



ASHRAE Personnel Certification Programs 2017 Building Codes Advocates Meeting

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Background

ASHRAE Certification Programs

- ◉ Began in 2007 to meet industry needs as identified through market research
- ◉ Six current unique individual certifications have been developed with a seventh under construction
- ◉ Over 2,700 certifications earned to date
- ◉ Developed by SMEs, including those recruited from allied professional organizations
- ◉ Aligned with ANSI/ISO/IEC 17024 accreditation standard



ASHRAE Certification

- ✓ Commissioning BCxP
- ✓ Energy Auditing BEAP
- ✓ Energy Modeling BEMP
- ✓ High-Performance Building Design HBDP
- ✓ Healthcare Facility Design HFDP
- ✓ Building Operations & Performance OPMP



ISO/IEC 17024
Personnel Certification Program



ISO/IEC 17024
Personnel Certification Program



ISO/IEC 17024
Personnel Certification Program




ISO/IEC 17024
Personnel Certification Program
#1132



Eligibility Requirements

Education + work experience = sit for certification examination



Appendix A

The American Society of Heating, Refrigerating and Air-Conditioning Engineers Building Energy Modeling Professional Examination Detailed Content Outline	Items			Totals
	Cognitive Level			
	Recall	Application	Analysis	
<small>Open cells show an examination could include items from indicated cognitive levels. Shaded cells prevent appearance of items on examinations.</small>				
I. ESTABLISHING THE MODELING SCOPE	3	7	7	17
A. Modeling Objectives	0	1	2	3
1. Define the purpose of the modeling study				
2. Interpret the design intent of the building project				
3. Evaluate the completeness of the design and operation information				
4. Link required project deliverables to goals of the modeling study				
B. Analysis Methodologies	2	3	3	8
1. Differentiate among calculation methods within available software and tools e.g.,				
a. time-neutral e.g.,				
• bin method				
• degree day				
b. time-sequencing e.g.,				
• heat balance				
• thermal network				
• weighting factor				
• parametric				
2. Evaluate mathematical modeling methods for building components e.g.,				
• empirical				
• first-principle of thermodynamics				
• regression				
3. Translate a building project into an energy model				
a. simplify building physics to a mathematical model				
b. anticipate the impact of simplification and model deficiencies				
C. Software and Tool Selection	1	2	1	4
1. Evaluate the appropriateness of the methodology by characteristics of the project e.g.,				
• project phase				
• climate				
• building type				
2. Select the optimal software and tools to meet output data needs of the project e.g.,				
• life-cycle cost analysis				
• individual component performance				
• energy use and demand				



Value to Certification Earners

1. Third-party validation of critical, job-related KSAs
2. Improved opportunity for being hired or promoted and to generate new business
3. Demonstrated commitment to professional development



Government Recognition

- ▶ US Department of Energy



The Department of Energy recognizes certification programs that are aligned with the Better Buildings Workforce Guidelines and which have received qualified accreditation by the [American National Standards Institute](#), [International Accreditation Service](#), or other qualified accreditation bodies who are in compliance with ISO/IEC 17024:2012.



Government Recognition

- ▶ The [BCxP](#) and [BEAP](#) certifications have been [recognized](#) by the U.S. Department of Energy (DOE) as meeting the Better Buildings Workforce Guidelines (BBWG).

<https://betterbuildingsolutioncenter.energy.gov/workforce/better-buildings-workforce-guidelines>

<https://betterbuildingsolutioncenter.energy.gov/workforce/participating-certifying-organizations>



Certified

Government Recognition

Department of Defense

- ▶ [BEAP](#), [BEMP](#), [HBDP](#), [HFDP](#) and [OPMP](#) linked to 68 unique military occupations across the four Services: [Airforce COOL](#), [Army COOL](#), [Marine Corps COOL](#) and [Navy COOL](#).



Government Recognition

General Services Administration

- ▶ [BEAP](#), [CPMP](#) and [OPMP](#) are [FBPTA Aligned](#) and meet FBPTA requirements. These qualifications are included in the 2015 Core Competencies and Recommended Curriculum and have been added to the [Accelerate FM](#) tool.



For More Information

- ▶ Visit www.ashrae.org/certification
- ▶ E-mail certification@ashrae.org
- ▶ Phone [1-800-527-4724](tel:1-800-527-4724) (US and Canada)
[or 404-636-8400](tel:404-636-8400) (worldwide)

