



**MINUTES**  
**EXECUTIVE COMMITTEE MEETING**

**Wednesday, August 31, 2022**

**Approved by the Executive Committee on February 4, 2023.**

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Wednesday, August 31, 2022

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**PRINCIPAL APPROVED MOTIONS**

Executive Committee Meeting

Wednesday, August 31, 2022

<b>No. - Pg.</b>	<b>Motion</b>
1 - 2	The executive committee minutes from June 25 and 29, 2022 and June 30, 2022 be approved.
2 – 5	ExCom recommend that the MOU with the UAE Ministry of Energy be approved by the BOD.
3 - 7	ExCom recommend the proposed new Toronto Chapter scholarship be approved by the BOD.
5 – 8	ExCom recommend to the BOD that ASHRAE sign on as a supporting organization of the Carbon Leadership Forum MEP 2040 Challenge.

## ACTION ITEMS

Executive Committee Meeting  
Wednesday, August 31, 2022

No. - Pg.	Responsibility	Summary of Action	Status	Goal Date
1 - 2	Reiniche	Explore options for working with ICC to adopt ASHRAE Standard 169, <i>Climatic Data for Building Design Standards</i> . (Carryover from Fall 2021 Leadership Meeting)		
2 - 2	Littleton	Work on a better MOU with CAR. (Carryover from June 22 and 30, 2020)		Winter 2023
3 - 2	Maston, Rekheja, and Reiniche	Work with the Standards Committee to develop and present a plan for pathogen mitigation to ExCom by the July 2 <sup>nd</sup> meeting. (Carryover from June 3, 2021)		
4 - 2	Maston and Rakheja	Synthesize the work with Tech Council and the Standards Committee to strategically evaluate the current standards development process. Pub and Ed Council should be involved as appropriate. (Carryover from November 18, 2021)		
5 - 2	Littleton	Create a draft document with MOU metrics for ExCom review and consideration. (Carryover from January 29, February 2 and 3, 2022)		
6 - 2	Littleton	Send recommendations on the IEA-EBC work plan to Mr. Mehboob for review. (Carryover from March 17, 2022)		
7 - 2	Mehboob	Put together a group to develop a process for how Society considers new MOUs and work plans moving forward. (Carryover from April 12, 2022)		
8 - 2	Littleton	Review GCC MOU language to ensure Society's copyright and interests are protected. Provide a draft MOU for ExCom's consideration at the next meeting. (Carryover from June 30, 2022)		August 2022
9 - 2	Maston	Discuss with RAC the possible research project with the UAE Ministry of Energy and request feedback. Bring that feedback to ExCom for further consideration. (Carryover from June 30, 2022)		
10 - 2	Littleton	Discuss with Kent Peterson the possible MOU with the UAE Ministry of Energy and request feedback. Bring that feedback to ExCom for further consideration. (Carryover from June 30, 2022)		
11 - 4	Macauley	Draft a policy for the selection and review of ALI instructors. He will also gather information on HVAC Level I and II (or any other courses which earn significant income) – when was the course developed, who developed the course, and how much was paid to		

		instructors on an annual basis. Information should be collected and reviewed for 2012 through 2022.		
12 – 6	Littleton	Develop a draft template for MOUs with AASA members and coordinate with AASA Chair, Sheila Hayter, for review and input.		
13 – 7	Littleton	Confirm consultant transportation reimbursement policy with RAC. Once confirmed, staff liaisons will communicate that all appointed consultants have transportation reimbursement.		
14 – 7	ExCom	Send recommendations for who should attend conferences this Society Year to Ms. Scoggins by close of business on September 2 <sup>nd</sup> . Recommendations should be either third-year Directors, Presidential Members, or members of ExCom.		
15 – 8	Littleton	Send the conference attendance recommendation list to third-year Directors and ask if they have relationships, connections, or experience with organizations on the list and if they are interested in attending a conference this Society Year. Responses should be requested by close of business on September 2 <sup>nd</sup> .		



**MINUTES**  
**EXECUTIVE COMMITTEE MEETING**

Wednesday, August 31, 2022

**MEMBERS PRESENT:**

Farooq Mehboob, President  
Ginger Scoggins, President-Elect  
Dennis Knight, Treasurer  
Billy Austin, Vice President  
Dunstan Macauley, Vice President  
Sarah Maston, Vice President  
Ashish Rakheja, Vice President  
Jeff Littleton, Secretary

**GUESTS PRESENT:**

Steve Sill	Richie Mittal
Adrienne Thomle	Bryan Holcomb
Kishor Khankari	John Constantinide
Dru Crawley	Wade Conlan
Tim Wentz	Eileen Jensen
Jim Arnold	Susanna Hanson

**STAFF PRESENT:**

Candace DeVaughn, Manager - Board Services  
Chandrias Jolly, Assistant Manager - Board Services  
Joyce Abrams, Director - Member Services  
Vanita Gupta, Director - Marketing  
Kim Mitchell, Chief Development Officer  
Mark Owen, Director - Publications & Education  
Stephanie Reiniche, Director - Technology  
Alice Yates, Director - Government Affairs  
Craig Wright, Director of Finance

**CALL TO ORDER**

Mr. Mehboob called the meeting to order at 8:00 am.

**CODE OF ETHICS**

Mr. Mehboob read the code of ethics commitment and advised that the full code of ethics and core values statements are available online.

**ROLL CALL**

Roll call was conducted. Members, guests, and staff were in attendance as noted above.

**REVIEW OF MEETING AGENDA**

Mr. Mehboob reviewed the meeting agenda. 'Strategic Plan' was added to *New Business*.

**APPROVAL OF MINUTES**

Ms. Scoggins moved and Ms. Maston seconded that

1. The executive committee minutes from June 25 and 29, 2022 and June 30, 2022 be approved.

**MOTION 1 PASSED** (Unanimous Voice Vote, CNV).

**REVIEW OF ACTION ITEMS****JUNE 25 AND 29, 2022**

Action items 1-3, 5-7, and 9 were reported as ongoing. All other action items were reported as complete.

**AI – 1-7****JUNE 30, 2022**

Action items 1, 3 and 4 were reported as ongoing. All other action items were reported as complete

**AI – 8-10****ALI INSTRUCTOR**

Mr. Macauley reported that the way courses are selected is in the TEC Reference Manual (ATTACHMENT A). He reported that there are two paths for course selection – solicited and unsolicited courses.

Solicited courses are ones where the Training and Education Committee issue an RFP for a specific presentation on a specific topic. Unsolicited courses are those recommended from members or TCs. He reported that the majority of courses presented are unsolicited and most of the recommendations come from TCs.

He reported that the process is very transparent but there are opportunities to make some changes. He suggested that the process could be highlighted more online. He added that top performing courses could also be reviewed to see if there are additional opportunities to translate them into languages other than English.

Mr. Macauley suggested that when reviewing payments to members it needs to be considered that payments also include expenses, as ALI instructors receive full travel reimbursement. He expressed concern that sharing details on payments to members could hurt the program by eliminating Society's

competitive advantage; other organizations could use that information to price Society out of the market.

Mr. Macauley opened the floor to questions and comments.

Ms. Scoggins asked when terms are negotiated and if there is a standard rate for instructors. Mr. Macauley reported that if there is a single instructor for a three-hour course, the rate is \$800 and \$500 if there is more than one instructor. Fees for longer courses are negotiated on a case-by-case basis.

Mr. Khankari stated that he was curious about whether members of Society have equal opportunities to bid and participate in these courses. He expressed his opinion that there is one group of people that start teaching a course and teach it forever. Is there a regular review as part of the process? Are other members being solicited to participate?

Mr. Macauley responded that he used to teach a course and the process is under constant review, where feedback from attendees and relevance of course materials is reviewed. Every so often, a course goes through a blind review to ensure relevance.

He reported that the majority of courses are unsolicited courses, generally coming from the TCs. The TC will generally propose a course and work with the TC membership to develop the course; in that instance, the TC owns the course material. Non-solicited courses are open to all members and are posted on the website where any member has the right to bid on them.

He added that every member has the opportunity to put in a proposal for an unsolicited course. It was noted that this opportunity could be more widely highlighted so that members truly understand they can submit proposals for these opportunities.

Mr. Khankari expressed his opinion that there needs to be a procedure to find the most qualified candidates to teach courses. He stated his opinion that the perception is that the door is closed for others to teach on a similar process.

Mr. Macauley stated that Mr. Khankari's feedback will be shared with TEC and the Committee will have the opportunity to provide a final recommendation.

Mr. Rakheja expressed agreement with Mr. Khankari. He expressed his opinion that in the process of making improvements, need to be cautious to not put-up hurdles to courses that are running successfully. He encouraged a comprehensive review process.

Mr. Macauley stated that there is room for improvement. He reiterated that courses are reviewed on a regular basis. He suggested that the biggest opportunity is to look at top performing courses and see how Society can present those courses to other parts of the world. He added that the TC or author of the course would have to be involved as they own the content.

Ms. Maston expressed excitement at the opportunity to get more courses to a global platform, providing information that people want and need in their native language.

Mr. Mehboob asked Mr. Macauley to bring back the following information – Why do four out of five BOD members account for such a large percentage of payments to members? What fraction of payments is spent on travel reimbursement? Does ExCom or the BOD review course evaluations? How were Level I HVAC instructors selected and how long have those instructors taught this course?



He added that he would like to have BOD approval on a policy that is mandated for Society. He expressed his desire to give equal opportunities to all members.

Mr. Macauley will draft a policy for the selection and review of ALI instructors. He will also gather information on HVAC Level I and II (or any other courses which earn significant income) – when was the course developed, who developed the course, and how much was paid to instructors on an annual basis. Information should be collected and reviewed for 2012 and 2022.

AI – 11

Mr. Macauley stated that HVAC Level I and II were unsolicited courses that were developed ten years ago by members who were not on the BOD at the time. The course gained popularity and became too much of a lift to meet demand, so other instructors were solicited to assist; these additional instructors were not on the BOD at the time of their selection either.

Mr. Mehboob requested that the data be allowed to speak for itself. He stated that the requested historical analysis would provide data on how long instructors taught a course and how much money they earned while they served on the BOD.

He expressed that all members need to be given the opportunity to be a course instructor and it should not be restricted to a handful of members. He stated that Society cannot carry on with business as usual.

Mr. Macauley asked if it would be more appropriate to develop a policy moving forward as opposed to looking at historical data. He expressed concern with the optics of reviewing historical data and possible disenfranchisement of members.

Mr. Mehboob stated that the intention is to have a policy moving forward. He stated that he is not comfortable with the explanation presented. He stated that there is no justification presented here and he would like to have a justification which is why he requested the data.

He stated that Mr. Macauley should do a deep dive and no specific names need to be provided. He stated that the ultimate objective should be that Society's 55,000 members have an opportunity to present these courses if they are qualified to do so. He stated that he wants to ensure that Society is more open, transparent and equitable.

### **UAE MINISTRY OF ENERGY MOU**

Mr. Littleton reported that an MOU with the UAE Ministry of Energy is similar to having an MOU with DOE in the US. The MOU doesn't fully commit Society to anything.

He recommended that Society sign the MOU.

Ms. Scoggins stated that she understood that this is important and strategic, but she understood that Society would not be signing new MOUs without work plans.

Mr. Rakheja stated that other societies that approach ASHRAE perceive signing a MOU as something that can be showcased as a trophy. He suggested that the approach be revisited, and he suggested that an MOU template be developed.

Mr. Austin suggested sending an MOU and work plan template to organizations that want to work with Society.

Mr. Knight moved and Ms. Maston seconded that

2. ExCom recommend that the MOU with the UAE Ministry of Energy be approved by the BOD.

**MOTION 2 PASSED** (Unanimous Voice Vote, CNV).

### **ASHRAE GSO MOU**

Mr. Littleton reported that this potential MOU has been discussed by ExCom in the past. It was requested that the ISI be contacted. He reported that Mr. Knight did a good job of summarizing those comments, which were included in the agenda attachment.

He reported that next steps would be to send redlined comments back to GSO. He stated that staff wanted ExCom's verification before moving forward.

Mr. Mehboob stated that he was not hearing any negative feedback and advised Mr. Littleton to move forward with sending the redlined comments to GSO.

### **ANALYSIS OF LEGAL FEES AND WAY FORWARD**

Mr. Littleton reported that he was asked to investigate how much Society spends on legal fees annually and make a recommendation as to whether Society should hire in-house counsel.

He reported that the average salary in Atlanta for in-house counsel, according to salary.com, is between \$245,000 and \$365,000 with an average of \$300,000.

In-house counsel would not eliminate the need for outside specialty firm counsel; but, in-house counsel could help to better manage that time.

He reported that the bottom line is there is a pretty big gap between what Society is currently spending on legal fees and the cost of in-house counsel. He recommended that Society not move forward with hiring in-house legal counsel.

### **AASA MOU TEMPLATE**

Mr. Littleton reported that Society has MOUs with some AASA members, but not all. In general, he suggested that Society does not need MOUs with AASA members; being an AASA member has certain benefits which would not then necessitate those organization to have MOUs.

Ms. Abrams added that the attachment to the agenda summarized dates of when current MOUs end, noting that some MOUs do not have end dates. She added that some documents are 'agreements' and she stated that there is uncertainty as to whether those documents create issues legally. She suggested that the names of those documents be changed if they are renewed.

She reported that she has heard that it can be hard to market Society in areas with a strong national association because individuals can join Society at a lower rate through AASA. In these instances, there is little incentive to join Society or the local chapter if the individual can enjoy member benefits at a lower cost.

Mr. Littleton reported that a possible path forward would be to discontinue MOUs with AASA members and emphasize the benefits of AASA membership in lieu of MOUs. He stated that, as Mr. Rakheja noted, MOUs are very important for a lot of organizations and this recommendation may not be received well.

Ms. Abrams stated that she is proposing that there is no need for feel good MOUs but if there is a reason to have an MOU with an AASA member, that could be brought forward. She stated that status as an AASA member in and of itself is not a reason to have an MOU.

Mr. Mehboob suggested that MOUs with AASA members could be transitioned to Memorandums of Agreement. He stated that it was previously suggested that a certificate for AASA members be created.

Mr. Rakheja stated that the idea of sharing a certificate with AASA members does not hold the same significance. He suggested that a standard MOU template be developed for AASA members.

Mr. Austin expressed his opinion that most MOUs should have a work plan; but he stated that he did not have an issue with signing new MOUs that do not include a work plan.

Ms. Scoggins stated that she understood that having an MOU carries greater weight than just being a member of AASA. She suggested that an MOU template be developed with AASA organizations. She expressed her opinion that it is acceptable to have MOUs with organizations that want an MOU with Society.

Mr. Constantinide stated that, in the spirit of streamlining, this may be a good task to delegate to AASA or the leadership of AASA. AASA could craft an MOU with the goal of transitioning to an MOA. He stated that this recommendation could keep ExCom out of the details.

Mr. Wentz stated that AASA was not able to reach consensus on the matter. He stated that there could be some value in going back to AASA to see if consensus can be developed on what brings the most value to AASA members.

Mr. Rakheja stated that other bodies and societies, other than AASA members, approach Society for MOUs. He suggested that a template be developed for MOUs with no work plan.

Staff will develop a draft template for MOUs with AASA members and coordinate with AASA Chair, Sheila Hayter, for review and input.

**AI – 12**

#### **CONSULTANT TRANSPORTATION REIMBURSEMENT**

Mr. Littleton reported that there was an issue recently as to whether consultants to a committee receive transportation reimbursement. He reviewed the ROB references attached to the agenda.

He stated that he would like for ExCom to affirm staff's understanding that consultants receive all the rights of voting members, so they would be reimbursed for transportation.

Ms. Scoggins added that her goal was to have a consistent policy for all committees.

Mr. Mehboob stated that the President-Elect is the sole authority in approving consultants.

Staff will confirm consultant transportation reimbursement policy with RAC. Once confirmed, staff liaisons will communicate that all appointed consultants have transportation reimbursement.

**AI – 13**

**PROPOSED NEW TORONTO SCHOLARSHIP**

Mr. Littleton reported that the Toronto Chapter is in the process of building the endowment for the new proposed scholarship.

Mr. Knight moved and Ms. Maston seconded that

3. ExCom recommend the proposed new Toronto Chapter scholarship be approved by the BOD.

**MOTION 3 PASSED** (Unanimous Voice Vote, CNV).

**ASHRAE-UNEP WORKPLAN UPDATE**

Mr. Wentz reported that the group got a lot done and he wanted to bring a couple of items to ExCom's attention.

He reported that UNEP would like Ms. Scoggins to consider putting an eLearning class and implementation as part of PAOE. He reported that this item had been referred to Ms. Scoggins for her consideration.

He reviewed recommendations for the meeting schedule between ASHRAE and UNEP.

Mr. Mehboob asked Mr. Wentz to convey ExCom's thanks to the team. He requested an update from the group quarterly.

He stated that he would authorize a meeting with UNEP in May. He expressed agreement with the recommendation to focus on the work of UNEP at a dedicated meeting.

**CONFERENCE ATTENDANCE RECOMMENDATIONS**

Mr. Littleton reported that he, Mr. Rakheja, and Mr. Austin were tasked with reviewing conferences that were attended by members in the past and bringing forth a recommendation for conferences that Society should attend in the future.

He reported that for conferences that are not being recommended for attendance, the group evaluated the ROI. Part of the ROI discussion was past attendance, relative engagement, and potential for expanding the relationship.

Mr. Rakheja stated that for the conferences that are being recommended for attendance, the group was cognizant of strategic objectives.

There was a short discussion of who should attend which conference.

Members of ExCom will send recommendations for who should attend conferences this Society Year to Ms. Scoggins by close of business on September 2<sup>nd</sup>. Recommendations should be either third-year Directors, Presidential Members, or members of ExCom.

**AI – 14**

Staff will send the conference attendance recommendation list to third-year Directors and ask if they have relationships, connections, or experience with organizations on the list and if they are interested in attending a conference this Society Year. Responses should be requested by close of business on September 2<sup>nd</sup>.

**AI – 15**

**BUILDING DECARBONIZATION TASK FORCE EXCOM REPORT**

Ms. Scoggins moved and Mr. Macauley seconded that

4. TExCom recommends to the ASHRAE Board of Directors Executive Committee that ASHRAE sign as a supporting organization of the Carbon Leadership Forum MEP 2040 Challenge.

Mr. Littleton stated that this item is coming before ExCom because it has been considered by ExCom in the past.

Ms. Scoggins added that the recommendation was brought before ExCom last year and was defeated. She was asked if the item was reviewed by Society's legal counsel. She confirmed that the Task Force reviewed the recommendation but not legal counsel.

There was discussion of possible amendments to the motion but none moved forward.

**MOTION 4** was **WITHDRAWN** with no objection.

Ms. Scoggins moved and Mr. Macauley seconded that

5. ExCom recommend to the BOD that ASHRAE sign on as a supporting organization of the Carbon Leadership Forum MEP 2040 Challenge.

**MOTION 5 PASSED** (Unanimous Voice Vote, CNV).

**EXECUTIVE SESSION**

Executive session was called at 10:30 am.

Open session reconvened at 10:45 am.

**ADJOURNMENT**

The meeting adjourned at 10:46 am.



Jeff H. Littleton, Secretary

**ATTACHMENTS:**

- A. TEC Reference Manual

**TRAINING AND EDUCATION COMMITTEE  
REFERENCE MANUAL**

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## Quick Reference Guide

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- [ASHRAE Strategic Plan](#)
- [Common Acronyms](#)
- Course Formats
  - [Courses Offered to Chapters](#)
  - [Courses Offered to Companies](#)
  - [Multi-Day HVAC Design & Operations Training](#)
  - [Self-Directed Learning \(SDL\)](#)
  - [Group Learning](#)
- [Current Online Course List](#)
- [Training and Education Committee Minutes](#)
- [Training and Education Committee Manual of Procedures \(MOP\)](#)
- [Rules of the Board \(ROB\)](#)
- [Travel Voucher](#)

### Quick Links:

- Training and Education Committee - [www.ashrae.org/tec](http://www.ashrae.org/tec)
- ASHRAE Professional Development - [www.ashrae.org/education](http://www.ashrae.org/education)
- eLearning – [www.ashrae.org/elearning](http://www.ashrae.org/elearning)
- HVAC Design Training - [www.ashrae.org/hvacdesign](http://www.ashrae.org/hvacdesign)
- Instructor-led Online Courses - [www.ashrae.org/onlinecourse](http://www.ashrae.org/onlinecourse)
- Active Instructor-led Course List - [www.ashrae.org/alicourses](http://www.ashrae.org/alicourses)
- Chapter Courses - [www.ashrae.org/chaptercourses](http://www.ashrae.org/chaptercourses)
- Company Courses - [www.ashrae.org/incompanycourses](http://www.ashrae.org/incompanycourses)
- Self-Directed Learning (SDL) - Individual or Group [www.ashrae.org/sdl](http://www.ashrae.org/sdl)
- Archived Instructor-led Online Courses - [www.ashrae.org/archivedcourses](http://www.ashrae.org/archivedcourses)

## The Role of the Training and Education Committee

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### Rules of the Board

[Updated July 2021]

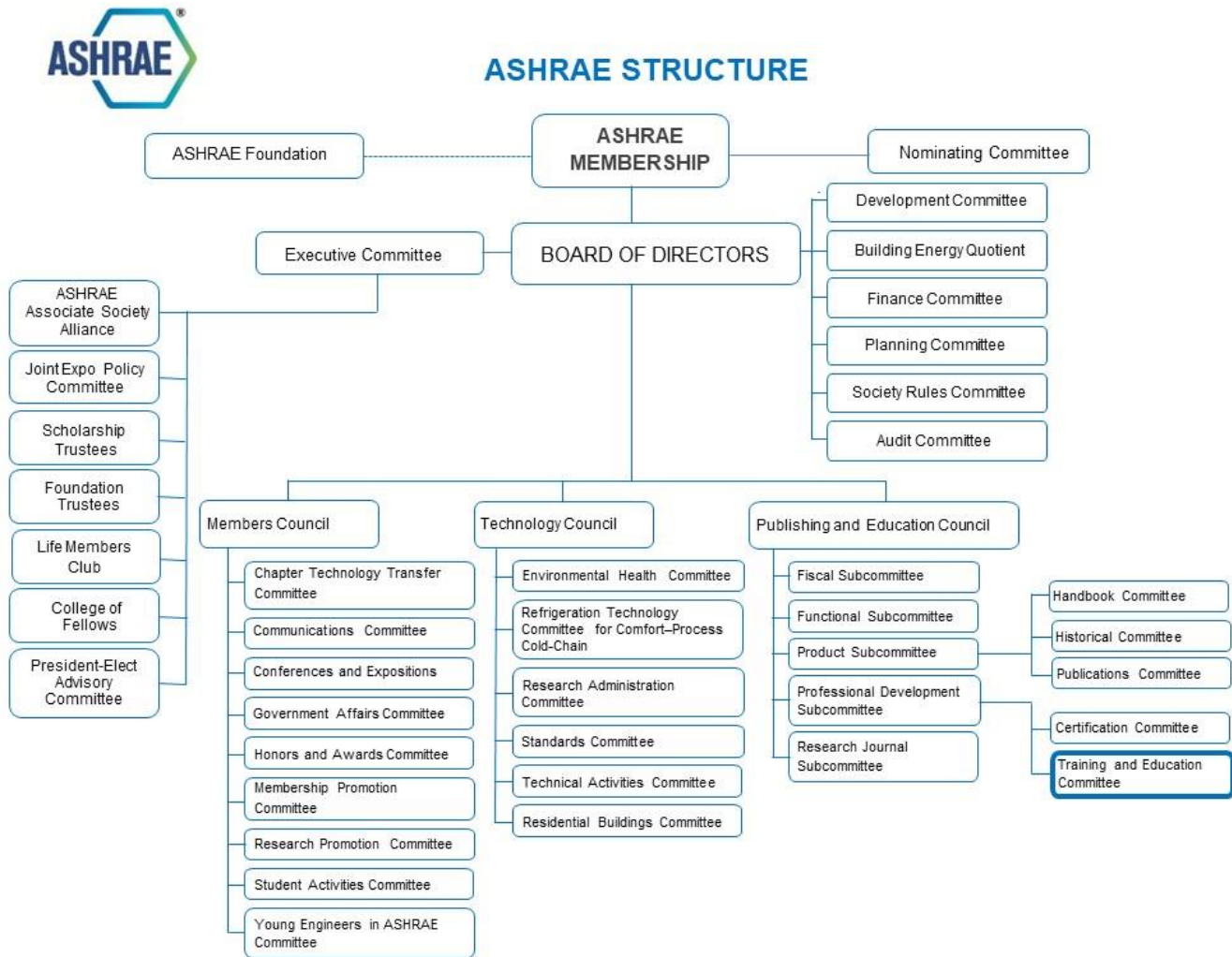
These Rules were adopted by the Board to govern the Society. The Rules of the Board define the Training and Education Committee's authority, organization, and general responsibilities. The four-volume set reflect Board approvals through the July, 2021 Board Meeting including: Principles and Policies, General Rules for Board, Councils and Committees, Operation and Administration, Manuals and Procedures. You can view the complete Rules of the Board [here](#). (Note that you will need to log-in using your member access.)



## TEC Manual of Procedures (MOP)

The Manual of Procedures (MOP) details the operating procedures followed in carrying out the general responsibilities of the committee as prescribed in its Rules of the Board. To view the complete Manual of Procedures click [here](#). You will need to log-in using your member access.

## How TEC Fits in the ASHRAE Structure



## ASHRAE Strategic Plan

ASHRAE's four strategic goals—connect, educate, extend, and adapt—serve as broad statements of what the organization most wants and expects to accomplish over the next several years. The goals are supported, in each case, by a handful of objectives that further define specific accomplishments to pursue within the duration of the plan.

Each objective provides guidance for implementing programs of work and testing and responding to various findings. For example, ASHRAE's work to "assess and implement methods to strengthen the member value proposition" is an ongoing series of experiments and investments that support the broader goal of a vibrant, informed, and engaged member community. To view the complete strategic plan click [here](#).

## History of the Training and Education Committee

In the mid-1970s ASHRAE launched the Professional Development Seminar Series. It was then that the Professional Development Committee was formed to guide this effort – to identify topics, select speakers, etc. The committee reported to Member Council when the council structure was formed in 1981. In 1987 the Education Council was formed.

The Education and Chapter Program Committee was formed reporting to Education Council. ASHRAE Learning Institute was established to focus efforts on educational development for people in the industry. The committees reporting to the former Education Council were reassigned. Education and Chapter Program Committee was divided into the Student Activities Committee and Chapter Program Committees.

On July 1, XXXX a new structure came into existence, combining education and publishing activities into a single, market driven enterprise – The Publications and Education Council 'ASHRAE Learning Institute' became the brand.

In 2020, ASHRAE adopted a new structure for the Publication and Education Council (PEC). As part of the restructuring the Professional Development Committee was renamed Training and Education Committee (TEC), which is the current name of the committee.

## ASHRAE Learning Institute Overview

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ASHRAE Learning Institute (ALI) offers a wide range of professional development seminars, short courses and 2-3 day trainings. Each provides high-quality, authoritative and credible technical information, with all content developed through ALI's peer-review process. ALI instructors are ASHRAE Members, college or university faculty, and/or full-time professional engineers. As a result, each instructor's availability depends greatly on his or her individual schedule. Currently, ALI has 90+ active ALI courses.

### Responsibilities of the ASHRAE Learning Institute

ASHRAE Learning Institute (ALI) is built upon an educational and training foundation laid by the HVAC&R industry's leading educators and practitioners. In order to meet the needs of the engineer in this current 'information age' the Institute draws upon the worldwide resources of ASHRAE, the industry's source for research, standards and reference publications.

The ASHRAE Learning Institute utilizes advanced information technologies, along with traditional instructor-based and self-directed studies to reshape the process by which ASHRAE members and young graduates keep pace with the engineering demands of the 21st Century.

By drawing on the experiences of ASHRAE's 50,000 members worldwide and the more than 2,000 leading practitioners who serve on ASHRAE Technical and Standards Committees, the ASHRAE Learning Institute trains engineers to make immediate contributions to their employers.

**Note: ASHRAE Learning Institute (ALI) comprises an extensive selection of content generally defined as instructor-led online and classroom Short Courses and Professional Development Seminars and multi-day HVAC Design Training, computer-based eLearning modules, and Self-Directed Learning (SDLs) texts. While TEC is not responsible for all ASHRAE course offerings, the committee is fully responsible to oversee the planning and development of all ALI courses and programs.**

## Mission

ASHRAE will be a world-class provider of education and certification programs.

- Provide accessible on-demand education and distance learning to members and other customers.
- Expand ASHRAE's education and certification delivery infrastructure and make it self-supporting.
- Develop a marketing strategy for certification programs within the building and energy systems industry.
- Create educational and train-the-trainer programs that can be offered by ASHRAE chapters.

- Partner with organizations around the world that have expertise in the development and delivery of education and certification programs.
- Promote the ASHRAE Learning Institute brand and the value of life-long learning.
- Develop programs about career opportunities and work with other interested organizations that sponsor or support K-12 programs to promote career fields in our industry.
- Develop and promote educational programs and materials that support documents produced through ASHRAE's Standards Development and Special Publications process.
- Develop and encourage the use of ASHRAE documents in curricula on sustainable building and energy systems used by universities and technical schools.

## Vision

Life-long learning at your fingertips. Check out [www.ashrae.org/education](http://www.ashrae.org/education) for course information.

## ASHRAE Learning Institute Marketing

The primary ALI marketing goal is to expand beyond the current ALI customer base by (1) increasing the percentage of ASHRAE members currently taking advantage of ALI offerings and (2) by reaching beyond the current ASHRAE membership base.

## Professional Development Hours

ASHRAE is an approved Continuing Education provider for the American Institute of Architects (AIA) and a USGBC Education Partner. Continuing Education hours earned from ASHRAE courses may be applied toward renewal of state-licensed professionals and maintenance of LEED® professional credentials. Certificates of Attendance specifying Professional Development Hours (PDHs) and Learning Units (LUs) are provided to participants.

## Course Promotion

ASHRAE Learning Institute (ALI) is marketed via several avenues including but not limited to:

- Mailing/Email to members & non-members
- ASHRAE Insights; Journal; Bookstore
- CRC & RVC training sessions; CTTC
- Various web sites
- New course press releases
- Chapter newsletters
- Cross-marketing with other products/programs

## Course Formats

A key focus for TEC is to foster, develop, and deploy ASHRAE training and educational courses. These courses may be half-day (3-hour) short courses or full-day (6-hour) Professional Development Seminars. The courses may be presented at ASHRAE conferences, spring/fall online courses, chapter programs, individual company programs and other industry conferences and events.

## Instructor-led ASHRAE Learning Institute Courses

Instructor-led classroom teaching is the preferred delivery method for complex topics as it allows for interaction between the student and the instructor. These courses are offered face-to-face and online. For a complete course list click:

[www.ashrae.org/alicourses](http://www.ashrae.org/alicourses)

## Courses Offered to Chapters

ALI offers training that helps ASHRAE chapters close the gap between entry level engineers and seasoned practitioners. ALI arranges for an instructor to visit an agreed location or can license use of educational materials. For more information visit:

<http://www.ashrae.org/chaptercourses>

## Courses Offered to Companies

ALI offers training that helps companies close the gap between entry level engineers and seasoned practitioners. ALI arranges for an instructor to visit an agreed location or license use of educational materials. For more information visit: <http://www.ashrae.org/incompanycourses>

## Multi-Day HVAC Design & Operations Training

ASHRAE Learning Institute offers intensive HVAC Design and Operation training sessions that provide the knowledge and understanding to improve overall building performance:

**Improving Existing Building Operation** focuses on the importance of proper operation and maintenance of existing HVAC systems to increase building performance. The training equips attendees with the techniques to assess existing building performance to make their facilities operate more efficiently and economically.

**HVAC Design: Level I - Essentials** provides intensive, practical training ideal for recent technical or engineering school graduates, engineers new to the HVAC field, those who need a refresher in new technologies, and facility managers, sales representatives and others who want to gain a better understanding of HVAC fundamentals, equipment and systems.

**HVAC Design Level II – Applications** provides instruction in HVAC system design for experienced HVAC engineers and those who have completed the HVAC Design: Level I – Essentials. The training covers the technical aspects of design and allows participants an opportunity to expand their exposure to HVAC systems applications to increase energy savings and improve indoor environmental quality.

**Consulting Engineering Essentials** offers insights into business development, marketing of engineering services, project management, firm ownership and operation. The proposed course will offer insights into all of these subjects to help develop the project engineer into a well-rounded consulting engineer.

For more information visit: <http://www.ashrae.org/hvacdesign>

## Self-Directed Learning (SDL)

Ideal for practicing professionals. Self-Directed Learning course books offer a convenient and flexible approach to continuing education in the HVAC&R field. The learning format allows for review and study at a students' own pace and provides exercises that evaluate their progress.

Self-Directed Learning courses include:

- Course book with complete set of exercises
- Examples of how to apply the principles learnt
- Skill development exercises

For more information visit: <http://www.ashrae.org/sdl>

## Group Learning

Ideal for companies, ASHRAE Chapters, colleges, and universities. Group learning allows the selection of a particular instructor to meet the specific training needs. Each course book is suitable for a series of evening or lunch time sessions, offering the practicing professional a convenient and flexible approach to continuing education.

Group Learning courses include:

- Course books with complete set of exercises
- Instructor's materials
- PowerPoint presentation
- Answer sheets for exercises

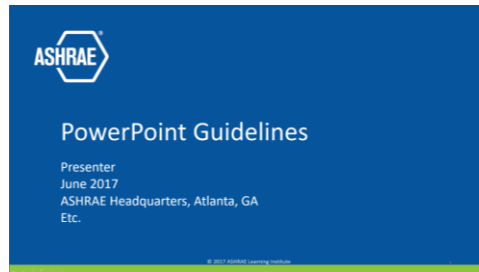
For more information visit: <http://www.ashrae.org/grouplearning>

# Course Development Overview

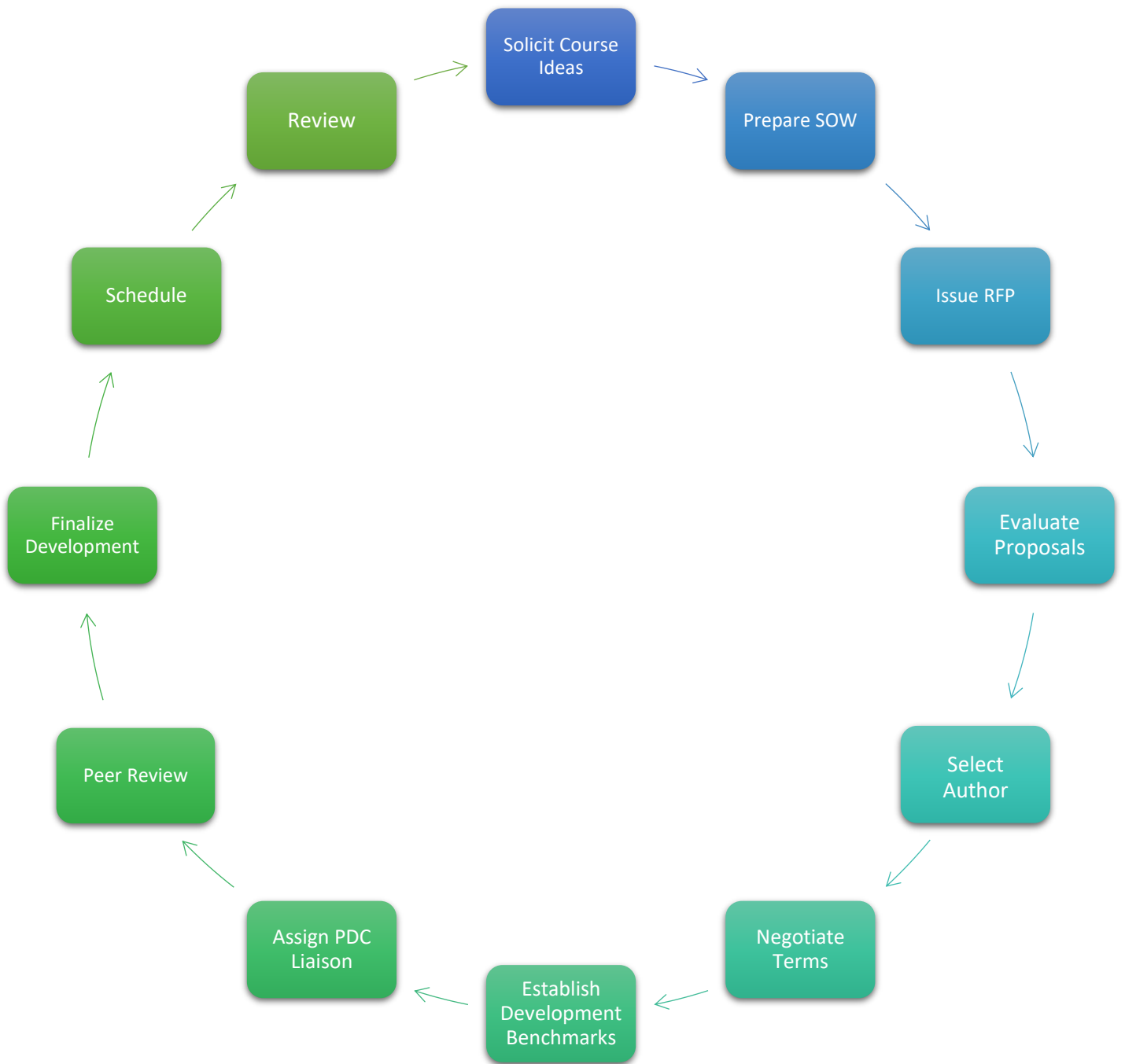
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## PowerPoint Guidelines

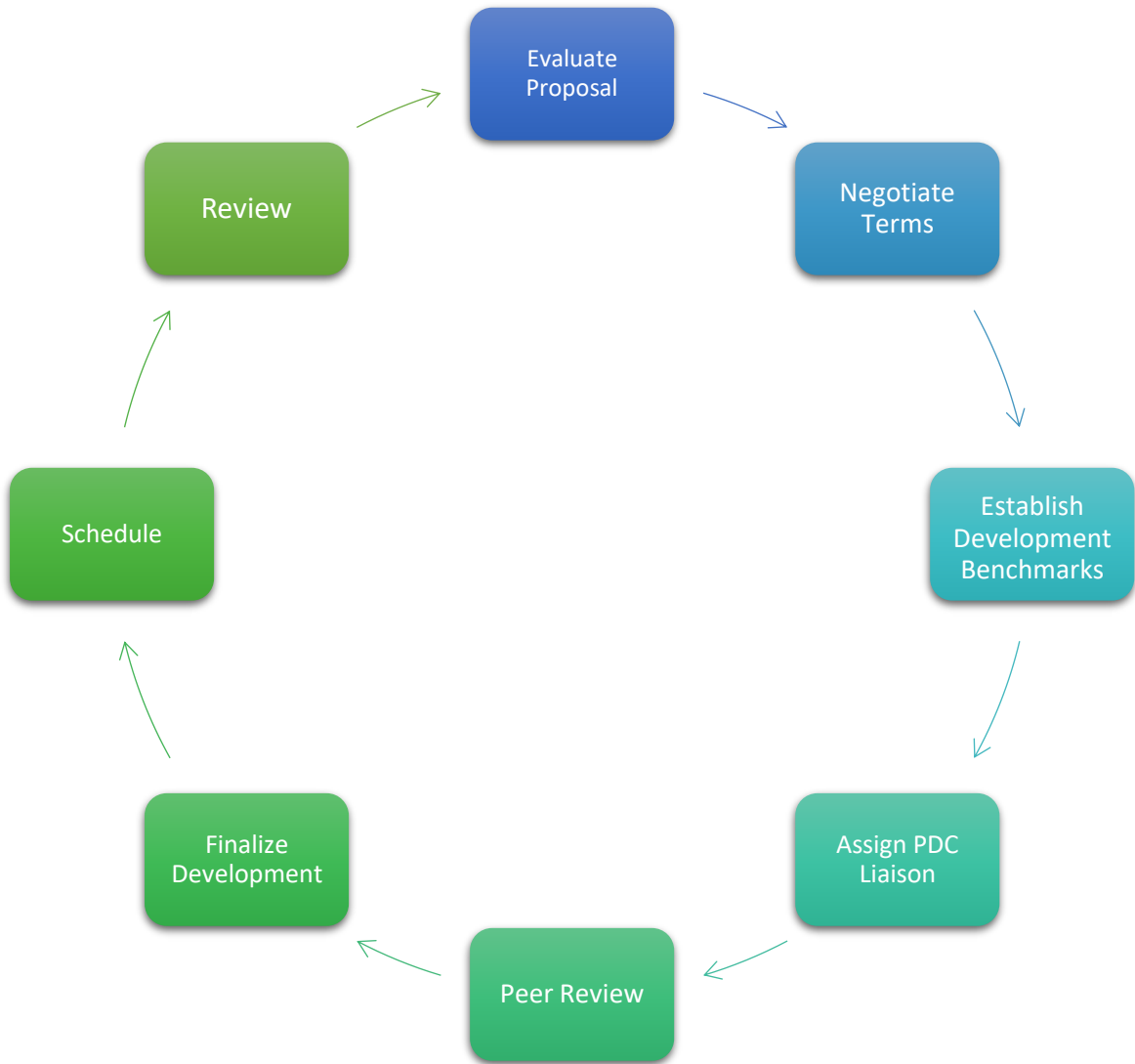
This presentation serves as a guide for course developers and can serve as a reference for a reviewer when reviewing presentations. Note: These guidelines will be available on the webpage once the TEC Reference Manual is approved.



## Solicited Course Development Cycle



## Unsolicited Course Development Cycle (Staff Previews for Completeness)



## Course Development Guidelines

1. Solicit Course Ideas
  - 1.1. Develop these from TEC curriculum plan\*
  - 1.2. Solicit courses
  - 1.3. Identify potential authors/courses at TEC
  - 1.4. Request potential authors/courses from Technical Committees
  - 1.5. Perhaps a general solicitation on the ASHRAE website and/or in ASHRAE publications
  - 1.6. General suggestion box at registration
  - 1.7. Canvass of student advisors or Educational ASHRAE members
  - 1.8. Through surveys from evaluations of other courses
2. Form working group – 2-3 members (to be maintained throughout the use of these guidelines)
  - 2.1. TEC Member Liaison (as appointed by TEC chair or vice-chair)
  - 2.2. Technical Committee member (solicited from TC chair)
  - 2.3. Additional member as identified by TC member
3. Process for Unsolicited Courses
  - 3.1. Proposal must have clearly identified costs
    - 3.1.1. Costs to ASHRAE for material development, printing, etc.
    - 3.1.2. Additional costs to students for non-ASHRAE materials (workbooks, etc.) that must be purchased
  - 3.2. Determine how the course fits in to the TEC curriculum plan
    - 3.2.1. If it's in plan proceed to step **c**
    - 3.2.2. If not, determine if it should be added to TEC curriculum plan or reject proposal
  - 3.3. Unsolicited courses should in general be first tried as short courses.
  - 3.4. Obtain solicitor's agreement that ASHRAE has material copyright
4. Determine Feasibility
  - 4.1. Technically is this a good fit for ASHRAE?
  - 4.2. Define course "type" (short course, etc.)
  - 4.3. Estimate costs (Recoup investment in 4 years)
    - 4.3.1. Development
      - 4.3.1.1. Estimate annual attendance
      - 4.3.1.2. Using average course costs and expected usage levels, estimate profit (loss) per year and for the course life cycle
  - 4.4. Make recommendation to the Training and Education Committee.
    - 4.4.1. If committee votes to continue, move to step 5
    - 4.4.2. If committee votes to discontinue, send information to staff for recording in minutes as an appendix.  
The intent is to provide history for future TEC members if a similar course is suggested in the future.
  - 4.5. These must have a cognizant TC approval and TC members to serve as reviewers
  - 4.6. Consider co-development of courses with other organizations
  - 4.7. Identify required or suggested student material and technology (computer software, etc.).
5. Development of Work Statement for SDLs and solicited work statements. This information must be provided by the solicitor for unsolicited course proposals.
  - 5.1. Develop abstract (1 page maximum) including
    - 5.1.1. Goals
    - 5.1.2. Intended Audience
    - 5.1.3. Major topics to be addressed (very high level)
    - 5.1.4. Submit to TEC for review and approval



- 5.2. Develop work statement
  - 5.2.1. Pattern after previous Work Statements
  - 5.2.2. Develop detailed outline
  - 5.2.3. Define course outcome -- what students should expect to learn
  - 5.2.4. Determine requirement for problems/tests
  - 5.2.5. Develop timeframe requirements for course development (typically 6 to 12 months)
  - 5.2.6. Work statement shall include the requirement for each bidder to write a sample section and include it in their bid.
 

*Note: This section will be a portion of the selection criteria and is intended for review and evaluation of the author's writing style and content.*
  - 5.2.7. Determine selection criteria for contractor selection (*example* below)
    - 5.2.7.1. Price – 20%
    - 5.2.7.2. Author's qualifications – 30%
      - 5.2.7.2.1. Successful prior work with TEC (e.g., based on student evaluations of prior course and timeliness of previous work)
      - 5.2.7.2.2. Industry publications
      - 5.2.7.2.3. Background and references
    - 5.2.7.3. Thoroughness of submittal – 30%
      - 5.2.7.3.1. Response to outline, problems, and tests
      - 5.2.7.3.2. Timeline detail
    - 5.2.7.4. Author's treatment of the sample section – 10%
    - 5.2.7.5. Additional work identified by author – 10%
 

*Note: If author identifies useful additions to the TEC outline and remains within budget, it is taken into consideration.*
  - 5.2.8. Develop scoresheet for the criteria. Scoresheet will be used in evaluation process
  - 5.2.9. Include
    - 5.2.9.1. PowerPoint presentation requirements
    - 5.2.9.2. Unit conversion requirements
  - 5.2.10. Submit to TEC for approval

## 6. Select Contractor

- 6.1. Develop list of 3 possible contractors
  - 6.1.1. TEC pre-authorized list
  - 6.1.2. TC member contacts
  - 6.1.3. Course updates that are minor revisions can be negotiated with the authors
  - 6.1.4. TEC members may not bid on contracts while on the TEC
- 6.2. Have staff send Work Statements out for bids
- 6.3. Evaluate contractors against criteria
- 6.4. Submit ranked list of contractors to TEC
  - 6.4.1. Include evaluation scores
  - 6.4.2. Include bids
  - 6.4.3. Recommend contractor
- 6.5. TEC votes on contractor

## 7. Staff negotiate terms with contractor

## 8. Planning Subcommittee develop the following while contractor is completing course

- 8.1. First course offering date
 

*Note: no course should be scheduled until the final product has been approved by the working group.*
- 8.2. First course instructor and format

## 9. Acceptance of Course

- 9.1. Working Group Evaluation (Based upon Approved Timeframe)
  - 9.1.1. First two chapters proofread and approved before contractor continues
  - 9.1.2. Approve a maximum 3 chapters at a time
- 9.2. Quarterly: Apprise TEC of contractor's completion vs. timeline
- 9.3. Submit final draft to TEC prior to expected vote
- 9.4. Obtain TEC approval

10. Author evaluations

- 10.1. Liaison and reviewer to fill in course spreadsheet within 60 days

\*The present thought of the PDC chair is there should be a PDC curriculum plan – developed by the planning subcommittee. This is outside the scope of this guideline.

### Suggested Timeframes for Course Development

1) Solicit Course Ideas	Ongoing
2) Form Working Group	Ongoing
3) Process for Unsolicited Course	3 weeks for planning subcommittee to make decision to move to feasibility stage
4) Determine Feasibility (a,b,c & d)	2 months maximum for recommendation and TEC vote
5) Development of Work Statements (a & b (i thru x))	3 month maximum for Abstract, Work Statement and TEC vote
6) Select Contractor	2 months including bidder selection, bidding, review, recommendations and PC vote
7) Staff negotiate terms with contractor	3 weeks
8) Planning Sub Committee	Ongoing
9) Acceptance of Course	As stated in contract (typical goal 6-12 months)
10) Author Evaluations	Ongoing

### Peer Reviewer Guidelines for Courses

#### Importance of “Scope of Work” (SOW)

The Scope of Work should be provided to all reviewers. It documents the work that is expected of the author(s). It includes the scope, intended audience, courses outline, and any specific items that should be addressed. For a course that is being revised, specific changes required and errors to be corrected may also be documented.

#### Audience

The SOW is written keeping in mind someone with two years of engineering school who has just entered a relevant field of work (some formal training, but little or no experience); they should be able to read and understand the material as it is written. However the potential target audience is much larger and could include high school graduates, graduate engineers, and architects.

## Objective

It is important that the reviewer deem the presentation be accurate and relevant. The Learning Objectives must match the course outline and content.

## Reporting the Review

If there are comments 'track changes' must be used.

## Things to Consider

- Does it meet the Scope of Work?
- Does it make sense?
- Do the Learning Objectives match the presentation and course outline?
- Does the content fulfill the stated objectives at the beginning of each chapter?
- Thoroughness (keeping in mind the audience)
- Technical accuracy
- Relevance of examples
- Relevance and solvability of skill exercises
- Mathematical accuracy (There is not a requirement to check each problem)