Sustainable Green Building and LEED v4.1 Implementation Training Course



18 - 22 Oct 2026

Doha

5500 € (Per Person)

Ref: #CON8585_222067

Course Introduction / Overview:

The global shift towards environmental responsibility has placed sustainable construction at the forefront of the building industry. This course provides a comprehensive exploration of green building principles and the practical application of the Leadership in Energy and Environmental Design (LEED) v4.1 rating system. As detailed by authors like William McDonough in his influential book "Cradle to Cradle: Remaking the Way We Make Things," the future of design lies in creating systems that are not just efficient but regenerative. This program is meticulously designed to move beyond theoretical knowledge, offering participants the skills to manage and execute sustainable projects successfully. We will delve into the core concepts of sustainable design, from site selection and water efficiency to energy optimization and material sourcing. BIG BEN Training Center has developed this curriculum to empower professionals to lead the charge in creating healthier, more sustainable built environments, ensuring they are equipped with the latest standards and best practices for LEED implementation and green building project management. This training is an essential investment for anyone looking to master the complexities of sustainable construction and achieve excellence in their projects.

Target Audience / This training course is suitable for:

- Architects and Designers.
- Civil, Structural, and MEP Engineers.
- Construction Project Managers.
- Real Estate Developers and Investors.
- Facility Managers and Building Operators.
- Sustainability Consultants and Officers.
- Urban Planners and Municipal Officials.
- Corporate Social Responsibility (CSR) Managers.
- Environmental Health and Safety (EHS) Professionals.
- Procurement and Sourcing Specialists in the construction sector.

Target Sectors and Industries:

- Architecture, Engineering, and Construction (AEC) Sector.
- Commercial and Residential Real Estate Development.
- Corporate and Commercial Property Management.
- Governmental and Public Sector Agencies (e.g., Public Works, Urban Planning).
- Healthcare and Hospital Facilities.
- Educational Institutions and University Campuses.
- Hospitality and Tourism Sector.
- Manufacturing and Industrial Facilities.
- Non-Profit and Non-Governmental Organizations focused on sustainability.

Target Organizations Departments:

- Project Management Office (PMO).
- Design and Engineering Departments.
- Sustainability and Environmental Compliance Departments.
- Facilities and Operations Management.
- Construction and Site Management Teams.
- Procurement and Supply Chain Management.
- Corporate Real Estate and Asset Management.
- Strategic Planning and Development.
- Quality Assurance and Control.
- Health, Safety, and Environment (HSE) Departments.

Course Offerings:

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

- Master the fundamental principles of sustainable design and green building construction.
- Navigate the LEED v4.1 rating system, its credit categories, and prerequisites.
- Develop effective strategies for sustainable site selection and development.
- Analyze and implement water and energy efficiency measures in building projects.
- Evaluate and select sustainable materials and resources to reduce environmental impact.
- Manage the LEED documentation and submission process for project certification.
- Integrate indoor environmental quality (IEQ) strategies for occupant health and well-being.
- Conduct a basic life cycle assessment (LCA) for building materials.
- Apply green building project management techniques from inception to completion.
- Identify innovation in design and regional priority credits for specific projects.

Course Methodology:

This training course employs a dynamic and interactive learning methodology designed for maximum knowledge retention and practical application. At BIG BEN Training Center, we believe in learning by doing. The program is structured around a blend of expert-led presentations, in-depth technical sessions, and collaborative group workshops. Participants will engage with real-world case studies of successfully certified LEED projects, analyzing the strategies and challenges involved. Interactive exercises will allow teams to work through credit calculations, material selection scenarios, and documentation requirements. The methodology emphasizes a participatory environment where open discussions and Q&A sessions are encouraged, allowing learners to address specific challenges related to their own projects. Practical simulations of the LEED certification process will provide a hands-on experience, bridging the gap between theory and on-the-ground implementation. Feedback is a continuous process, with instructors providing guidance and clarification throughout the five-day program to ensure all participants achieve the learning objectives.

Course Agenda (Course Units):

Unit One: Foundations of Green Building and Sustainability

- Introduction to Sustainable Development and Construction.
- The Environmental Impact of the Built Environment.
- Core Principles of Integrated Design Process (IDP).
- History and Evolution of Green Building Rating Systems.
- Overview of the U.S. Green Building Council (USGBC) and LEED.
- Deep Dive into the Structure of LEED v4.1 Rating Systems (BD+C, ID+C, O+M).
- Understanding LEED Prerequisites, Credits, and Point Thresholds.

Unit Two: LEED Location, Site, and Water Efficiency

- Location and Transportation (LT) Credit Category Analysis.
- Strategies for Sustainable Site Selection and Development.
- Sustainable Sites (SS) Credit Category In-Depth Review.
- Techniques for Rainwater Management and Heat Island Reduction.
- Water Efficiency (WE) Credit Category and Prerequisites.
- Implementing Indoor and Outdoor Water Use Reduction Strategies.
- Process Water and Water Metering for Performance Measurement.

Unit Three: Energy, Atmosphere, Materials, and Resources

- Energy and Atmosphere (EA) Credit Category and Prerequisites.
- Fundamentals of Building Energy Modeling and Performance.
- Strategies for Optimizing Energy Performance and Commissioning.
- Renewable Energy Integration and Green Power.
- Materials and Resources (MR) Credit Category Overview.
- Building Life-Cycle Impact Reduction and Product Disclosure (EPDs, HPDs).
- Sourcing of Raw Materials and Construction Waste Management.

Unit Four: Indoor Environmental Quality and Project Management

- Indoor Environmental Quality (EQ) Credit Category and Prerequisites.
- Strategies for Enhancing Indoor Air Quality (IAQ).
- Optimizing Thermal Comfort, Lighting, and Acoustics.
- Using Low-Emitting Materials for Healthier Interiors.
- Managing a LEED Project from Pre-Design to Post-Occupancy.
- Roles and Responsibilities of the LEED Project Team.
- Navigating the LEED Online Platform for Documentation and Submission.

Unit Five: Innovation, Regional Priority, and Advanced Topics

- Innovation (IN) Credit Category and Exemplary Performance.
- Understanding and Applying for Regional Priority (RP) Credits.
- Introduction to Life Cycle Assessment (LCA) and Costing (LCC).
- Exploring Net-Zero Energy, Water, and Waste Buildings.
- The Future of Green Building and Emerging Trends.
- Preparing for the LEED Certification Review Process.
- Final Project Workshop: Simulating a LEED Project Submittal.

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 green building standards evolve, how might the concept of 'sustainability' be redefined to include social equity and community well-being beyond just environmental metrics?

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

This course distinguishes itself by focusing intensely on the practical implementation of LEED v4.1, moving beyond mere theoretical understanding or exam preparation. While many programs cover the 'what' of green building, our curriculum is meticulously designed to teach the 'how'. We bridge the critical gap between knowing the LEED credit requirements and possessing the project management skills to achieve them on time and within budget. The content is rooted in real-world applicability, utilizing up-to-date case studies of complex projects that showcase both successes and challenges in sustainable construction. Our approach emphasizes the integrated design process, teaching participants how to foster collaboration among architects, engineers, and contractors from day one. Furthermore, the course delves into advanced topics like life cycle assessment and net-zero principles, providing a forward-looking perspective that equips professionals not just for today's standards but for the future of the industry. The interactive workshops and simulation of the LEED Online submission process provide a unique, hands-on experience that builds confidence and true competence in managing sustainable building projects.