

Certified Energy Manager (CEM®) Workshop

Days: **4 Days** | Course Fee: **USD 1,900**



Course Description

The Certified Energy Manager (CEM®) accreditation is one of the most respected in the field of energy management with international recognition from the Association of Energy Engineers (AEE). Since 1981, over 30,000 professionals from over 100 countries have participated in AEE's CEM® program. The program is ISO IEC 17024 accredited by Entidad Nacional de Acreditación (ENAC) and American National Standards Institute (ANSI,) and is also a U.S.

Department of Energy Better Buildings Workforce Guidelines Recognized Program. It is also accredited by leading organizations worldwide. Since its inception in 1981, the CEM® certification program has demonstrated its validity year after year. CEMs optimize the energy performance of a facility, building, or industrial plant. They work as systems integrator for electrical, mechanical, process, and building infrastructure, analyzing the optimum solutions to reduce energy

consumption in a cost-effective approach. CEMs are often team leaders and help to develop and implement their organizations' energy management strategies. CEMs have gained increased recognition within the energy industry and by companies looking to strengthen their competitive position by having responsible energy strategies and sustainable operational practices.

CEM® training program provides in-depth knowledge of principles, practices and technologies needed to enhance the energy performance of buildings. After completing this preparatory training, attendees are required to pass a proctored exam to be eligible to receive the CEM® certification.

What You Will Learn

By completing this program, you will learn about:

- Codes and Standards
- Energy Accounting and Economics
- Energy Audits and Instrumentation
- Electrical Power Systems and Motors
- HVAC Systems
- Industrial Systems
- Building Envelope
- CHP Systems and Renewable Energy
- Fuel Supply and Pricing
- Building Automation and Control Systems
- Thermal Energy Storage Systems
- Lighting Systems
- Boiler and Steam Systems
- Maintenance and Commissioning
- Energy Savings
- Performance Contracting and Measurement & Verification

Who Should Attend?

- Energy managers looking to validate your experience and knowledge.
- Consultants specializing in improving the energy efficiency of buildings and building systems.
- Building owners or managers looking to understand how energy savings can finance their next project.
- Professionals involved in developing energy efficiency projects, strategies or sustainability programs for organizations.

Applicants must meet one of the following eligibility criteria:

- Hold a 4-year engineering or architectural degree OR Professional Engineer (PE) OR Registered Architect (RA) and 3+ years related* work experience.
- Hold a 4-year technology, environmental science, physics, or earth science degree and 4+ years related* work experience.
- Hold a 4-year business degree and 5+ years related* work experience.
- Hold a 2-year energy management associate degree and 6+ years related* work experience.
- Hold a 2-year associate degree and 8+ years related* work experience.
- Have 10+ years related* work experience.

Course Modules

Course Content (Teaching Modules)

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| Module 1: | Fundamentals of Energy; Introduction to Energy Auditing in Buildings |
| Module 2: | Energy Audits; and Green Building Operations Certification |
| Module 3: | Energy Audits Levels of Efforts and Audit Plan Management |
| Module 4: | Audit Plan Management; and Pre-Audit Preparation |
| Module 5: | On-site measurements |
| Module 6: | Data Analysis |
| Module 7: | Building Fabric; HVAC Systems; Lighting Systems |
| Module 8: | Equipment; Domestic Hot Water; and Building Controls |
| Module 9: | Energy Audit Report |
| Module 10: | Mars Principle for Energy Efficiency; and Energy Audit Resources |