

September 2019  
Volume 55, Issue 1

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**COSTS \***

Fees are based on online reservations and prepayment.

Philadelphia Chapter  
Members:

**\$30**

ASHRAE Society Members -  
Non-Chapter Members and  
Joint Society (ASPE, AIA, etc)

Members :

**\$40**

ASHRAE Life Members  
And Code Officials:

**No Charge**

Non- ASHRAE Member  
Or Guest:

**\$50**

YEA Member (35 & under):

**\$25**

Student Members:

**\$5**

Student Non-members:

**\$10**



# QUAKER CITY CLIMATE

**Thursday, September 12, 2019**

**Lunchtime Session**

**Pam Duffy, PE**

*presents*

**“Time Management for the Perpetually Busy Engineer”**

(See [page 4](#) for more information.)

***This session is a Membership Promotion Event!***

Current Philadelphia ASHRAE Chapter Members will receive a special gift for bringing a guest to the September session, if the guest joins ASHRAE and pays the Philadelphia Chapter dues. The new Chapter Member's meal will be complimentary. Limited to 10 members, first come.

**There will be a door prize!**

**[Click here](#) to Register**

**Please register by Monday, September 9, 2019.**

**Space is limited to just 70 attendees. Register today!**

**Noon to 2:00 PM**

Registration 11:45 AM - 12:20 PM

Food Service 12:25 PM - 12:55 PM

*A cash bar will be available.*

Presentation begins promptly at 12:55 PM

**LOCATION**

Fogo de Chão Brazilian Steakhouse

1337 Chestnut Street

Philadelphia, PA 19107

<https://fogodechao.com/location/philadelphia>

**\*Note that Philadelphia Chapter Membership Dues are \$35/year.**

To receive discounts and FREE seminars, please remit your Chapter dues when renewing online or applying for a new membership. Feel free to contact Hope Silverman at [hope@mmco1.com](mailto:hope@mmco1.com), who can accept payment and update the Society.

2019-2020

President

Michael Calabrese, PE

President-Elect

Tim Reinking

Vice President

Eric Feinschil

Treasurer

Judd Vail

Secretary

Dan Brown

Senior Governor

Mike Radio, PE

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Sean Hughes, PE

Mike Magee

Electronic Communications

Anthony Scaccia, PE

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Transfer Committee Chair

Brian Stehman

Research Promotion Chair

Gary Debes

Basic School Coordinator

James Lill, PE

Refrigeration

Hasanaat Prophete

Membership Promotion Chair

Nathanael Carleton

Student Activities Chair

Noreshvarman Manisagar

Program Committee Chair

Tim Reinking

Chapter Historian

Sean Hughes

Young Engineers in ASHRAE

Tyler Holland

Publicity

Michael Calabrese, PE

Government Activities

Anthony Scaccia

Special Events

Tim Reinking

Honors and Awards Committee

Mike Radio, PE

Attendance

Nathan Ware

Reception

Robin Martin

Diversity in ASHRAE

Ashley Lester

## PRESIDENT'S MESSAGE

Greetings Chapter Members,

Welcome back as we have officially begun the 2019-2020 ASHRAE season. I would like to thank the 2018-2019 Board of Governors, lead by Michael Radio, for a successful year. This season we are stacked with Distinguished Lecturers, several Society Past Presidents and top-level industry leaders as presenters. Topics will be interesting, diverse and educational, with both technical and non-technical content. We will have a variety of breakfast, lunch and dinner sessions, tours and social events. Our schedule is packed for your benefit - take advantage!

This year, my goals are to **Educate, Strengthen & Praise** our Chapter's membership. We are offering our Chapter members no or low cost education and training, strengthening our Chapter membership body, and increasing volunteer participation. We need to increase our Chapter size from 900 members to more than 1,000. We must celebrate achievements, recognize our leaders, speakers, students and teachers, and praise our supporting companies, employers, donors and sponsors. We are extremely grateful and wish to thank them as they make our events possible.

We've had two large events since our summer break. In June, the Annual Conference was held in Kansas City. The technical and professional sessions, panels and presentations were engaging. The technical committees hold their semi-annual meetings at the conferences and are always looking for new volunteers. In August, the annual Region III Chapters' Regional Conference (CRC) was hosted by the Hampton Roads Chapter in Norfolk, Virginia, and was well attended by the eleven chapters within our mid-atlantic region. The CRC is an event where the Chapter leadership are trained to better serve you. Some highlights were our leaders winning several awards. Anthony Scaccia's Government Activities work surpassed anyone in our region. Research Promotion Chair, Gary Debes, won the Region III "Pit Bull" Award.

September is a professional development session and we are honored to have Pam Duffy as our guest speaker. Pam is a captivating ASHRAE Distinguished Lecturer (DL) who recently presented at the KC conference. This will be a great session. Time is finite and time management is a key skill which benefits our employers, clients and quality of life.

Lastly, I hope everyone has received their copy of the 2019-2020 Philadelphia Area Directory. We appreciate the advertising support since our Chapter members utilize this publication daily. While reviewing our Directory, I had an idea...looking towards the future, the Chapter will be investigating the development of an app for the Chapter and our Directory. Similar to the ASHRAE 365 app, it will enhance our members' experience and provide dynamic content suitable for the 21<sup>st</sup> century. Our production cost will decrease and increase the Chapter revenue to fund our programs. This will take time to develop, so expect updates as we progress. We will certainly save trees! We look forward to seeing you on September 12<sup>th</sup> at Fogo de Chao. Please register quickly since our space is limited to 70 guests.

**Michael Calabrese, PE**  
Philadelphia Chapter President  
[c021@ashrae.net](mailto:c021@ashrae.net)



*2019 Annual Conference in Kansas City - Region 3 Dinner*



[Click here](#) for info!

2020 ASHRAE Winter Conference  
& AHR Expo

**Congratulations!**  
100 Years of Progress Through Partnership  
The Sheet Metal Contractors Association  
of Philadelphia and Vicinity



**Mark Your Calendar!**  
**Engineers' Night**  
**October 3, 2019**  
**Crystal Tea Room**

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## **September Meeting Presentation**

**September 12, 2019**

### **Speaker Bio**

**Pam Duffy, PE** has over 10 years of experience in the HVAC industry. She has a mechanical engineering degree from the University of Central Florida and is a licensed P.E.

Pam is most well-known for bringing new HVAC products to life. As a seasoned product manager, Pam has been responsible for strategic direction, product roadmaps, new product development, launches and sunsets, and ongoing product category support.

Pam serves on many boards and committees in ASHRAE. She says her greatest ASHRAE achievement was winning the Chapter of the Year award after serving as President of the Atlanta Chapter in 2013-2014. Pam currently serves on the Electronic Communications Committee (ECC) and is a member of several Technical Committees.

Outside of ASHRAE, Pam is a Life Member of the Society of Women Engineers (SWE) and has been named to both the Consulting-Specifying Engineer's list of 40 under 40 as well as the NEWS' 40 under 40.



[www.pamduffy.com](http://www.pamduffy.com)  
[pam.duffy.ashrae@gmail.com](mailto:pam.duffy.ashrae@gmail.com)

### **Abstract**

#### **“Time Management for the Perpetually Busy Engineer”**

If you have a never-ending to-do list, an inbox that's never empty, or a calendar that's jammed with meetings...this session is for you. Most of us don't prioritize our time well, and as a result we confuse urgent priorities with unimportant reminders or basic tasks. This can lead to procrastination on the most important work we have on our plate. In this session, we'll talk about various methods to manage your inbox, keep your to-do list organized, and be more productive.

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### **Government Activities Committee (GA) Updates**

Hello, I'm Anthony Scaccia. This year I'll be returning as the Philadelphia Chapter's Government Activities Chair, and have joined the Board of Governors. I'm looking to build on last year's efforts and have a strong year for ASHRAE. This will be a busy year for government advocacy in the Philadelphia chapter, we will be participating in multiple government outreach events, training sessions, call-a-thons, and codes coalitions meetings. Planning for New Jersey's Day on the Hill is upcoming, so I would encourage anyone interested in helping to reach out at [c021ggac@ashrae.net](mailto:c021ggac@ashrae.net).

#### **Triennial 2018 International Codes Public Comment Period:**

The Department of Labor and Industry is seeking public comment on the 2018 International Code Council codes. The public comment period will open on Thursday, June 13, 2019, and last 120 days, closing on Thursday, October 10, 2019.

See links below to submit your concerns to the Department of L&I.

<https://appengine.egov.com/apps/pa/DLI/RACandTACPublicCommentForm>

<https://www.dli.pa.gov/ucc/Pages/UCC-Review-and-Advisory-Council.aspx>

Anthony Scaccia  
Chair, Government Activities Committee  
[c021ggac@ashrae.net](mailto:c021ggac@ashrae.net)



## Young Engineers in ASHRAE (YEA) Committee Updates

Hi! My name is Tyler and I am the YEA Committee Chair for the Philadelphia Chapter. YEA encourages young engineers 35 and under to get involved with ASHRAE and develop future membership and leadership in ASHRAE and the HVAC/R industry. We have an exciting year of social events and technical sessions lined up, so be sure to check out the monthly "*Climate*" newsletters for more information as the dates approach. If you or someone you know would like to get involved, please reach out to me so I can be sure to include you/them on the invites. We have a free social event planned with YEA and students on September 19th at North Bowl. I look forward to meeting everyone and to a great year!



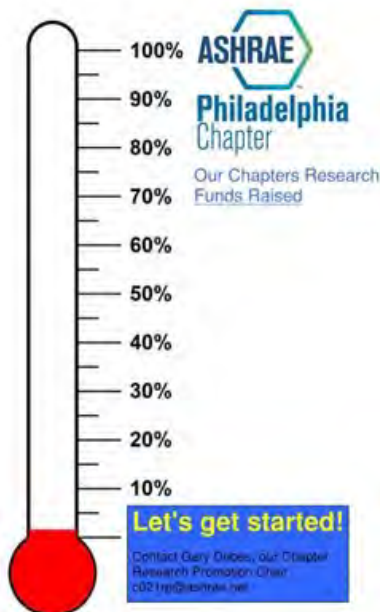
I look forward to meeting everyone and to a great year!

Tyler A. Holland  
[c021yea@ashrae.net](mailto:c021yea@ashrae.net)  
M: (303) 552-1226

## Student Activities Committee (SA) Updates

Hello. My name is Noreshvarman Manisagar. I am the new Student Activities Chair for the Philadelphia ASHRAE Chapter. I am looking to continue the efforts and the mission of the society to further increase the participation of future industry leaders around our metropolitan region in the HVAC industry. Besides supporting the active student chapters, I will focus my efforts on re-activating the inactive chapters and providing a common medium for cross-chapter collaborations both within the region and across the region. This will include a mix of professional events, mentor-mentee pair up, student design competitions and social events. We will also be working with other professional bodies around the region for joint events as part of our outreach effort which will be unveiled in the coming months. I would encourage anyone interested in helping organize events for both higher education and K-12 to contact me. We have a free social event planned in combination with YEA on September 19th at North Bowl. I look forward to meeting everyone there!

Noreshvarman Manisagar  
Chair, Chapter Student Activities Committee  
[c021sac@ashrae.net](mailto:c021sac@ashrae.net)



**The Chapter is seeking sponsors for our Student Activities Social(s). Please email the Chapter Chair, Noresh Manisagar ([c021sac@ashrae.net](mailto:c021sac@ashrae.net)) or the Chapter President ([c021@ashrae.net](mailto:c021@ashrae.net)) for more information.**

## **The New 2019-2020 Directory is Available!**

The latest edition of the Directory of Associations, Consulting Firms, and Manufacturers' Representatives in the Philadelphia Area is now available. It sells for \$23 each.

Send your check to ASHRAE, 994 Old Eagle School Road, Suite 1019, Wayne, PA 19087. If you prefer to pay by credit card, please call Hope at 610-971-2169 or email her at [hope@mmco1.com](mailto:hope@mmco1.com).

## PHILADELPHIA CHAPTER PROGRAMS CALENDAR 2019-2020

Date	Time	Venue	Session / Topic	Theme
Thursday, September 12, 2019	<b>11:45am - 12:20pm Registration</b> 12:25pm - 12:55pm Lunch 12:55pm - 2pm Presentation	<b>Fogo de Chão</b> 1337 Chestnut St. Phila, PA 19107	<b>"Time Management for the Perpetually Busy Engineer"</b> by Pam Duffy, an ASHRAE Distinguished Lecturer (DL)	-Membership Promotion - <i>Bring a new Chapter Member, Win a Prize, and their registration fee is waived</i> -Diversity in ASHRAE
Thursday, September 19, 2019	6pm - 8pm	North Bowl	Bowling Social	-Young Engineers in ASHRAE (YEA) & Student Activities Event (Social)
Thursday, October 03, 2019	5pm - 8pm	Crystal Tea Room	ASHRAE-SMCAs "Engineers' Night" "Topic TBD"	-SMCA Scholarship, Student Activities
Thursday, October 10, 2019	11:45am - 12:15pm Registration 12:15pm - 12:40pm Lunch 12:45pm - 2pm Presentation	World Café Live (Downstairs)	"HVAC Design Considerations for Indoor Plant Cultivations Facilities" - Nadia Sabeh, aka Dr. Greenhouse -	-Young Engineers in ASHRAE (YEA) -Student Activities
Thursday, October 17, 2019	11am - 6pm	Clarion Hotel Philadelphia Airport	Joint Event: ASPE Technical Symposium & Products Show	-FREE Technical Seminars & -Vendor Show
Thursday, November 14, 2019	11:45am - 12:15pm Registration 12:15pm - 12:40pm Lunch 12:45pm - 2pm Presentation	Del Frisco's The Vault	"Targeting Success – Improve Employee Satisfaction, and Profit" - Julia Keen, an ASHRAE Distinguished Lecturer (DL) -	-Diversity in ASHRAE -Employers
Thursday, November 14, 2019	TBD	TBD	Seminar "TBD" - Julia Keen -	-Diversity in ASHRAE Event (Discussion-Social)
Thursday, November 21, 2019	TBD	TBD	TBD	-Young Engineers in ASHRAE (YEA) Event (Social)
Friday, November 22, 2019	TBD	TBD	TBD	-Student Event (Social)
Friday, December 06, 2019	TBD	Burns Engineering	"CTTC: Codes and Standards Seminar" - Larry Spielvogel and Associates -	-FREE Seminar for Chapter Members
Wednesday, December 11, 2019	7am - 7:30am Registration 7:30am - 8am Breakfast 8am - 9am Presentation	The Union League McMichael Room	"Variable Primary Flow Hydronic Systems" - Bill Bahnfleth, Society Past President and Distinguished Lecturer (DL) -	-Employer Recognition -Research Promotion Donor Appreciation
Wednesday, January 08, 2020	11:45am - 12:15pm Registration 12:15pm - 12:40pm Lunch 12:45pm - 2pm Presentation	World Café Live	"Integrating Renewable Energy Systems into Buildings" - Sheila Hayter, Society Past President and Distinguished Lecturer (DL) -	-Diversity in ASHRAE -Chapter History
Wednesday, January 08, 2020	6pm - 8pm	TBD	DIA Event	-Diversity in ASHRAE Event (Social)
Wednesday, January 15, 2020	7pm	Wells Fargo Center	Basketball Sixers vs Brooklyn Nets	-Social
Monday, February 3 thru Wednesday, February 5, 2020	-	Hilton Orlando	ASHRAE Winter Conference	-Student Activities
Thursday, February 13, 2020	TBD	Burns Engineering	"Seminar - TBA" - Ralph Kison -	-FREE Seminar for Chapter Members
Thursday, February 13, 2020	TBD	Yards Brewery	Brewery & Refrigeration Plant Tour	Tour
Thursday, February 13, 2020	5pm - 8pm	Yards Brewery	"Mentor-Mentee Relationship" - Ralph Kison -	-Research Promotion Night -Membership Promotion Night -Student Activities, Scholarship Awards -Young Engineers in ASHRAE (YEA) -SMCA
Thursday, March 12, 2020	5pm - 8pm	TBD	TBD - ASHRAE Distinguished Lecturer (DL) -	-President Boyce Visit -Employer Recognition -Research Promotion Donor Appreciation
Thursday, April 09, 2020	5pm - 8pm	TBD	TBD - ASHRAE Distinguished Lecturer (DL) -	-Government Activities (GA)
Friday, April 10, 2020	TBD	Philly Wholesale Produce Market	Food Warehouse	Refrigeration Tour
Thursday, April 23, 2020	TBD	TBD	TBD	-Young Engineers in ASHRAE (YEA) & Student Activities Event (Social)
Thursday, May 14, 2020	5pm - 8pm	TBD	"Building Science"	-Government Activities (GA) -Past-Presidents Night
Monday, May 18, 2020	11am - 7pm	DuPont CC	Annual Golf Outing	Social Event
TBD	-	Citizens Bank Park	Baseball Phillies vs. TBD	Social Event
Thursday, August 13 thru Saturday, August 15, 2020	-	Washington DC Key Bridge Marriott	Region 3: Chapters Regional Conference (CRC) - Hosted by the National Capital Chapter -	Membership Training

**Region III Chapters' Regional Conference (CRC) Photos**

August 17, 2019

Norfolk, VA



Jim Piscopo received the Regional Award of Merit. Additionally, he accepted for Bob Finkboner, Steve Piccolo and Michael Witkowski who have all received the Award for their service and commitment to ASHRAE.



Gary Debes received the Research Promotion Top Dog Award for his outstanding achievements in 2018-2019.



Michael Calabrese accepted the Government Activities Majority Whip Award for Anthony Scaccia.



Michael Radio received the Award for PAOE Sustainability and a Special Citation for Chapter Operations.

**2019-2020 ASHRAE Basic HVAC Design Course**See [page 12](#) for more information!

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## ***Note from the Chapter Technology Transfer Committee (CTTC):***

ASHRAE Standard 170 defines nearly every aspect of critical healthcare design. In 2016, ASHRAE contracted Clemson University, University of Nebraska, and AEI to perform a meticulous review of 170-2013 to assess the relevance and scientific underpinning for all 886 requirements defined in the standard. Although their report does not include many bombshell revelations, it is an interesting read that addresses the origins of each requirement, their relative importance in the scheme of healthcare design goals, and illuminates the inherent uncertainty of the empirical and theoretical evidence that defines our assumptions around healthcare design.

Brian N. Stehman  
CTTC  
[bstehman@tristatehvac.com](mailto:bstehman@tristatehvac.com)

### **Academic Research to Support Facility Guidelines – Standard 170**

#### **ASHRAE Research Report, Published May 2019**

The purpose of this study was to conduct a review of ANSI/ASHE/ASHRAE Standard 170-2013 – *Ventilation of Healthcare Facilities* to determine whether the 886 requirements defined in the Standard (Part 4 of the FGI Guidelines) are supported by engineering and (or) scientific evidence. This process began by assembling each of the requirements into a comprehensive spreadsheet (Appendix A). From this, the authors and the Project Monitoring Subcommittee (PMS) assigned these requirements into one of three (3) categories: Rational inclusion defines requirements that fall under practical engineering or life-safety requirements; Clinical inclusion defines requirements that support clinical practices; Evidence-based inclusion defines those remaining requirements that are supported by published scientific literature.

Full report here <<https://technologyportal.ashrae.org/Report/Detail/707>>

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### **ASHRAE Philadelphia Corporate Sponsorships Available**

**The Philadelphia Chapter invites your company to join as a Corporate Sponsor for the 2019-2020 year.** Your firm's participation in this program would enable us to make a donation to ASHRAE Research Promotion which includes over \$1.5 million in local research funding.

Corporate Sponsors are listed on our web site, in our newsletter, and in our annual directory. They receive free copies of our directory and recognition at all of our events. With the ease of one payment, you may get all this, as well as free dinner tickets good for our monthly meetings, and make a valuable contribution to ASHRAE Research at the same time.

If you are interested, please email us at [philachapter@mail.ashrae.org](mailto:philachapter@mail.ashrae.org). The Board of Governors thanks you for your continued support of ASHRAE.

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### **We need your attendance!**

If we are below our guaranteed level for attendees at our meetings, our treasury could be negatively effected. Our programs are designed around the membership's input and we all need to support these meetings to maintain a strong/informed association. We hope to see you at our next meeting. Please come out and support our Chapter!

*The program calendar on [page 6](#) is tentative and subject to change.  
Please refer to [ASHRAE Philadelphia website](#) for up to date information.  
Advance registration and pre-payment are required before the meetings.*





20<sup>th</sup> Biennial

# Plumbing Trade Exhibition & Technical Symposium

**Open To All Professional Trades**

**Mechanical/Plumbing Contractors, Engineers, Designers,  
Maintenance Engineers & Facilities Managers**

**Thursday - October 17<sup>th</sup> 2019  
10 am to 6 pm**

**The Clarion Hotel & Conference Center**  
Formerly The Ramada Inn  
**76 Industrial Highway, Essington, PA 19029**

**The CTT Committee from the  
Philadelphia Chapter of ASHRAE will be holding  
4 technical sessions at the event.**

**Topics include -  
Pumping, Water Quality, Steam and Boilers.**

**A total of \$2,500 in door prizes will be awarded at the show starting at 3pm.  
Winners must be present with registration and or Symposium Tickets**

**Serving The Delaware Valley & Surrounding States**

# American Society of Plumbing Engineers Philadelphia Chapter



**Technical Symposium  
October 17<sup>th</sup>, 2019  
Clarion Hotel and Conference Center  
76 Industrial Highway  
Essington, Pa. 19029**

## **Symposium Class Topics**

**11:00 AM Plumbing Hydraulics and Pumps  
David Strunk, PE - Strunk-Albert Engineering**

**1:00 PM Plumbing Design in High Rise Buildings  
Drew McFadden, CPD – Alderson Engineering**

**3:00 PM Intro to the New Philadelphia Plumbing Code  
Walt Krzyzanowski – Philadelphia Plumbing Advisory Board**

**Register on-line at [www.aspephila.org](http://www.aspephila.org)**

For additional information contact Steve Ziga at [sziga@hpegroup.com](mailto:sziga@hpegroup.com)

**Philadelphia Chapter Plumbing Education Program**



**Please Note: ASHRAE technical programs will be released shortly.  
ASHRAE members should register using the ASPE website, [www.aspephila.org](http://www.aspephila.org).  
This event is free to our Philadelphia Chapter Membership.**



The Philadelphia Chapter  
of the  
American Society of Heating,  
Refrigerating and Air  
Conditioning Engineers, Inc.

994 Old Eagle School Road  
Suite 1019  
Wayne, PA 19087-1866  
P 610-971-2169  
F 610-971-4859

Visit  
our web site at:

[www.ashraephilly.org](http://www.ashraephilly.org)

Republication of material  
contained herein is expressly  
forbidden without official Chapter  
authorization. The Chapter does  
not speak or act for the Society.

Any member with material to  
submit for inclusion in the  
*Climate* can send the information  
to:

Hope Silverman  
P 610-971-2169  
[hope@mmco1.com](mailto:hope@mmco1.com)

Material can include letters to the  
editor, member news, upcoming  
events, comments on chapter  
programs or issues, etc.

## **New Philadelphia Chapter Members since July 2019**

Hamid Heravi	Chad Jackson
Edward Vergiza	David Coffman
Lan Tomasi	Andrew Bowden
Kamlesh Shah	Mohammad Mustafa
Joseph Compton	Jon R Ernst
Alex Bosco	Brian Scheidemann
Moustafa Barakat	Justin Shemonsky
Kelly Sikkema	Joshua Lehman
Megan Gioffre	Dennis Potter
Nolan Bream	Daniel Chung
David Auciello	Eric Swiney
Adam Bitar	Francis Vadino Jr
John Sommer	Sean Frisco

## **What are the benefits of paying Philadelphia Chapter dues?**

- Session Discount, valued up to \$25 off
- Free Tech Seminars
- Free Code Seminar
- Members Resume posted on our webpage
- And much more . . .

Note that Philadelphia Chapter Membership Dues are \$35/year.

To receive discounts and FREE seminars, please remit you Chapter dues when renewing online or applying for a new membership. Feel free to contact Hope Silverman at [hope@mmco1.com](mailto:hope@mmco1.com), who can accept payment and update the Society.

## **Membership Advancement**

If you are currently an ASHRAE Associate Member, becoming a full Member is easier than you think! The following count toward the required **12 points** to advance to full membership status. You must update your ASHRAE online biography and send an email to [membership@ashrae.org](mailto:membership@ashrae.org) to advance.

Non-accredited degree = 4 points  
PE = 4 points

Accredited degree = 6 points  
Industry experience = 1 point/year

## **September Meeting - MEMBERSHIP PROMOTION SPECIAL!**

Current Philadelphia ASHRAE Chapter members will receive a special gift for bringing a guest to the September session, if the guest joins ASHRAE and pays the Philadelphia Chapter dues. The new Chapter Member's meal will be complimentary. Limited to 10 members, first come.

# ASHRAE – PHILADELPHIA CHAPTER

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND  
AIR-CONDITIONING ENGINEERS, INC. PHILADELPHIA CHAPTER

## **BASIC HVAC SYSTEM DESIGN COURSE**

This is a demanding one-year course that introduces students to the fundamentals of HVAC design. Classroom activities will include lectures and problem solving sessions, supplemented by home reading and study assignments.

### **2019-2020 Course Subjects Include:**

Fundamentals and Psychrometrics  
Load and Heat Transfer Fundamentals  
Load Calculations  
Pumps, Piping & Piping Systems  
Basic Steam & Boilers  
Fans, Air Distribution & Duct Design  
Refrigeration  
Controls & Instrumentation  
Equipment Selection

**The class is a great way to further, or even begin, a career in HVAC.**

Classes will meet Tuesdays and Thursdays from 6:15 PM to 8:30 PM beginning in October and continuing until the middle of March. Classes will be held at Burns Engineering, 2001 Market Street, in Center City Philadelphia. Students are responsible for transportation and parking costs.

The Basic Class tuition is \$1,200 (\$1,000 for ASHRAE Members who have paid both their National and Philadelphia Chapter dues). Tuition includes all course materials.

Class size is limited to 30 students. To enroll, complete and submit the application including a **non-refundable** deposit of \$200 payable to “Philadelphia Chapter ASHRAE”. Balance due at first course session.

If you would like to enroll or receive further information, please contact:

Hope Silverman  
Philadelphia Chapter ASHRAE  
994 Old Eagle School Road, Suite 1019  
Wayne, PA 19087-1866  
Phone 610-971-2169  
Fax 610-971-4859  
E-mail: [info@ashraephilly.org](mailto:info@ashraephilly.org)  
Web site: [www.ashraephilly.org](http://www.ashraephilly.org)



# Philadelphia Chapter ASHRAE

*American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.*

## Basic HVAC System Design Course Application 2019-2020

### Personal Information

Name: \_\_\_\_\_  
Last First Middle Initial

Home Address: \_\_\_\_\_  
Street City State Zip

Phone No.: \_\_\_\_\_ Application Date: \_\_\_\_\_

Email: \_\_\_\_\_

### Current or Most Recent Employment

Employer: \_\_\_\_\_ From: \_\_\_\_\_ To: \_\_\_\_\_ Total \_\_\_\_\_  
Firm Name Date Date Years

Business Address: \_\_\_\_\_  
Street City State Zip

Job Title: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Discipline: \_\_\_\_\_ Engineer \_\_\_\_\_ CAD/Designer \_\_\_\_\_ CAD/Drafting \_\_\_\_\_ Sales Rep \_\_\_\_\_ Trades \_\_\_\_\_ Administration

### Learning Goals

Please describe what you hope to learn and take away from this class.

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### Education

	School (Name & Location)	Years Attended	Major	Degree Or Diploma
High School	_____	_____	_____	_____
College	_____	_____	_____	_____
Other	_____	_____	_____	_____

PLEASE SEE REVERSE SIDE FOR PAYMENT

## **PAYMENT**

### **AMOUNT:**

**Members:** \_\_\_\_\_ \$200 Deposit \_\_\_\_\_ \$800 Balance Due \_\_\_\_\_ \$1,000 Total Fee

Members are those who have paid their ASHRAE National and Philadelphia Chapter Dues

**Non-Members:** \_\_\_\_\_ \$200 Deposit \_\_\_\_\_ \$1,000 Balance Due \_\_\_\_\_ \$1,200 Total Fee

*The balance due must be received by our office prior to the first evening of class.*

**PAYMENT BY CHECK:** \_\_\_\_\_ (made payable to "Philadelphia Chapter ASHRAE")

**PAYMENT BY CREDIT CARD:** \_\_\_\_\_ VISA \_\_\_\_\_ Master Card \_\_\_\_\_ American Express

Total Amount to be Billed to Card: \_\_\_\_\_

Credit Card Number: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Name on Card (please print): \_\_\_\_\_

Billing Address for Card: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

RETURN THIS FORM WITH PAYMENT TO:

Hope Silverman  
Philadelphia Chapter ASHRAE  
994 Old Eagle School Road  
Suite 1019  
Wayne, PA 19087-1866  
Phone 610-971-2169  
Fax 610-971-4859  
[info@ashraephilly.org](mailto:info@ashraephilly.org)

---

### **For Official Use Only**

Date Received: \_\_\_\_\_ Tuition: \_\_\_\_\_ Deposit: \_\_\_\_\_ Check No.: \_\_\_\_\_ Balance: \_\_\_\_\_