

## **Accredited Energy Manager (AEM) Certification Course Syllabus**

---

### **Course Overview**

The Accredited Energy Manager (AEM) Certification Course provides foundational knowledge and practical skills essential for individuals beginning or advancing their careers in energy management. This course covers the core principles of energy efficiency, program development, technical energy basics, project analysis, and project management, equipping participants to effectively manage energy resources within their organizations.

### **Learning Objectives**

Upon successful completion of this course, participants will be able to:

- Understand the fundamental elements of an effective energy management program.
- Grasp basic energy units, conversions, and the operation of common mechanical, electrical, and lighting systems.
- Conduct initial energy project analysis, including benchmarking, audits, and utility billing analysis.
- Apply economic analysis and understand various financing mechanisms for energy projects.
- Manage energy projects from planning to close-out, adhering to relevant codes and standards.
- Implement basic Measurement & Verification (M&V) techniques.
- Effectively promote and communicate program needs and performance.

### **Target Audience**

This course is ideal for individuals new to energy management, facility personnel, sustainability coordinators, and anyone responsible for identifying, analyzing, and implementing energy-saving opportunities within an organization. It serves as a prerequisite for more advanced energy management certifications.

### **Course Format**

This is an online, self-paced course structured into six modules, each containing multiple lessons. The course incorporates knowledge checks, exercises, and practical applications to enhance learning, as well as virtual review sessions to prepare participants for the exam.

### **Assessment and Deliverables**

Your performance in this course will be evaluated based on the completion of online knowledge building questions, practical exercises, and a final certification process. Detailed information regarding deliverables will be provided in Module 1, Lesson 3.

### **Pre-Requisites**

None (AEM course registration and exam registration are separate)

### **Professional Development Hours**

18 PDH credits, upon successful completion of the certification exam

## **Course Modules and Lessons**

### ***MODULE 1: INTRODUCTION & COURSE OVERVIEW***

- Lesson 1: Course Expectations
- Lesson 2: Meet the Instructors / Reviewers
- Lesson 3: Info on Deliverables
- Lesson 4: Discussion of Items / Info Needed

### ***MODULE 2: ELEMENTS OF AN EFFECTIVE ENERGY MANAGEMENT PROGRAM***

- Lesson 1: The New Energy Manager
- Lesson 2: Strategies to Energize a Program
- Lesson 3: General Operating Procedures and Guidelines
- Lesson 4: Ongoing Program Development
- Lesson 5: Strategic Promotion of the Energy Program – Communication

### ***MODULE 3: ENERGY BASICS***

- Lesson 1: Energy Units and Conversions
- Lesson 2: Mechanical Systems
- Lesson 3: Electrical Systems
- Lesson 4: Lighting Systems
- Lesson 5: Controls
- Lesson 6: Commissioning
- Lesson 7: Indoor Environmental / Air Quality
- Lesson 8: Building Envelope
- Lesson 9: Water Conservation
- Lesson 10: Renewable Energy Systems

### ***MODULE 4: ENERGY PROJECT ANALYSIS AND DEVELOPMENT***

- Lesson 1: Basic Tasks (e.g., benchmarking)
- Lesson 2: Energy Audits
- Lesson 3: Utility Billing Analysis
- Lesson 4: Energy Accounting
- Lesson 5: Economic Analysis
- Lesson 6: Financing Mechanisms
- Lesson 7: Measurement & Verification

### ***MODULE 5: ENERGY PROJECT MANAGEMENT***

- Lesson 1: Project Planning and Scope Management
- Lesson 2: Procurement Methods
- Lesson 3: Energy Codes and Standards
- Lesson 4: Project Delivery & Close-Out

### ***MODULE 6: FINAL CERTIFICATION PROCESS & COURSE SUMMARY***