Green Building and LEED Certification Strategies Training Course



26 - 30 Oct 2026

Tokyo

5800 € (Per Person)

Ref: #SUS9081_142267

Course Introduction / Overview:

The global shift towards sustainability has placed green building practices at the forefront of the construction and real estate industries. This course provides a comprehensive exploration of sustainable design principles and the practical application of the Leadership in Energy and Environmental Design (LEED) rating system, the world's most widely used green building framework. Participants will delve into the core concepts that define a high-performance building, from energy efficiency and water conservation to indoor environmental quality and sustainable materials. Drawing on foundational principles outlined by experts like Charles J. Kibert in his seminal work, "Sustainable Construction: Green Building Design and Delivery," this program moves beyond theory to offer actionable strategies for successful LEED project implementation. BIG BEN Training Center has designed this curriculum to empower professionals with the knowledge to navigate the complexities of the LEED certification process, analyze credit requirements, and integrate sustainable strategies seamlessly into project lifecycles. This training is essential for anyone looking to lead the charge in creating healthier, more environmentally responsible, and resource-efficient buildings for the future. By mastering these concepts, participants will be equipped to make a tangible impact on the built environment and their organization's sustainability goals.

Target Audience / This training course is suitable for:

- Architects and Designers.
- Civil, Mechanical, and Electrical Engineers.
- Construction Project Managers.
- Sustainability Consultants and Coordinators.
- Real Estate Developers and Investors.
- Facility and Building Managers.
- Urban Planners and Policy Makers.
- Corporate Social Responsibility (CSR) Managers.
- Building Commissioning Agents.
- Product Manufacturers and Suppliers of green materials.

Target Sectors and Industries:

- Architecture, Engineering, and Construction (AEC).
- Commercial and Residential Real Estate.
- Corporate Facilities Management.
- Hospitality and Tourism.
- Healthcare Facilities.
- Educational Institutions.
- Governmental agencies and public works departments.
- Manufacturing and Industrial sectors.
- Retail and Commercial Development.

Target Organizations Departments:

- Project Management Office (PMO).
- Design and Engineering Departments.
- Sustainability and Environmental Compliance.
- Facilities and Operations Management.
- Construction Management.
- Procurement and Supply Chain.
- Corporate Real Estate and Asset Management.
- Strategic Planning and Development.
- Corporate Social Responsibility (CSR).
- Quality Assurance and Control.

Course Offerings:

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

- Identify the core concepts of sustainable design and green building principles.
- Navigate the structure and intent of the LEED v4.1 rating system.
- Analyze the requirements for each LEED credit category, including Location and Transportation, and Sustainable Sites.
- Evaluate strategies for achieving credits in Water Efficiency and Energy and Atmosphere.
- Assess building materials and resources based on life cycle impacts and LEED criteria.
- Develop plans to enhance Indoor Environmental Quality (IEQ) for occupant well-being.
- Manage the LEED documentation and certification process from registration to final review.
- Integrate sustainable project management practices into conventional construction workflows.
- Perform a basic cost-benefit analysis for implementing green building technologies.
- Prepare effectively for the LEED Green Associate professional credentialing exam.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be immersive, practical, and highly interactive, ensuring participants can translate theoretical knowledge into real-world skills. This course moves beyond traditional lectures by incorporating a dynamic blend of learning techniques. A cornerstone of our approach is the extensive use of case studies featuring globally recognized LEED-certified buildings, allowing participants to deconstruct successful strategies and learn from actual project challenges. Interactive workshops and group-based exercises will be central to the learning experience, where attendees will collaborate to perform mock credit calculations, evaluate material data sheets, and develop documentation strategies for different LEED prerequisites and credits. Facilitated brainstorming sessions will encourage creative problem-solving for complex design and construction scenarios. Our expert instructors foster a collaborative environment, providing continuous feedback and guiding discussions on the latest trends in sustainable technology and building performance analysis. The program emphasizes a hands-on approach, ensuring that every participant leaves with the confidence and competence to apply green building standards and lead LEED certification efforts within their own organizations.

Course Agenda (Course Units):

Unit One: Foundations of Green Building and Sustainable Design

- Introduction to Sustainability and the Triple Bottom Line.
- The History and Evolution of the Green Building Movement.
- Core Principles of Integrated Design Process (IDP).
- Understanding the U.S. Green Building Council (USGBC) and LEED.
- Overview of the LEED Rating Systems (BD+C, ID+C, O+M).
- Key Concepts: Life Cycle Assessment (LCA) and Life Cycle Costing (LCC).
- Exploring Global Green Building Standards Beyond LEED.

Unit Two: LEED Credit Categories: Site and Water

- Location and Transportation (LT) Credit Analysis.
- Strategies for Sustainable Sites (SS) Credits.
- Protecting and Restoring Habitats and Sensitive Land.
- Managing Stormwater and Reducing Heat Island Effect.
- Deep Dive into Water Efficiency (WE) Prerequisites and Credits.
- Techniques for Indoor and Outdoor Water Use Reduction.
- Process Water, Water Metering, and Cooling Tower Water Use.

Unit Three: LEED Credit Categories: Energy and Materials

- Energy and Atmosphere (EA) Prerequisites and Credits.
- Minimum and Advanced Energy Performance Strategies.
- Renewable Energy Integration and Carbon Offsets.
- Fundamentals of Building Commissioning and Verification.
- Materials and Resources (MR) Credit Deep Dive.
- Building Life-Cycle Impact Reduction and Disclosure.
- Sourcing of Raw Materials and Construction Waste Management.

Unit Four: LEED Credit Categories: Indoor Environment and Innovation

- Indoor Environmental Quality (IEQ) Credit Analysis.
- Strategies for Enhancing Indoor Air Quality and Ventilation.
- Optimizing Thermal Comfort, Lighting, and Acoustics.
- Low-Emitting Materials and Occupant Comfort Surveys.
- Understanding the Innovation (IN) Credit Category.
- Exploring Exemplary Performance and Pilot Credits.
- The Role of Regional Priority (RP) Credits.

Unit Five: LEED Certification Process and Project Management

- Navigating the LEED Certification Timeline and Phases.
- Roles and Responsibilities of the Project Team.
- Comprehensive Guide to LEED Documentation and Submission.
- Using LEED Online for Project Registration and Credit Submittals.
- Strategies for Integrating LEED into Project Budgets and Schedules.
- Preparing for the LEED Green Associate Exam.
- Course Review, Final Project Workshop, and Q&A Session.

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:

How can the principles of green building be adapted to historical building preservation without compromising their architectural integrity?

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

This course distinguishes itself by focusing on the strategic implementation of green building principles rather than mere theoretical knowledge or exam preparation. While it thoroughly prepares participants for the LEED Green Associate credential, its core value lies in cultivating a deeper, more practical understanding of how to lead and manage a sustainable project from conception to completion. We move beyond a simple credit-by-credit checklist approach to explore the synergies and trade-offs between different sustainable strategies, emphasizing the importance of the integrated design process. The curriculum is enriched with real-world case studies that dissect not only the successes but also the challenges faced in actual LEED projects, providing invaluable lessons in problem-solving and risk management. Furthermore, the course places a strong emphasis on the business case for green building, equipping participants with the ability to articulate the financial benefits, such as operational savings and increased asset value, to key stakeholders. It provides a holistic perspective that connects design choices to long-term building performance, occupant well-being, and corporate sustainability goals, empowering attendees to become true champions of sustainable development in their professional roles.