Sustainable Building and LEED Certification Strategies Training Course

21 - 25 Dec 2026

Boston

7500 € (Per Person)

Ref: #ENV4862_101616

Course Introduction / Overview:

The global construction industry is undergoing a profound transformation, driven by the urgent need for environmental responsibility and resource efficiency. This shift has elevated green building from a niche concept to a global standard, with the Leadership in Energy and Environmental Design (LEED) framework at its forefront. This comprehensive course is meticulously designed to provide a deep and practical understanding of sustainable building principles and the intricacies of the LEED certification process. As highlighted by Dr. Charles J. Kibert in his seminal work, "Sustainable Construction: Green Building Design and Delivery," the future of the built environment depends on integrating sustainable practices throughout a project's lifecycle. This program moves beyond theoretical knowledge, offering actionable strategies for implementing green building standards and successfully navigating the LEED rating systems. Participants will explore everything from initial design concepts and material selection to operational efficiency and post-occupancy performance. BIG BEN Training Center has developed this curriculum to empower professionals to lead the charge in creating healthier, more sustainable, and economically viable buildings for a resilient future.

Target Audience / This training course is suitable for:

- Architects and Designers.
- Civil, Mechanical, and Electrical Engineers.
- Construction Project Managers.
- Real Estate Developers and Investors.
- Facility and Building Managers.
- Sustainability Consultants and Officers.
- Urban Planners and Policy Makers.
- Contractors and Subcontractors.
- Environmental, Health, and Safety (EHS) Professionals.
- Anyone aspiring to become a LEED Green Associate or LEED AP.

Target Sectors and Industries:

- Construction and Engineering.
- Real Estate Development and Management.
- Architecture and Design Services.
- Governmental and Public Sector Agencies.
- Hospitality and Tourism.
- Healthcare Facilities.
- Educational Institutions.
- Manufacturing and Industrial Operations.
- Consulting and Professional Services.
- Non-Profit and Non-Governmental Organizations.

Target Organizations Departments:

- Project Management Office (PMO).
- Design and Engineering.
- Sustainability and Corporate Social Responsibility (CSR).
- Operations and Facilities Management.
- Procurement and Supply Chain.
- Real Estate and Asset Management.
- Planning and Development.
- Compliance and Regulatory Affairs.
- Capital Projects.
- Health, Safety, and Environment (HSE).

Course Offerings:

By the end of this course, the participants will have able to:

- Analyze the core concepts of sustainable design and green building principles.
- Differentiate between the various LEED rating systems and select the appropriate one for a project.
- Navigate the entire LEED certification process, from project registration to final review.
- Evaluate sustainable strategies for site selection, water efficiency, and energy performance.
- Identify and specify environmentally preferable materials and resources.
- Develop strategies to enhance indoor environmental quality for occupant health and well-being.
- Master the documentation requirements for LEED credits and prerequisites.
- Apply integrated design process principles to green building projects.
- Prepare effectively for the LEED Green Associate professional credentialing exam.
- Assess the long-term economic and environmental benefits of LEED-certified buildings.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be immersive, interactive, and highly practical. We believe that adult learning is most effective when it combines expert knowledge with hands-on application. This course moves beyond traditional lectures to create a dynamic learning environment. Sessions will feature a blend of detailed presentations, real-world case study analyses of successful LEED-certified projects, and interactive group discussions that encourage peer-to-peer learning. Participants will engage in practical workshops, including mock LEED scorecard exercises and documentation simulations, to build tangible skills. Collaborative team activities will challenge participants to solve complex green building scenarios, mirroring the integrated design process required in the field. Our expert instructors facilitate a supportive atmosphere where questions are encouraged and complex topics are demystified. Continuous feedback is provided throughout the course to ensure a comprehensive understanding and mastery of the concepts, preparing participants to apply their new knowledge immediately in their professional roles.

Course Agenda (Course Units):

Unit One: Foundations of Sustainable Design and Green Building

- Introduction to Sustainability and the Built Environment.
- The Triple Bottom Line in Construction.
- Principles of Integrated Design Process.
- Global Green Building Standards Overview (BREEAM, WELL, etc.).
- The U.S. Green Building Council (USGBC) and its Mission.
- Core Concepts of the LEED Framework.
- Understanding the Business Case for Green Buildings.

Unit Two: A Deep Dive into LEED Rating Systems

- LEED for Building Design and Construction (BD+C).
- LEED for Interior Design and Construction (ID+C).
- LEED for Building Operations and Maintenance (O+M).
- LEED for Neighborhood Development (ND) and Homes.
- Navigating LEED Credit Categories.
- Understanding Prerequisites, Credits, and Points.
- Interpreting the LEED Scorecard and Certification Levels.

Unit Three: The LEED Certification and Project Management Process

- Roles and Responsibilities in a LEED Project Team.
- Project Registration and Timeline Planning.
- Managing Documentation and Submittals via LEED Online.
- Strategies for Credit Interpretation Requests (CIRs).
- The Review and Appeals Process.
- Cost Implications of LEED Certification.
- Preparing for the LEED Green Associate Exam.

Unit Four: Technical Application of Key LEED Credit Categories

- Location and Transportation (LT) Credits.
- Sustainable Sites (SS) Credits.
- Water Efficiency (WE) Credits.
- Energy and Atmosphere (EA) Credits.
- Materials and Resources (MR) Credits.
- Indoor Environmental Quality (EQ) Credits.
- Innovation (IN) and Regional Priority (RP) Credits.

Unit Five: Advanced Strategies and the Future of Green Building

- Synergies and Trade-offs Between LEED Credits.
- LEED v4.1 and the Future of the Rating System.
- Concepts of Net-Zero Energy, Water, and Waste.
- Integrating Building Information Modeling (BIM) for Sustainability.
- Lifecycle Assessment (LCA) and Cost Analysis.
- Post-Occupancy Evaluation and Building Performance Monitoring.
- Comprehensive Course Review and Final Case Study Workshop.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

As cities become denser, how can the principles of LEED be scaled from individual buildings to entire urban districts to foster truly sustainable communities?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by moving beyond mere exam preparation to offer a holistic and strategic mastery of sustainable building practices. While many programs focus narrowly on the mechanics of passing the LEED exam, our curriculum is built around the practical application of green building principles throughout a project's entire lifecycle. We emphasize the "why" behind the "how," exploring the complex interplay between design choices, environmental impact, and financial performance. The course integrates real-world case studies that showcase both successes and challenges in achieving LEED certification, providing participants with invaluable, actionable insights. Furthermore, our focus extends to advanced and future-facing topics such as lifecycle assessment, net-zero building concepts, and the integration of digital tools like BIM for sustainability management. The curriculum is designed not just to create certified professionals, but to cultivate leaders who can drive the integrated design process, champion sustainability within their organizations, and contribute meaningfully to the evolution of the built environment.