

GREEN BUILDING SERVICES TRAINING & EDUCATION

INTENT

Green Building Services Building Insights® Training creates capacity within organizations and individuals to apply green building and LEED. We leverage our direct experience on hundreds of projects to provide training products that are distinguished by their quality, delivery and value to our clients.

GBS INSTRUCTORS

GBS is a multi-disciplinary consulting firm comprised of experts in the fields of architecture, engineering and commissioning, interior design, energy, planning and environmental management. Our training instructors are all qualified through an internal GBS Faculty Program to ensure that our content and delivery method meets or exceeds your learning objectives. GBS also has five LEED Faculty on staff qualified to deliver seven different LEED Workshops.

CONTINUING EDUCATION

GBS is a registered provider of AIA and BOMI continuing education and GBS trainings typically qualify for Health, Safety and Welfare and Sustainability credits. GBS is also a Volume Education Provider under the USGBC's new Education Provider Program and is actively pursuing EPP status for a majority of its trainings. Courses marked with "EPP" are currently registered and can be found at www.greenbuild365.org.

CURRENT GBS TRAININGS

This is a list of GBS current training offerings. We update our trainings regularly to ensure that they include the most recent green building advancements, applied project examples and other variables that influence the application of green building. The list is followed by brief descriptions of each training. Don't see a training that fits your needs? The breadth and depth of our expertise allows us to customize these offerings or create a client-specific training that meets your needs. Please contact GBS Training Manager Terry Miller at 503-467-4745.



GBS TRAINING LIST

GREEN BUILDING MARKET

- The Cost and Value of Green Building (EPP)

TECHNICAL SERVICES

- Analytical Tools and Techniques to Achieve Exemplary Building Performance
- Building Commissioning: the Value Proposition, Process and Strategies
- Understanding, benchmarking and optimizing Carbon as a sustainability metric in the built environment
- Building Energy Auditing to Cost-Effectively Optimize Existing Building Energy Performance (EPP)
- Energy Modeling Analysis to Optimize Design for Energy Performance

BUILDING MANAGEMENT SOLUTIONS (Existing Buildings)

- Benchmarking Building Performance Using LEED for Existing Buildings: Operations and Maintenance (EPP)
- Understanding Green Materials and Purchasing
- Strategies to Mimic Natural Hydrology in Existing Buildings
- Clean and Green: Custodial Practices and Products to Support Healthy Environments

PLANNING, DESIGN AND CONSTRUCTION

- Planning & Site Strategy to Achieve Exemplary Performance and LEED for Neighborhood Development
- Greening the Campus: Green Building and LEED Strategy for Campus-scale, Mixed-use and Multiple-building Projects
- Analytical Tools and Techniques to Achieve Exemplary Community and Building Performance (EPP)
- Creating Healthy Spaces for People (EPP)
- ABC's of Schools: Green Building Strategy to Create Healthy, Productive and Efficient Learning Environments
- Healthy People, Healthy Bottom Line: Applying Green Building and LEED in Healthcare Facilities
- Using LEED on Historic Projects
- Energy Opportunities in New Construction and the Operation of Hi-Tech Facilities
- Applying Green Building and LEED to Building Portfolios
- Greening Retail Environments and the LEED for Retail Rating System
- Sustainable Tenant Improvements and the LEED for Commercial Interiors Process
- The Living Building Challenge

PROFESSIONAL ROLE IN GREEN BUILDING

- Greening the Green: Landscape Planning and Maintenance to Support Green Building and LEED Certification
- The General Contractor's Role in Green Building and LEED Projects
- Engineering Green: How (Civil, Structural, MEP) Engineers Can Play an Effective Role in Green Building
- Green Building Innovation and Communication for Product Manufacturers

USGBC & LEED

- 2009, Managing the Transition: LEED 2009 & Professional Accreditation (EPP)
- LEED Exam Prep Programs
- USGBC LEED Workshops

GBS TRAINING DESCRIPTIONS

GREEN BUILDING MARKET

The Cost and Value of Green Building (EPP)

- Live Presentation, Live Webinar
- 2 hours, ½ day

This program discusses the rationale and adoption of green building by the marketplace and provides an in-depth look at green building costs and value. Participants will gain a comprehensive understanding of the green building value proposition, where incremental costs are born and how 'costs' can be logically redefined as investments in evaluating buildings and portfolios.

TECHNICAL SERVICES

Analytical Tools and Techniques to Achieve Exemplary Building Performance

- Live Presentation, Live Webinar, Self-direct Webinar (on-demand)
- 1 hour, ½ day, full day

This program provides a survey of current analysis tools and methods available to provide quantitative support for early design and construction decisions that impact building performance. Participants will learn about evolving techniques for bio-climatic analysis, energy simulation, daylight simulation and computational fluid dynamics, including case studies and software demonstrations.

Understanding, benchmarking and optimizing Carbon as a metric for sustainability performance in the built environment

- Live Presentation, Live Webinar
- ½ day

This training provides foundational knowledge of why carbon is an effective sustainability metric in the built environment and strategy to systematically reduce organizational carbon impact. Participants will learn how the design, construction and operation of the built environment influences the natural carbon cycle and a methodology and strategies to create accurate baselines of the carbon impact of an organization's built assets. The training concludes with approaches to identify, prioritize, plan, execute and track carbon reduction measures within the organization's existing capital and operating framework.

Building Commissioning: the Value Proposition, Process and Strategies

- Live Training, Live Webinar
- ½ day

This program focuses on the process, scope and value of the commissioning process in both LEED and non-LEED projects. Owners, facility teams, architects and designers will learn how a well planned and executed commissioning process relates to their role and adds value to new construction and existing building projects.

Building Energy Auditing to Cost-Effectively Optimize Existing Building Energy Performance (EPP)

- Live Training, Live Webinar
- ½ day

This program details a process to systematically identify, evaluate, prioritize and execute building energy improvements. Delivered from the perspective of GBS' commissioning authority, participants will learn about the process of energy optimization in existing buildings, ASHRAE audit protocol and how these topics relate to LEED-EB OM.

Energy Modeling Analysis to Optimize Design for Energy Performance

- Live Training, Live Webinar
- ½ day

This training describes the integration of energy modeling analysis into the design process as a means to inform architectural design decisions. The value of energy modeling extends beyond the prediction and validation of energy system performance on the performance of the whole building. Coupling strategic analysis of modeling outputs as related to building placement, context, orientation and design with energy system performance enables greater accountability and higher performance potential. Participants will gain an understanding of the most critical variables in the energy modeling and analysis process and more effective methods by which to analyze and respond to modeling outputs.

BUILDING MANAGEMENT SOLUTIONS (Existing Buildings)

Benchmarking Building Performance Using LEED for Existing Buildings: Operations and Maintenance (EPP)

- Live Training, Live Webinar, Self-directed Webinar (on-demand)
- 2 hours, ½ day, full day

This program provides a methodology by which to cost effectively optimize existing building sustainability performance using the LEED-EB OM rating system. Participants will learn about the LEED-EB OM Rating System and the process to benchmark current performance, identify and prioritize enhancement strategies and successfully implement them.

Understanding Green Materials and Purchasing

- Live Training, Live Webinar
- ½ day

This program provides an overview of criteria that help to define a ‘sustainable’ material and how to apply them in materials selection for existing building rehabilitation projects and ongoing operations. Participants will learn how to evaluate materials for sustainability, understand how materials are addressed by the LEED-EB:O&M and ID&C programs and will see how some common building products have been transformed to be ‘green’.

Strategies to Mimic Natural Hydrology in Existing Buildings

- Live Training, Live Webinar, Self-directed Webinar (on-demand)
- 2 hours

This program uses the fundamentals of natural hydrology as a foundation to discuss process and green building strategies to improve the water performance of existing buildings. Participants will learn how to identify “target areas” for improvement and to evaluate the cost and performance impacts of prospective strategies.

Clean and Green: Custodial Practices and Products to Support Healthy Environments

- Live Training, Live Webinar, Self-directed Webinar (on-demand)
- 1.5 hours

This program covers how custodial policy, practice and products can support ongoing green building performance and LEED-EB OM certification. Participants will learn how janitorial practice impacts people and building performance and a framework for incrementally institutionalizing better practices.

PLANNING, DESIGN AND CONSTRUCTION

Planning & Site Strategy to Achieve Exemplary Performance and LEED for Neighborhood Development

- Live Presentation, Live Webinar
- 2 hours

This program addresses the linkage between district, neighborhood and site scale planning and design decisions on building performance. Participants will learn about tools available to support planning and design of communities to support both community and building scale sustainability performance in the context of the LEED for Neighborhood Development Rating System (pilot until 2010).

Analytical Tools and Techniques to Achieve Exemplary Community and Building Performance (EPP)

- Live Presentation, Live Webinar, Self-direct webinar
- ½ day

Transportation-related carbon can readily double that of buildings and stems directly from planning-level decisions. Further, achieving the next increment of exemplary performance at the building-scale starts with an analytical approach to siting, orientation and climatic variables. This session will cover how to use analysis tools to make planning and site-level design decisions, including in-depth discussion of new developments in bio-climatic analysis, analyzing potential for district heating, cooling and power generation systems, and water resource assessment.

Greening the Campus: Green Building and LEED Strategy for Campus-scale, Mixed-use and Multiple-building Projects

- Live Presentation, Live Webinar
- 2 hours, ½ day

This program addresses green building and LEED certification opportunities unique to campus-scale environments. Participants will learn about district and site level strategies to optimize campus and single building performance as well as how to use the LEED Application Guide for Multiple Buildings and On-campus Projects.

Creating Healthy Spaces for People (EPP)

- Live Presentation, Live Webinar
- 2 hours, ½ day

This program addresses planning and design strategies to create interior environments that are optimized to support occupant health, well-being and productivity. Using the triple bottom line as the primary measure of success, participants will understand the ways in which healthy spaces can lead to increased productivity and survey design issues such as lighting, thermal comfort, space design and biophilia. The program also includes case studies to illustrate the presented concepts and strategies.

ABC's of Schools: Green Building Strategy to Create Healthy, Productive and Efficient Learning Environments

- Live Presentation, Live Webinar
- 1 hour, ½ day

This program addresses the Attributes, Benefits and Challenges to the application of green building in schools. Participants will understand the parameters unique to defining 'green' in schools, the most critical influencing variables on building and occupant performance throughout the school's life-cycle and green building strategy to meet multiple objectives.

Healthy People, Healthy Bottom Line: Applying Green Building and LEED in Healthcare Facilities

- Live Presentation, Live Webinar
- ½ day

This program covers how green building can be applied within the strict parameters of the healthcare environment to maximize employee, patient and building performance. Participants will learn how to prioritize, evaluate and address the most influential variables on life-cycle performance while balancing multiple objectives and constraints.

Using LEED on Historic Projects (EPP)

- Live Presentation, Live Webinar
- 4 hours

This program uses the tenets of historic preservation to identify and explore synergies between historic preservation and green building. Participants will understand the challenges and alignment between preservation and sustainability in buildings and learn successful approaches for greening historic projects.

Energy Opportunities in New Construction and the Operation of Hi-Tech Facilities

- Live Presentation, Live Webinar
- 1.5 hours

This program focuses on the application of green building and LEED in hi-tech facilities. Participants will learn the primary opportunity areas to enhance occupant and building performance given the unique conditions of hi-tech environments.

Applying Green Building and LEED to Building Portfolios

- Live Presentation, Live Webinar
- ½ day

This program will address how to efficiently apply green building and pursue LEED certification for existing and/or growing building portfolios. Participants will gain insight into how to optimize the green building approach for different Portfolio scenarios and an understanding of the LEED tools available to support certification.

Greening Retail Environments and the LEED for Retail Rating System

- Live Presentation, Live Webinar
- 1.5 hours, ½ day

This program addresses the challenges and opportunities unique to applying green building to retail environments. Participants will learn how to identify and pursue high and multi-impact green building strategies that address retailer, shopper and employee performance as well as how to apply the LEED for Retail rating system at the single building or portfolio scale.

Sustainable Tenant Improvements and the LEED for Commercial Interiors Process

- Live Presentation, Live Webinar
- 2 hours

This program outlines how tenants can integrate green building into their space selection, design, construction and operation decision-making processes using the LEED-CI rating system as framework. Participants will gain a detailed understanding of the LEED-CI rating system and strategies to implement at critical decision-making points that maximize green building and LEED performance.

The Living Building Challenge

- Live Presentation, Live Webinar
- 2 hours, ½ day

This program is a thorough review of the intent, requirements and application of the Living Building Challenge. Participants will learn how the shift from lower impact to truly restorative intentions in a project necessitates a corresponding change in planning, design and construction strategies.

PROFESSIONAL ROLE IN GREEN BUILDING

Greening the Green: Landscape Planning and Maintenance to Support Green Building and LEED Certification

- Live Presentation, Live Webinar
- 2 hours, ½ day

This program covers how to incorporate green building and LEED into the planning and maintenance of landscapes to optimize their relationship to people, buildings and the environment. Participants will learn how green building and site performance is influenced by landscape decisions, strategies to support green building and project/campus LEED performance and how these roles can effectively insert themselves into the green design process.

The General Contractor's Role in Green Building and LEED Projects

- Live Presentation, Live Webinar
- 2 hours, ½ day, full day

This program addresses the role of the general contractor in green building and LEED projects. Participants will learn how the general contractor can work with the project team to support early sustainable design decisions, contractor LEED scope and responsibilities during design, construction and pre-occupancy and tools and methods to support a successful project.

Engineering Green: How (Civil, Structural, MEP) Engineers Can Play an Effective Role in Green Building

- Live Presentation, Live Webinar
- 2 hours, ½ day

This program addresses how engineers can proactively engage and support the green design and LEED process. Participants will learn when and how green building and LEED can be integrated into the engineer's scope of work, how to effectively identify and evaluate green design scenarios with the project team and some of the latest engineering strategies to achieve exemplary green building performance.

Green Building Innovation and Communication for Product Manufacturers

- Live Presentation, Live Webinar
- 1 hour, ½ day

This program covers the how product manufacturers can evaluate, augment and market their products to address core sustainability criteria. Participants will learn how the green building market defines green products, what certification options are available, how to accurately communicate green product characteristics and survey recent product innovations.

USGBC & LEED

Managing the Transition: LEED 2009 Certification & Professional Accreditation (EPP)

- Live Presentation, Live Webinar
- 1 hour, ½ day (EPP)

This program is a comprehensive overview of the new LEED 2009 rating system and the USGBC's new professional accreditation strategy. Participants will gain a detailed understanding of how LEED 2009 will impact their projects, how to communicate these changes to clients and how the new accreditation and maintenance program impacts current and future LEED-APs.

LEED Exam Prep Programs

GBS' LEED exam preparation blends our project experience and insight gained as authors of the LEED 2009 Exam Prep Study Guides to create a practical, fun and focused exam preparation experience. Our exam preparation training helps participants to contextualize the content, hone their study efforts to the most relevant content and sit the exam with confidence.

- Live Presentation, Live Webinar
- Full day or 8 hours with multiple sessions

LEED Green Associates Professional

The LEED Green Associate creates a credible accreditation option for individuals that indirectly support green building and LEED projects (i.e. administrators), but that do not directly apply green building practices. The intent of this accreditation is to provide third party validation of general knowledge of green building practices and LEED and the ability to support green design, construction and operations. Importantly, LEED Green Associates accreditation is also required for any professional that pursues LEED AP+ status under the LEED 2009 system. This exam is now available.

Audience: Green Associates: currently non-accredited practitioners pursuing LEED-AP+ status and any non-practitioner that works in a development-related field

LEED AP with Specialty (LEED-AP+) AP O&M- August 7th, AP BD&C/ID&C- September 16th, AP ND, 2010

The LEED AP+ suite of accreditations (Building Design + Construction, Interior Design + Construction, Green Building Operations & Maintenance, Homes, Neighborhood Development) recognize green building and LEED competency specific to a given project type. The LEED AP+ accreditation is designed for professionals directly involved in applying green building and LEED (i.e. architects, engineers). Professionals must be a LEED-AP under version 2.2 or earlier or be a LEED Green Associate to sit any of the AP with Specialty exams.

Audience: Current LEED accredited professionals and non-accredited professionals that intend to take both the LEED Green Associates and Accredited Professional with Specialty exams.

USGBC LEED Workshops

- Live Presentation
- ½ day, Full Day

Green Building Services has five LEED Faculty approved by the USGBC to offer the following full and half-day USGBC Workshops:

Full Day

LEED Core Concepts & Strategies

LEED Technical Reviews:

- Green Building Design & Construction: The LEED Implementation Process
- Green Interior Design and Construction: The LEED Implementation Process
- LEED for Schools
- Green Building Operations & Maintenance: The LEED Implementation Process

Half Day

Green Building Basics and LEED

Understanding LEED Project Costs & Returns