

Green Building Practices and LEED Green Associate Exam Preparation

Lorisweb.com

Kick-Off Meeting - September 11, 2024

Preparing for the LEED Green Associate Professional Credential

Introduction

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ZOOM Link: https://us02web.zoom.us/j/82775860795?pwd=IJhqpSjiw3ik46LO29RcSgZZxYS5Se.1

Day/Time: Wednesday (9/18 – 11/6) - 7:00 pm – 8:15 pm CT

Course Resources

https://lorisweb.com



home

Welcome to my Web site

You have come to the right location on the World Wide Web if you are looking for my LEED BD+C, LEED ND, LEED O+M, and LEED Green Associate Exam Preparation material, my construction management course material, and anything else posted here by me.





LEED Green Associate Exam - 8 Week Self Study Course < Back >

Schedule - Combination of "Self Study" followed by the 2 Day Instructor Led "Power Jam Study"

LEED Green Associate Exam - Reading Material

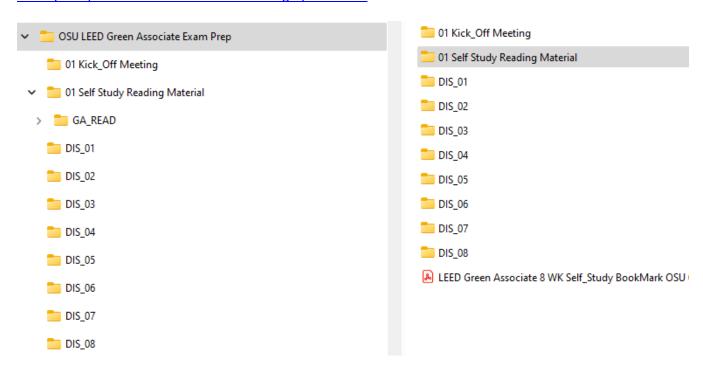
Self Study

Note: LCCG = GA01 LEED Core Concepts Guide. An Introduction to LEED and Green Building. 3rd Edition [New! LEED BD+C v4 Credit Summary Sheet]

Week	Reading	Activity	Quiz				
1	LEED v4 Green Associate Candidate Handbook [<u>USGBC Web Site</u>]	ACT#01 - INTRO [Ans.]	<u>Q#1</u> [An	ıs.]			
	GA02 Excerpt Introduction. LEED BD+C RG v4 - Pgs. 1-35						
	Recommended Reading - to Complete Activity #1						
	BDC02 Green building incentive strategies. U. S. Green Building Council, 2014.						
	BDC04 Foundations of LEED. U.S. Green Building Council, 2020. [PDF format]						
	BDC05 LEED v4 for Building Design and Construction Checklist. U.S. Green Building Council, 2016. [Excel Format] [PDF Format]						
	LCCG: Imagine it - Pg. 1						
	LCCG: Section 1. Introduction to Green Buildings and Communities - Pgs. 2-17		<u>GAQ#1</u>	Ans.			
	LCCG: Section 2. Sustainable Thinking - Pgs. 18-31		GAQ#2	Ans.			
	LCCG: Section 3.Sustainable Thinking at Work: New Processes for Green Building - Pgs. 32-4	49	GAQ#3	Ans.			
	LCCG: Section 5. About USGBC and LEED - Pgs. 84-93		<u>GAQ#4</u>	Ans.			

DropBox Folder - Online Course Material

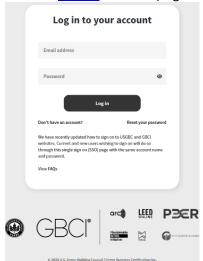
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- Course Material will be added on-going. Please be sure to check the folders frequently.
- Printing handouts is not required, but it may be helpful if that is your preferred style for learning.

Steps for Preparing for the LEED Green Associate Exam

- Step 1. Read the LEED Green Associate Candidates Handbook
- Step 2. Create a <u>USGBC</u> Account (usgbc.org)



- Step 3. Sign Up and Schedule a Date to Take the LEED Green Associate Exam
- Step 4. Read the Required Referenced Material (see, LEED Green Associate Candidate Handbook, pg. 19)

REFERENCES

- U.S. Green Building Council. <u>Green Building and LEED Core Concepts Guide</u>. 3rd Edition. U.S. Green Building Council, 2014. Print and Digital versions available.
- U.S. Green Building Council. Introductory and Overview Sections.
 LEED Building Design + Construction Reference Guide. V4 Edition. U.S. Green Building Council, 2019.¹
- U.S. Green Building Council.

 LEED v4 Impact Category and Point Allocation Process Overview. U.S. Green Building Council, 2013.
- U.S. Green Building Council. <u>LEED v4 User Guide</u>. U.S. Green Building Council, 2019.
- · Guide to LEED Certification: Commercial. U.S. Green Building Council.
- · "LEED Certification Fees." U.S. Green Building Council.
- "Addenda Database." U.S. Green Building Council.2

All reading material can be found on lorisweb.com/leed.html and in the DropBox Folder

- Step 5. Attend the eight-week online workshop and the two-day in person *Power Jam Study!*
- Step 6. Take and pass the LEED Green Associate Exam!
- Step 7. Enjoy your new professional credential!

About the USGBC

USGBC | U.S. Green Building Council

Mission and Vision

Green building for everyone within a generation.

At USGBC, our vision is that buildings and communities will regenerate and sustain the health and vitality of all life within a generation. Our mission is to transform how buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy, and prosperous environment that improves the quality of life. We're committed to transforming our built environment through LEED, the world's most preeminent green building system. Today there are more than 105,000 LEED-certified buildings in nearly 190 countries.

Embracing market Priorities

Green building practices are more important than ever. Green buildings save money, improve efficiency, lower carbon emissions and create healthier places for people. They are critical to addressing climate change and meeting ESG goals, enhancing resilience, and supporting more equitable communities.

USGBC is at the forefront of industry discussions and actively advancing these priorities within the market. Dive into our comprehensive resources, reports, and articles that highlight the intersection between LEED and key topics: <u>decarbonization</u>, <u>electrification</u>, <u>equity</u>, <u>ESG</u>, <u>green finance</u>, <u>human health</u>, <u>net zero</u> and <u>resilience</u>.

Modeling the mission and values

The USGBC headquarters in Washington, D.C., has been awarded a prestigious triple Platinum certification in <u>LEED</u>, <u>TRUE</u> and <u>WELL</u>. This trio of certifications reflects USGBC's commitment to healthy, productive, sustainable and responsible work environments. The headquarters, reflects the changing office landscape, with a clear emphasis on decarbonization, indoor environmental quality and resource efficiency. <u>Learn more</u>.

Advocacy

Advocating for green buildings and communities.

Driving the development of green buildings

Sustainability and green building are projected to see growth for years to come, with its influence reaching across the U.S. economy, generating significant environmental and social benefits. Backed by community, research and tools, we use advocacy, partnerships, and campaigns to drive the development of green buildings and communities.

Our advocacy goals:

- Ensure that taxpayer dollars being spent on federal, state and municipal buildings are investing in buildings that cost less to build and operate and are healthier for people.
- Ensure that lawmakers and elected officials have access to current and cutting-edge information on green building and resilient cities and communities so they can make the best decisions on behalf of their constituents.
- Ensure that policies incentivize and encourage the use of LEED and other resources that create economic, environmental and social value.
- Leverage our external engagements and contacts to promote organizational reputation and relevance for resilience, equity, climate, and quality of life.

Join the Advocacy Working Group for timely updates and opportunities to get involved. Whether it's a five-minute call or email to your elected representative or jumping in to help on an Advocacy Day, we appreciate our volunteers and everything they do to further the green building mission and vision. View the <u>Advocacy Working Group brief</u> to learn more and join the working group.

Advocacy priorities

Discover green building-related and LEED-specific policies across the U.S. in the <u>USGBC Policy Library</u>. The library shares details on policies at the federal, state and local levels that incentivize, require or otherwise promote green building measures, including LEED.

Green building codes

Green building strategies are increasingly being introduced into traditional building codes, addressing the cross-cutting categories of site selection, water conservation, energy efficiency, renewables, indoor environmental quality and resource conservation. With large U.S. states and metro areas leading the way, governments and local jurisdictions have adopted green building criteria as policy.

As traditional building code evolves to include sustainability measures, that upward movement helps redefine leadership and what LEED can do to transform the market. These forces work together, fueling higher levels of building performance and sustainability. With the full force of the USGBC and GBCI's core competencies in standards creation, verification, education and high-performance building data tracking, we are committed to speeding the evolution of green building codes far and wide—and establishing minimum green requirements for buildings, providing baseline green benefits and a foundation for applying LEED. Learn more.

USGBC Policy Library

The <u>USGBC Policy Library</u> is an interactive tool that showcases policies that incentivize, require, or encourage high-performance buildings, including but not limited to <u>LEED</u>, across state and local jurisdictions in the United States.

Policies, including structural incentives like density and height bonuses and expedited or no-cost permitting, information mechanisms, and financial incentives like tax credits, grants and low interest loans - help drive the market for high-performance buildings.

If there is a high performance building policy, or any policy that references LEED, in your jurisdiction that is not shown on this map, we encourage you to submit them to publicpolicies@usgbc.org.

LEED - https://www.usgbc.org/leed

Leadership in Energy and Environmental Design

LEED rating system

The most widely used green building rating system.

LEED-certified green buildings are better buildings.

<u>LEED</u> (Leadership in Energy and Environmental Design) is the world's most widely used green building rating system. LEED certification provides a framework for healthy, highly efficient, and cost-saving green buildings, which offer environmental, social and governance benefits. LEED certification is a globally recognized symbol of sustainability achievement, and it is backed by an entire industry of committed organizations and individuals paving the way for market transformation.

<u>LEED v5</u> is the newest version of LEED. It marks a transformative milestone in the built environment's alignment with a low-carbon future and addresses critical imperatives such as equity, health, ecosystems and resilience. <u>Learn more</u>.

A LEED for every project

LEED is for all building types and all building phases including new construction, interior fit outs, operations and maintenance and core and shell. Check out our interactive <u>Discover LEED tool</u> to get started; then, use the <u>rating system selection guidance</u> to select a rating system.



Building Design and Construction (BD+C)

For new construction or major renovations. Includes New Construction and Core & Shell, and also includes applications for Schools, Retail, Hospitality, Data Centers, Warehouses & Distribution Centers and Healthcare.

LEED v4 BD+C rating system PDF LEED v4 BD+C scorecard Reference guide overview



Interior Design and Construction (ID+C)

For complete interior fit-out projects. Includes Commercial Interiors, and also includes applications for Retail and Hospitality.

LEED v4 ID+C rating system PDF LEED v4 ID+C scorecard Reference guide overview



Building Operations and Maintenance (O+M)

For existing buildings that are undergoing improvement work or little to no construction. Includes Existing Buildings, and also includes applications for Schools, Retail, Hospitality, Data Centers, and Warehouses & Distribution Centers.

LEED v4 O+M rating system PDF LEED v4 O+M scorecard Reference guide overview



Neighborhood Development (ND)

For new land development projects or redevelopment projects containing residential uses, nonresidential uses, or a mix. Projects can be at any stage of the development process, from conceptual planning to construction. Includes Plan and Built Project.

LEED v4 ND rating system PDF LEED v4 ND scorecard Reference guide overview



Homes

For single family homes, low-rise multi-family (one to three stories) or mid-rise multi-family (four or more). Includes Homes, Multifamily Lowrise, Multifamily Midrise. Homes and residential buildings that are greater than four stories may also use LEED BD+C.

LEED v4 Homes rating system PDF LEED v4 Homes scorecard Reference guide overview



Cities

For entire cities and sub-sections of a city. LEED for Cities projects can measure and manage their city's water consumption, energy use, waste, transportation and human experience.

Existing Cities and Communities scorecard New Places (Plan and Design Phase) scorecard Guide to LEED Certification: Cities and Communities Pilot

LEED system goals

LEED-certified buildings are critical to addressing climate change and meeting ESG goals, enhancing resilience, and supporting more equitable communities. LEED is a holistic system that doesn't simply focus on one building element, such as energy, water or health. Instead, it looks at the big picture, factoring in all critical elements that work together to create the best building possible. The goal of LEED is to create better buildings that:

Reduce contribution to Protect and restore water resources Promote sustainable and

global climate change regenerative material cycles

Protect and enhance biodiversity

Enhance individual human health and ecosystem services Enhance community quality of life

Of all LEED credits, 35% relate to climate change, 20% directly impact human health, 15% impact water resources, 10% affect biodiversity, 10% relate to the green economy, and 5% impact community and natural resources. In LEED v4.1, most LEED credits are related to operational and embodied carbon. Learn more.



LEED categories can also contribute toward meeting the U.N.'s Sustainable Development Goals.

Explore synergies between LEED and SDGs.

Better for business, people and the environment.

Millions of people live, work and learn in LEED-certified buildings worldwide. Here's why.

Better of business and the bottom line

LEED buildings have a higher resale value and lower operational costs than non-LEED buildings. LEED is an essential strategy for achieving ESG, decarbonization and equity goals. LEED-certified buildings are a solid asset for investors, occupiers, and communities. They've proven to be top-performing commercial real estate investments.

Help meet investor's ESG goals

Command higher rents
Boast lower vacancies post-pandemic
Increased occupany rates
Acquire premium pricing

LEED helps investors measure and manage their real estate performance. It allows investors to implement management practices that prioritize building efficiency, decrease operational costs and increase asset value.

Better for people

LEED-certified buildings focus on occupant well-being, offering a healthier and more satisfying indoor space while addressing community and public health. The rating system focuses on strategies like banning smoking and reducing toxic exposure from materials to improve air quality. Active design and supporting the production of local, sustainable foods promote physical activity and healthy eating.

Happier employees and occupants

Bring in the good, keep out the bad Heathier air quality Reduced pollution

Employers in LEED-certified spaces report higher recruitment and retention rates and increased employee productivity*.

Better for the environment

LEED buildings use less energy and water, utilize renewable energy and fewer resources, create less waste, and preserve land and habitat. LEED certification is a global solution for cities, communities and neighborhoods. Through sustainable design, construction and operations, LEED can help new and existing buildings to reduce carbon emissions, energy and waste, conserve water, prioritize safer materials, and lower our exposure to toxins.

Tackle climate change
Reduce energy use and carbon emissions
Reduce waste
Fewer cars, fewer miles driven
Green materials

Buildings account for almost 40% of global energy-related CO2 and are critical in tackling climate change.

Energy-efficient buildings reduce pollution and improve outdoor air quality in major industrialized areas, making LEED a critical tool in reducing smog.

By building to LEED standards, buildings contributed 50% fewer GHGs than conventionally constructed buildings due to water consumption, 48% fewer GHGs due to solid waste and 5% fewer GHGs due to transportation*.

How LEED works

To achieve LEED certification, a project earns points by adhering to prerequisites and credits that address carbon, energy, water, waste, transportation, materials, health and indoor environmental quality. Projects go through a verification and review process by GBCI and are awarded points that correspond to a level of LEED certification: Certified (40-49 points), Silver (50-59 points), Gold (60-79 points) and Platinum (80+ points).

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Platinum	Gold	Silver	Certified
80+ points earned	60-79 points earned	50-59 points earned	40-49 points earned

LEED is backed by <u>USGBC</u>—the developers of LEED—and an entire industry of committed organizations and individuals who are paving the way for market transformation. USGBC invests more than \$30 million annually to maintain, operate and improve LEED and its customer delivery.