



PUBLIC COURSE CATALOG

Built Environment Plus (BE+) public courses are open to participation from anyone, inside or outside of MA. We schedule these courses based on interest from the green building community. Complete our [Training Interest Form](#) to let us know which courses you and/or your firm are interested in attending.

MA-based firms with 100 or fewer employees are eligible to receive 100% funding for BE+ public courses from the Commonwealth of MA's [Workforce Training Fund Express Program](#).

If you are a BE+ Workforce Training Fund General Grant client (or would like to be), reach out to BE+ to request our General Program course catalog.

For more information on Built Environment Plus visit <https://builtenvironmentplus.org/>

Table of Contents

Green Building Rating System Courses.....4

- LEED Green Associate Exam Prep
- LEED Building Design & Construction (BD+C) Exam Prep
- LEED v4 Healthcare: An Expert's Synopsis
- LEED for MEP Engineers
- Navigating LEED v5
- Intro to WELL Building Standard
- WELL AP Exam Prep
- Designing for WELL: Strategies and Techniques for Achieving Certification
- Fitwel
- Intro to SITES
- Ecodistricts: A New Model of Urban Re-Generation
- Intro to Living Building Challenge
- The Living Building Challenge
- Passive House 101: An Introduction to Passive Buildings
- Passive House 201: Technical Aspects of Design & Construction
- Certified Passive House Consultant (CPHC) Training
- Phius Certified Rater Training
- Phius Certified Verifier Training
- Phius Certified Builder (CPHB) Training
- Certified Passive House Designer (PHI) Training

Sustainability Technical Courses.....7

- Buildings and Carbon
- “Easy” Wins for Embodied Carbon Reduction
- High Performance MEP System Design
- Sustainable Acoustics
- Intro to Designing a Net Zero Building
- Energy Codes and Trends
- Sustainable Lighting Design
- Daylighting
- Circadian Lighting and Light in the Night
- Intro to Healthy Materials
- Healthy Materials
- Healthy Materials Lab
- Building with Purpose: Selecting Green Materials (Lunchtime Series)
- Embodied Carbon in Concrete and Wood

- Practical Product Selection: Choosing Green Materials for Common Products
- Specifying Healthier Materials Beyond Just Checking Boxes
- Specifying Your Building Envelope to Meet the New Mass Energy Code
- Life Cycle Assessment & Environmental Product Declarations: What You Need to Know
- Neuro-Psychology of Architecture 101
- Neuro-Psychology of Architecture 201
- High-Performance Building for Carpenters
- High Performance Building Assemblies
- High Performance Building Assemblies Lab
- PV Design Basics
- Solar Decathlon Professionals Training

Software Courses.....11

- Tools for Building Life-Cycle Assessment (Tally)
- Achieving Whole-Building LCA and EPD Credits for LEED (One Click LCA)
- Phius WUFI® Passive Advanced Multifamily
- Phius WUFI® Passive Single Family

Leadership and Management Courses.....12

- Aligning Project Delivery with New Outcomes: Zero Carbon, AIA 2023, & Integrative Design Principles
- Communication Skills for Persuasion and Influence
- Effective Meeting Facilitation
- Design Charrettes: A Tool to Manage Cost, Optimize Synthesis, and Achieve Excellence
- Implicit Bias I: Implicit Bias Thinkshop
- Implicit Bias II: Architects = Allies + Accomplices
- Implicit Bias III: Practicing Undoing and Dismantling



Green Building Rating System Courses

Course Name	Hours	Course Description	Express ID#	Cost/Person
LEED Green Associate Exam Prep	8	This LEED Exam Prep Course is a comprehensive course which will prepare attendees for the Green Associate exam. The day long curriculum is designed to cover the segments of the Green Associate Exam and to lightly cover the AP specialty exams. It will be a fast-paced class for real estate professionals, architects, engineers, and anyone else interested in green building practices and LEED. The majority of attendees have little previous knowledge of the LEED rating system, green building operations and green building construction. Upon completion of the class you will be eligible to sit for the LEED Green Associate exam at a local testing center. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2748	\$699
LEED Building Design & Construction (BD+C) Exam Prep	8	With this LEED AP Building Design and Construction training, you will know the requirements and calculations required for the following LEED credits: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, and Indoor Environmental Quality. You'll learn and practice the three exam areas – Recognition, Application, and Analysis, as well as be able to identify the key components of the LEED BD+C Rating System. Upon completion of the class you will be eligible to sit for the LEED BD+C exam at a local testing center. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2610	\$699
LEED v4 Healthcare: An Expert's Synopsis	4	This LEED Healthcare training intended for building industry professionals will teach you how to set objectives, establish criteria and plan integrative processes to achieve effective project collaborations and advance LEEP IP aims, understand how common vocabulary helps to discover contrasting environmental, social and economic perspectives, identify stakeholder interests and support productive outcomes, activate self-awareness to recognize and manage personal emotional triggers that endanger or block integrative relationships, as well as using collaboration-focused questions in the search for excellence in high performance building design, delivery and operations to produce healthy and inspiring green environments. Online or in-person.	C-4803	\$699
LEED for MEP Engineers	2	This course provides an overview of the LEED Rating system's energy, indoor environmental quality and plumbing credits. It drills down into what building engineers need to know to optimize LEED certification. Students will gain an understanding of energy modeling criteria, building energy metering requirements, refrigerant management and grid harmonization strategies. They will learn the fundamentals of potable water-use reduction and water metering. Finally, they'll become familiar with indoor air quality and thermal comfort requirements while also diving into lighting, daylight and views. This course is intended for building design engineers. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2905	\$175
LEED v5: An Early Look	2	The LEED v5 training offers the opportunity to learn about the next iteration of the LEED green building rating system. The launch of LEED v5 began with LEED v5 for Operations and Maintenance (O+M) in September 2023. LEED v5 for Building Design and Construction (BD+C) will roll out in 2024. This training will take attendees on a guided tour of the new structure of the rating system, including an understanding of the integrated approach in LEED v5 for addressing the key issues of scale, decarbonization, health and well-being, resilience, equity, and biodiversity. This course will delve into the intricacies of the new version of LEED and highlight the key changes and enhancements that have been made.	—	—
Intro to WELL Building Standard	2	The Introduction to the WELL Building Standard provides an overview of the WELL Building Standard ideology, structure, and certification process. The medical basis for the concept categories is introduced along with design and construction strategies to create healthy buildings. This training will introduce how to reinvent buildings that are better for both people and the planet using the WELL Building Standard as the framework. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2568	\$175
WELL AP Exam Prep: Part 1	4	The new WELL AP exam will evaluate your practical knowledge and understanding of WELL v2. Part 1 of the course will help you prepare for the new WELL AP exam by identifying the reference documents which the WELL AP exam is based on. Part 1 of the course will cover in depth the knowledge and skills needed to prepare for the WELL AP exam across the first 5 of 11 content areas (the 10 WELL v2 concepts and their features, and WELL certification). Lastly, this course will review what to expect from how the new WELL AP exam is structured, and the types of questions to anticipate. Upon completion of the course, it is strongly recommended to continue studies with the guidance and content covered within the course prior to sitting for the WELL AP exam. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2569	\$350

Green Building Rating System Courses

Course Name	Hours	Course Description	Express ID#	Cost/Person
WELL AP Exam Prep: Part 2	4	The new WELL AP exam will evaluate your practical knowledge and understanding of WELL v2. Part 2 of the course will help you prepare for the new WELL AP exam by covering in depth the knowledge and skills needed to prepare for the WELL AP exam across the remaining 6 of 11 content areas (the 10 WELL v2 concepts and their features, and WELL certification), picking up on what was not covered in Part 1 of this course. Lastly, this course will review what to expect from how the new WELL AP exam is structured, and the types of questions to anticipate. Upon completion of the course, it is strongly recommended to continue studies with the guidance and content covered within the course prior to sitting for the WELL AP exam. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2570	\$350
Designing for WELL: Strategies and Techniques for Achieving Certification	4	The WELL Building Standard provides evidence-based design practices to improve human health through the physical and social environments we work, learn, and live in. As owners and developers increasingly seek WELL certification on their projects, designers are being asked to incorporate WELL principles into their plans. This class will teach designers what it takes to deliver a successful WELL project. Attendees will participate in a virtual course led by WELL Faculty with active projects and a track record of certification. The course presentation will include an outline of WELL requirements for designers, case studies, and discussion.	—	—
Fitwel	2	Fitwel is a building rating system for commercial interiors and both multi-tenant and single-tenant existing buildings that provides guidelines on how to design and operate healthier buildings. Fitwel addresses health as an interconnected system, with no single dominant category or area of focus, and as such all strategies are voluntary. The course will cover the Fitwel Scorecards, Fitwel Star System and the seven Health Impact Categories. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2763	\$175
Intro to SITES	2	The Sustainable SITES Initiative is the most comprehensive system for creating sustainable and resilient land development projects. Land is a crucial component of the built environment and can be planned, designed, developed and maintained to protect and enhance the benefits we derive from healthy functioning landscapes. Participants will learn how to create ecologically resilient communities and benefits the environment, property owners, and local and regional communities and economies. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2611	\$175
Ecodistricts: A New Model of Urban Re-Generation	4	In this workshop intended for building industry professionals, you'll discover a framework to transform existing neighborhoods through the lens of Equity, Resilience and Climate Change and a process to create a roadmap and structure for communities to move forward. The EcoDistrict processes a template for bringing together community leaders, developers, architects and planners to envision and create sustainable neighborhoods, working at the district or neighborhood scale. The EcoDistrict Protocol has been successfully used in a number of communities, ranging from new community development projects to existing densely populated neighborhoods, to build a community vision and plan for how to meet that vision. Can be held virtually/in-person.	C-2588	\$350
Intro to Living Building Challenge	2	This training course will provide an overview of the Living Building Challenge - a philosophy, advocacy tool and certification program that addresses development at all scales. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2652	\$175
The Living Building Challenge	4	With this training you will learn the basic knowledge of the Living Building Challenge - a philosophy, advocacy tool and certification program that addresses development at all scales. The Living Building Challenge is the built environment's most rigorous performance standard. It calls for the creation of building projects that operate as cleanly, beautifully and efficiently as nature's architecture. To be certified projects must meet a series of ambitious performance requirements, including net zero energy and waste and water, over a minimum of 12 months of continuous occupancy. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2608	\$350
Passive House 101: An Introduction to Passive Buildings	2	In this course, we will provide an overview of the Passive House building standard including certification metrics, common design elements, and net-zero potential, as well as the impacts Passive House has on carbon and health. Examples of various building types will be presented and information on funding opportunities will be provided. Get your questions answered on what Passive House is and how to achieve it, and see how it is expanding throughout the state and region. Both standards will be discussed.	C-2571	\$175
Passive House 201: Technical Aspects of Design & Construction	2	This session will take a deeper look into common design & construction strategies for achieving the Passive House standard. Concepts will include building envelope & insulation, air tightness, thermal bridging, testing & verification, and mechanical systems. A brief review of Passive House basics will be included, though some familiarity is recommended. Both standards will be discussed.	C-2572	\$175

Green Building Rating System Courses

Course Name	Hours	Course Description	Express ID#	Cost/Person
Certified Passive House Consultant (CPHC) Training	24	Phius Certified Consultant (CPHC®) training teaches students how to apply passive building principles in a cost-optimized, climate-specific manner. The training is geared toward architects, engineers and design professionals who want to take their high-performance building expertise to the next level. Projects earning Phius certifications (Phius CORE, Phius ZERO and Phius REVIVE) follow RESNET QA/QC protocols and achieve excellent HERS scores, US Department of Energy Zero Energy Ready Home status, and adhere to EPA indoor airPLUS requirements. The cost of the certification exam is not covered by the Express Grant Program, and must be paid for out-of-pocket by the company.	C-2542	\$2,100
Phius Certified Rater Training	9	Phius Certified Raters focus on single-family residential projects. The course is geared toward experienced RESNET and BPI professionals, and provides grounding in passive building principles as well as a guide to onsite quality assurance for the Phius Certification program. This training is delivered live, online over three days. Each session is three hours. Training is open to all. Knowledge of HERs rating practices, and experience with Energy Star Homes, Indoor airPLUS and DOE ZERH Programs is helpful. Those who wish to pursue certification after training must meet the certification exam prerequisites, as well as apply and be approved to complete the exam. The course is a combination of presentation and discussion.	C-3770	\$750
Phius Certified Verifier Training	9	Phius Certified Verifiers deliver on-site quality assurance for multi-family residential and non-residential passive building projects. This course is geared toward HERs Raters testing and commissioning multifamily buildings and professionals familiar with non-residential buildings. Training provides grounding in Phius building principles and onsite quality assurance for the Phius Certification program. Knowledge of HERs rating practices, Energy Star Homes, Indoor airPLUS and DOE ZERH Programs is helpful. Those who wish to pursue certification after training must meet certification exam prerequisites and be approved to complete the exam. This training is delivered live online and is a combination of presentation and discussion.	C-3896	\$750
Phius Certified Builder (CPHB) Training	24	The Phius Certified Builder Certification is for tradespeople and construction professionals with field experience in construction and/or high performance building. This training prepares construction professionals to understand passive building techniques — airtight enclosures, high-performance window installation, passive design strategies, field quality assurance, and site management. For a project pursuing Phius Certification, these professionals ensure the building is built and operating to the plans and specifications. They are responsible for executing air-sealing and thermal bridge mitigation. This training is delivered live, online over 8 days. The cost of the certification exam is not covered by the Express Grant.	C-4262	\$2,100
Certified Passive House Designer (PHI) Training	16	This course provides tools, techniques and tips for how to build via passive house principles for all building types, diving into Passive House building concepts and building a foundation of knowledge and skills to integrate PHI building design standards into building projects. This course is specifically designed to teach the international Passive House Standard (PHI) to design and construction professionals in the U.S. and is required prior to taking the CPHD/C professional certification exam. It can be held online or in person, and is a combination of presentation and discussion. An additional fee for course materials and the certification exam is not covered by the Express Grant and must be paid for out-of-pocket by the company.	C-2881	\$2,295

End of Section

Sustainability Technical Courses

Course Name	Hours	Course Description	Express ID#	Cost/Person
Buildings and Carbon	4	This course will focus on how we as practitioners can reduce the climate impacts associated with carbon emissions from the built environment. It will emphasize the importance of goal setting and identifying strategic actions to manage greenhouse gas emissions throughout a building's life cycle, including the operational phase, with a particular focus on embodied carbon. The course will begin with an exploration of the context of climate emissions from the built environment, covering topics including: the global carbon cycle and its relationship to the built environment; operational carbon, grid emission factors and building electrification, and emission reduction strategies beyond energy efficiency; embodied carbon, carbon storage, and the "time value" of carbon; and solutions for material selection, supply chain engagement, and policy engagement for addressing the climate impact of the built environment. Next, the course will explore applied strategies in the context of a design practice, covering topics including: goal setting and metrics of success; methodologies and strategies for conducting carbon analysis throughout the design process; carbon accounting tools, databases, and other resources to conduct embodied carbon analysis; and evaluating design workflows for opportunities to take action in carbon reduction in design and procurement. Finally, the course will guide participants through a facilitated discussion in which key barriers to and opportunities for implementing carbon reduction strategies in participants' practices are identified, discussed, prioritized, and formulated into an actionable list for participants to reference moving forward to actualize real carbon reduction in their work. This course is intended for building industry professionals. It can be held virtually or in-person and combines presentation and discussion.	C-2573	\$350
"Easy" Wins for Embodied Carbon Reduction	2	There are many opportunities to reduce the embodied carbon of a building's design, but it can be hard to know where to start. Questions such as "What tools do I use?" "What if I've already started designing my project?" "How much will this all cost?" can easily stand in the way of taking action. In this presentation, the instructor will present a variety of proven strategies to reduce embodied carbon that can be implemented into your next – or even your current – project without requiring extensive LCA modeling. If you are looking to start implementing low carbon solutions into your projects and are looking for some strategies to get started, this is the presentation for you. Opportunities in the design process, in material selection, and in project specifications will all be addressed, as well as your questions. Join us and start reducing your project's embodied carbon footprint today! This course is intended for building industry professionals. It can be held virtually or in person and is a combination of presentation and discussion.	C-9368	\$175
High Performance MEP System Design	4	This course provides a conceptual overview of the different MEP systems with an emphasis on mechanical. We will look into different considerations when designing with MEP systems including: energy source, cost efficiency, longevity, sizing/modulation, location, infrastructure requirements, current regulations, considerations, designing with carbon as a priority, and electrification. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-3454	\$350
Sustainable Acoustics	2	Acoustics is a critical component in providing a comfortable listening environment for users and is recognized by several building rating systems for sustainability and health including LEED, WELL, Fitwel, and Passive House. We will overview various ways in which design can be applied to acoustics to extend green design concepts. We will discuss the ABCs of architectural acoustics and the importance of proper acoustic design to the comfort and wellness of occupants across different types of building uses. We will discuss design strategies to help achieve the acoustics requirements of various building rating systems throughout the design and construction process. Course intended for building industry professionals. Virtually or in-person.	C-2575	\$175
Intro to Designing a Net Zero Building	2	Participants will learn the components of net zero. It may seem out of reach, but firms are turning these hurdles into opportunities. Join us as we examine case studies, detailing integrated systems and creative solutions that make NZE a reality. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2590	\$175
Energy Codes and Trends	2	This course introduces current energy trends, required codes, and sustainability rating systems across the U.S. and the role of ENERGY STAR Portfolio Manager. You will hear from a sustainability expert at Green Building Services about current energy performance reporting trends including federal and municipal codes and guidelines. Through this training you will learn how to identify current energy regulations and energy performance reporting trends across the United States that impact the general welfare of the community, how to describe the role of Energy Star Portfolio Manager and how to implement this energy tracking and benchmarking tool into your property or project to promote all feasible means of energy conservation. This course can be held virtually or in-person, and combines presentation and discussion.	C-2587	\$175

Sustainability Technical Courses

Course Name	Hours	Course Description	Express ID#	Cost/Person
Sustainable Lighting Design	2	What makes for a good luminous environment? How does the quality of a luminous environment impact humans and ecosystems? This session introduces methods for designing lighting using core principles of perception and lighting to create lasting, energy efficient environments that equitably support people's biological and psychological needs, bring us joy, and minimize harm to other humans and non-humans. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2762	\$175
Daylighting	2	In this course, participants will achieve a basic understanding of daylighting design process. They will recognize the key metrics of digital daylighting analysis, including annual simulations and glare analysis, as well as understand the basics of IES LM-83 and how it has set the standard criteria for various sustainable rating systems. Additionally, participants will utilize daylighting design strategies for architectural practice and cite examples from case studies. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2764	\$175
Circadian Lighting and Light in the Night	2	Biological systems have adapted over billions of years to the cycles of day and night. Circadian Lighting: Since we spend around 90% of our time indoors, our lighting design, for both electric luminaires and strategic use of daylighting, is of paramount importance for our health. Participants will learn the various properties of light that are important to consider for human health, and how these can be applied. Light in the Night: Electric lighting (Artificial Light at Night or ALAN) has disrupted the delicate balance of the quality of light at night, creating an epidemic of light pollution and squelching the darkness. In this course, we explore the the impact of site lighting on the night sky and ways to design exterior and site lighting that minimize this impact. Through high-level discourse, practical considerations and design strategies, and a review of the LEED and SITES light pollution credits, this course will provide building industry professionals with a grounding in sensitive approaches to electric lighting in the outdoor nighttime. This course can be held virtually or in-person and is a combination of presentation and discussion.	—	—
Intro to Healthy Materials	2	The workshop will highlight the trends and the tools available to find and select healthier products, including: - HPDs - Declare labels - C2C certification - Low-emitting materials Participants will learn the key product categories and how to research and find products that are better for the environment and building occupants. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2574	\$175
Healthy Materials	6	In this course, participants will learn which MR credits in LEED v4 your project can easily achieve, and what you need to know to get them. The MR credits in LEED v4 move us away from single-attribute product selection, and toward having a richer set of data to make more robust product selections. The following will be covered: - Product transparency and LEED - Health Product Declarations and Cradle to Cradle - Environmental Product Declarations - Sourcing of Raw Materials - Low-emitting materials, occupant health, and LEED - All About VOCs: content and emissions Intended for building industry professionals, course can be held virtually or in-person and is a combination of presentation and discussion.	C-2609	\$525
Healthy Materials Lab	4	This course requires students to roll up their sleeves and dive into Healthy Materials by applying concepts they learned in the H.M. courses to their own work. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion. At the conclusion of the course participants will be able to : - Describe potential pathways that healthy materials follow from the selection process into projects - Explain how an integrated design approach can improve the material selection process - Explain strategies that designers can use to get products into specifications - Describe the challenges posed by value engineering and the impacts of regrettable substitutions	C-4800	\$350

Sustainability Technical Courses

Course Name	Hours	Course Description	Express ID#	Cost/Person
Building with Purpose: Selecting Green Materials (Lunchtime Series)	6	This multi-session series highlights concepts and trends in green material selection and reviews tools available to find healthier, lower-carbon products that are better for the environment and better for building occupants. Attendees will learn how to find greener products among the numerous material options, databases, certifications and rating systems. The series covers healthy materials concepts, chemicals of concern, and materials pledges; materials databases and documentation; embodied carbon; ESG topics for materials selection; and practical product selection for common products. This course is for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-7661	\$525
Embodied Carbon in Concrete and Wood	2	This course looks at the carbon and environmental impacts of concrete and wood building materials, how they have improved over the years, and where they still fall short. The course will focus on concrete's carbon emissions problem and solutions, cement and concrete alternatives, building code changes, and wood building materials (including mass timber and other engineered products). Forestry's carbon accounting and environmental impacts are complicated and in flux - the training will also dig in to some of those challenges, the state of forestry certifications, and life-cycle data/EPDs. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-5004	\$175
Practical Product Selection: Choosing Green Materials for Common Products	2	How do you find healthier, lower-carbon products among the numerous material options, rating systems, databases, and certifications? This course provides an overview of material choices in a couple of key product areas—insulation and resilient flooring in particular. Participants will learn the material health concerns of the product areas and will learn the basics of how to find better options. Built roughly around AIA's Architecture and Design Materials Pledge framework, the course is a first step towards learning about product selection. The methodologies learned can then be applied to other product areas.	—	—
Specifying Healthier Materials Beyond Just Checking Boxes	2	Specifying materials that meet LEED requirements has gotten easier. However, many projects stop at just meeting these requirements, when we could be doing much better. The course will provide information on specifying products and materials that are Living Building Challenge red list free, avoiding chemicals of concern from the Six Classes, specifying products with transparency labels, and finding healthier products through third-party certifications and publicly available databases. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-9006	\$175
Specifying Your Building Envelope to Meet the New Mass Energy Code	2	The MA energy code is complex and has presented challenges for many project teams. This session will cover some common project types and focus on what you need to do early in the project to successfully meet new building envelope requirements in your specifications. We will provide examples and share envelope value ranges that successfully meet the new code requirements. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-9190	\$175
Life Cycle Assessment & Environmental Product Declarations: What You Need to Know	4	Through this course for building industry professionals, you will learn the promise and pitfalls of LCA and EPDs, compare how the Living Building Challenge, Living Product Challenge, LEED and Green Globes address them and examine related advocacy opportunities, how to outline the history of political debate that surrounds LCA of building materials and emerging trends of environmental product declarations within the green building industry, and how to explain how various green building and product certifications are driving increased transparency about environmental impacts of building materials with a particular focus on LEED®, the Living Building Challenge and the Living Product Challenge. Course can be held virtually or in-person.	C-2576	\$350
Neuro-Psychology of Architecture 101	3	This course introduces architects to key ideas in neuroscience and psychology that transform our understanding of how buildings impact people. A key theme of the class is how subliminal, non-conscious behaviors, preset by evolution, provide the foundation for all architectural experience. The course reviews biometric tools, including eye tracking and facial expression analysis, showing how they give designers a new lens to 'see' our subliminal nature, and, by so doing, can be used to improve design outcomes, promoting individual and community health and well-being.	—	—
Neuro-Psychology of Architecture 201	3	This course, Part II of the Neuro-Psychology of Architecture, delves further into key insights from neuroscience and psychology that transform our understanding of how architecture impacts people and how knowing them can improve design outcomes. The session discusses colors, shapes and symmetries, and how our responses are more hardwired than most realize. It includes discussion of 'narrative', how our brain is hardwired for story-telling, and why this is significant for architecture and urban planning.	—	—

Sustainability Technical Courses

Course Name	Hours	Course Description	Express ID#	Cost/Person
High-Performance Building for Carpenters	20	This in-person training teaches carpenters how to apply fundamental building skills to high-performance construction projects. Topics focus on the four layers of a high-performance house: water, air, vapor, and thermal. Students will learn high-performance essentials through building science lessons, hands-on practice with mock-up assemblies, and project management training. The multi-faceted learning approach provides carpenters with a holistic understanding of high-performance construction from building science to install. This training is taught by two sustainable building experts accompanied by guest speakers representing materials manufacturers and vendors.	C-3152	\$2,800
High Performance Building Assemblies	6	Why high-performance assemblies? And why now? Today we demand better thermal performance from our building assemblies than ever. But higher performance comes at a price: Designers and builders must pay attention to hundreds of hidden components. Things like corner joints. Window flashing. Hundreds of beads of sealant and runs of tape. Poorly designed, specified, or installed details in these areas can burden building owners with moisture and mold problems... façades falling to pieces... and drafty interiors that send tenants packing — sometimes, even suing.	—	—
High Performance Building Assemblies Lab	2	This takes each of the principles covered in the course content and implements the principles in benchtop/plan set to work.	—	—
PV Design Basics	2	This course covers the basic information and considerations for the design of a building mounted solar PhotoVoltaic array, including building massing, optimized angle, estimation of kW, pedestrian access paths, funding mechanisms. This course can be held virtually or in-person and is a combination of presentation and discussion.	—	—
Solar Decathlon Professionals Training	15	The Solar Decathlon Professionals Training is designed to provide building industry professionals with an opportunity to further develop their building science expertise and gain practical experience designing zero energy projects. Weekly course topics include high-performance project planning and goal setting; passive design; zero energy building; building envelopes; HVAC systems; lighting; plug loads; life cycle analysis; retrofits; and renewable energy. This advanced level course is intended for early to mid-level professionals looking to advance their knowledge and skills; facility managers who want to understand building sciences for their role in supporting net zero energy buildings; and/or higher education faculty who want to teach building sciences in their programs. This course is a combination of presentation or discussion and can be held virtually or in person.	C-9005	\$299

End of Section

Software Courses

Course Name	Hours	Course Description	Express ID#	Cost/Person
Tools for Building Life-Cycle Assessment (Tally)	4	Life-cycle assessment (LCA) is a critical methodology that can be used by building design professionals to evaluate the climate impact of their projects. Participants will learn life-cycle assessment (LCA) terminology and basic concepts, how to incorporate LCA in design workflow, and how to conduct an LCA for a building project using the LCA tool Tally. Participants will be introduced to the Embodied Carbon in Construction Calculator (EC3) Tool, a free and open-source database of environmental product declarations (EPDs), and learn how Tally and EC3 can be used to inform specifications and achieve LEED points. The course is held virtually and is a combination of presentation, discussion, and in-session exercises.	C-2779	\$350
Achieving Whole-Building LCA and EPD Credits for LEED (One Click LCA)	2	This training provides an understanding of how to achieve whole-building LCA and EPD related credits on LEED projects. Attendees will learn how to easily handle the life cycle assessment process, as well as a comprehensive breakdown of LEED related credits and how to leverage One Click LCA for various LEED schemes. Learn the importance of embodied carbon calculations, the requirements of LCA credits in LEED v4 and v4.1, how to set baseline strategies in LEED v4 and v4.1, and common strategies for reducing building LCA impacts. The course is held virtually and is a combination of presentation, discussion, and in-session exercises.	C-4342	\$175
Phius WUFI® Passive Advanced Multifamily	8	WUFI Passive is a powerful tool that can enhance, streamline, and optimize the design and certification of passive building projects if integrated into the design process properly. This course is for multifamily WUFI Passive users that want to take their modeling to the next level - learning pro tips to ensure the full capabilities of the software are utilized – and concepts and skills learned can be applied to other building types. Students will explore tips to speed up and optimize modeling workflows – including insight on supplemental calculators and supporting tools to improve processes and streamline Phius Certification project submissions. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-8402	\$450
Phius WUFI Passive Single Family	10	WUFI Passive is a powerful tool that can enhance, streamline, and optimize the design and certification of passive building projects if integrated into the design process properly. This course is both for those learning WUFI Passive for the first time and those who learned WUFI Passive during the Phius Certified Consultant (CPHC) training but have not had a chance to apply the tool yet. Students will model a single family home from start to finish, learn the typical modeling workflow, and complete an individual design exercise with instructor guidance and critique. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-9666	\$450

End of Section

Leadership and Management Courses

Course Name	Hours	Course Description	Express ID#	Cost/Person
Aligning Project Delivery with New Outcomes: Zero Carbon, AIA 2030, & Integrative Design Principles	4	Are you a zero-carbon-capable design firm? Are you an AIA 2030 Signatory struggling to meet EUI reduction targets? Is your project delivery based on integrative design principles helping ensure consistently high performance? This session is a practical approach for building industry professionals to assess their current situation, set pragmatic goals for the future, and understand which processes need to be put in place in order to align project delivery with those goals. Case studies will be shared, and participants will leave with information that they can implement to differentiate themselves in an increasingly competitive market. This course can be held virtually or in-person and is a combination of presentation and discussion.	C-4889	\$350
Communication Skills for Persuasion and Influence	4	Many people start talking before their first birthday, so how come communication can be so difficult when we have so much experience? How can you evaluate the effectiveness of your communication style? How can you convince someone to do something? Sometimes the issue is between you and your team, and other times it is with a client or vendor. This workshop will help you build core communication skills to overcome resistance, strengthen your ability to influence others, and manage your emotions so they don't get in the way of communicating effectively. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-3584	\$350
Effective Meeting Facilitation	4	In this 4-hour course instructed by the Sustainable Performance Institute, you will learn the techniques needed to foster full team participation and engagement and understand what makes a meeting effective. You will also learn how to prepare for an effective team meeting, incorporate strategies for handling meeting challenges, and develop goals and desired outcomes. This course is intended for building industry professionals. It can be held virtually or in-person and includes instructor presentation as well as application to work situations.	C-3458	\$350
Design Charrettes: A Tool to Manage Cost, Optimize Synthesis, and Achieve Excellence	4	The demands for high performance, net zero, resilient design are growing. A key element to meeting these demands in the collaborative design process is the design "charrette" or workshop. Unfortunately, they often are underutilized and don't fulfill their full potential. This course is designed for owners, designers, and employees within the built environment industry who want to unlock the potential of their projects. Participants will leave with the strategies, templates, and guiding principles needed to use charrettes as a means of building effective teams, controlling costs, and coordinating strategies to keep projects on track. This course can be held virtually or in-person and is a combination of presentation and discussion.	C-3459	\$350
Implicit Bias I: Implicit Bias Thinkshop	3	This interactive session will feature a combination of brief presentations, group design, exercises, and facilitated, full-group discussions. The intent is for participants to deepen their knowledge and understanding of inclusivity and implicit bias in the broader employment market at this moment in time, within their organization, and in their own individual work. Implicit Bias I provides an overview. The focus of this workshop is to improve overall employee engagement and performance by maximizing inclusion and minimizing implicit bias in the workplace. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2639	\$265
Implicit Bias II: Architects = Allies + Accomplices	3	This interactive session will feature a combination of brief presentations, group design, exercises, and facilitated, full-group discussions. The intent is for participants to deepen their knowledge and understanding of inclusivity and implicit bias in the broader employment market at this moment in time, within their organization, and in their own individual work. Implicit Bias Part II encourages transparent discussion about the historical biases built into the design/building industry and what is required to dismantle these systems and move forward toward advocacy and allyship. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-2640	\$265
Implicit Bias III: Practicing Undoing and Dismantling	3	The Implicit Bias III training is an interactive, highly-participatory session that encourages self-reflection and accountability around individual bias and bias norms reflected in the culture of our workplace. The intent is for participants to explore the impact of their personal beliefs and actions, societal and industry culture, and various pathways to developing an equitable and inclusive mindset. This course is intended for building industry professionals. It can be held virtually or in-person and is a combination of presentation and discussion.	C-4996	\$265

End of Section