m. to 4:00 p.m.

#### Commissioning Process in New and Existing Buildings

Part I: Monday, March 13, 2017 – 1:00 p.m. to 4:00 p.m.

Part II: Wednesday, March 15, 2017 – 1:00 p.m. to 4:00 p.m.

#### Design of Affordable & Efficient Ground Source Heat Pump Systems

Wednesday, March 29, 2017 – 1:00 p.m. to 4:00 p.m.

#### **NEW!** Complying with Standard 90.1-2016: Envelope/Lighting

Wednesday, April 5, 2017 – 1:00 p.m. to 4:00 p.m.

#### **NEW!** Complying with Standard 90.1-2016: HVAC/Mechanical

Tuesday, April 11, 2017 – 1:00 p.m. to 4:00 p.m.

#### **NEW!** Complying with Standard 90.1-2016: Appendix G

Tuesday, April 18, 2017 – 1:00 p.m. to 4:00 p.m.

#### Air-to-Air Energy Recovery Fundamentals

Wednesday, May 3, 2017 – 1:00 p.m. to 4:00 p.m.

#### Air-to-Air Energy Recovery Applications: Best Practices

Tuesday, May 9, 2017 – 1:00 p.m. to 4:00 p.m.

#### Humidity Control: Basic Principles, Loads and Equipment

Tuesday, June 13, 2017 – 1:00 p.m. to 4:00 p.m.

#### Humidity Control: Applications, Control Levels and Mold Avoidance

Tuesday, June 20, 2017 – 1:00 p.m. to 4:00 p.m.

#### **NEW!** New ASHRAE-Classified Refrigerants to Meet Society's Changing Needs

Tuesday, July 11, 2017 – 1:00 p.m. to 4:00 p.m.

#### Advanced High-Performance Building Design

Wednesday, August 9, 2017 – 1:00 p.m. to 4:00 p.m.

#### **NEW!** Fundamental Requirements of Standard 62.1-2016

Wednesday, September 6, 2017 – 1:00 p.m. to 4:00 p.m.

#### Designing High-Performance Healthcare HVAC Systems

Tuesday, September 19, 2017 – 1:00 p.m. to 4:00 p.m.

#### Laboratory Design: The Basics and Beyond

Tuesday, October 10, 2017 – 1:00 p.m. to 4:00 p.m.

#### Introduction to Ultraviolet Germicidal Irradiation (UVGI) Systems

Monday, October 16, 2017 – 1:00 p.m. to 4:00 p.m.

#### **NEW!** Complying with Standard 90.1-2016

Part I: Wednesday, November 1, 2017 – 1:00 p.m. to 4:00 p.m.

Part II: Tuesday, November 7, 2017 – 1:00 p.m. to 4:00 p.m.

#### **NEW!** New ASHRAE-Classified Refrigerants to Meet Society's Changing Needs

Tuesday, December 5, 2017 – 1:00 p.m. to 4:00 p.m.

## ASHRAE HVAC Design Training

2 Courses, 5 Days of Intense Instruction

Atlanta • Dallas • Doha • Hartford • Toronto

### **HVAC Design: Level I – Essentials** - Registration is \$1,264 (\$1,009 ASHRAE Member)

Gain practical skills and knowledge in designing and maintaining HVAC systems that can be put to immediate use. The training provides real-world examples of HVAC systems, including calculations of heating and cooling loads, ventilation and diffuser selection using the newly renovated ASHRAE Headquarters building as a living lab.

### **HVAC Design: Level II – Applications** - Registration is \$854 (\$699 ASHRAE Member)

*HVAC Design: Level II — Applications* provides instruction on HVAC system design for experienced HVAC designers and those who complete the HVAC Design: Level I – Essentials training. The training provides information that allows practicing engineers and designers an opportunity to expand their exposure to HVAC systems design procedures for a better understanding of system options to save energy.

Visit [www.ashrae.org/hvactraining](http://www.ashrae.org/hvactraining) to register and learn how your Chapter can earn PAOE points.

Contact Karen Murray ([kmurray@ashrae.org](mailto:kmurray@ashrae.org)) to discuss scheduling ASHRAE HVAC Training in your Chapter area.