

# **USGBC AP BD+C**

USGBC LEED ACCREDITED PROFESSIONAL BUILDING DESIGN AND CONSTRUCTION CERTIFICATION QUESTIONS & ANSWERS

Exam Summary – Syllabus – Questions

#### AP BD+C

Certified LEED Accredited Professional Building Design and Construction (AP BD+C)

100 Questions Exam - 170 out of 200 Cut Score - Duration of 120 minutes

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### Know Your AP BD+C Certification Well:

The AP BD+C is best suitable for candidates who want to gain knowledge in the USGBC LEED Accredited Professional. Before you start your AP BD+C preparation you may struggle to get all the crucial LEED Accredited Professional Building Design and Construction materials like AP BD+C syllabus, sample questions, study guide.

But don't worry the AP BD+C PDF is here to help you prepare in a stress free manner.

The PDF is a combination of all your queries like-

- What is in the AP BD+C syllabus?
- How many questions are there in the AP BD+C exam?
- Which Practice test would help me to pass the AP BD+C exam at the first attempt?

Passing the AP BD+C exam makes you Certified LEED Accredited Professional Building Design and Construction (AP BD+C). Having the LEED Accredited Professional Building Design and Construction certification opens multiple opportunities for you. You can grab a new job, get a higher salary or simply get recognition within your current organization.

# USGBC AP BD+C LEED Accredited Professional Building Design and Construction Certification Details:

Exam Name	USGBC LEED Accredited Professional Building Design and Construction
Exam Code	AP BD+C
Exam Fee	Combined exam: \$550 (\$400 for USGBC members) Specialty only: \$350 (\$250 for USGBC members)
Exam Duration	120 Minutes
Number of Questions	100
Passing Score	170 out of 200
Format	Multiple Choice Questions
Schedule Exam	<u>USGBC</u>
Sample Questions	USGBC LEED AP BD+C Exam Sample Questions and Answers
Practice Exam	Certified LEED Accredited Professional Building Design and Construction (AP BD+C) Practice Test



## AP BD+C Syllabus:

Topic	Details
LEED Process (8 Questions)	<ul> <li>Different avenues to achieve LEED goals (e.g., developing credit interpretation rulings/requests; Regional Priority Credits; innovative credit submittals; use of pilot credits, etc.)</li> <li>LEED system synergies (e.g., energy and EQ; waste management)</li> <li>Project boundary; LEED boundary; property boundary</li> <li>Prerequisites and/or minimum program requirements for LEED certification</li> <li>Knowing the evolutionary characteristics of LEED (e.g., development cycles of the rating systems; continuous improvement)</li> </ul>
Integrative Strategies (9 Questions)	<ul> <li>Integrative process (e.g., energy and water discovery items)</li> <li>Integrative project team, as applicable per project type and phase (e.g., architect; engineer; landscape artist; civil engineer; contractor; facility manager, etc.)</li> <li>Value of collaboration (e.g., meeting on integrative green strategies)</li> </ul>
Location and Transportation (9 Questions)	<ul> <li>Site selection</li> <li>Development constraints and opportunities (e.g., prime farmland; floodplains; species and habitat; water bodies; wetlands; historic districts; priority designations; brownfields)</li> <li>Community connectivity terms/definitions (e.g., walkability; street design)</li> <li>Access to quality transit: knowledge of access and quality concepts/calculations (e.g., accessibility to multimodal transportation choices; quality transit; bicycle network)</li> <li>Alternative transportation: infrastructure and design (e.g., parking capacity; bicycle storage and shower rooms; alternative-fuel fueling stations)</li> <li>Green vehicles (e.g., fleet management; knowledge of regionalization of energy sources for electric power generation)</li> </ul>
Sustainable Sites (9 Questions)	<ul> <li>Site assessment (e.g., topography; hydrology; climate; vegetation; soils; human use; human health impacts)</li> <li>Site assessment: site as a resource (e.g., energy flows)</li> <li>Construction activity pollution prevention (e.g., soil erosion, waterway sedimentation/contamination, airborne dust)</li> <li>Site design and development</li> <li>Habitat conservation and restoration (e.g., on-site restoration or preservation; off-site habitat restoration; off-site habitat conservation; native or adaptive vegetation; disturbed or compacted soils)</li> </ul>



Topic	Details			
	<ul> <li>Exterior open space (e.g., amount of space and quality of services; vegetated outdoor space; biophilia)</li> </ul>			
	<ul> <li>Exterior lighting (e.g., exterior light trespass and uplight; consequences to the development of wildlife and people)</li> </ul>			
	<ul> <li>Rainwater management (e.g., historical rainfall conditions; natural hydrology; low-impact development)</li> </ul>			
	<ul> <li>Heat island reduction (e.g., heat island effect; green roofs; solar reflectance; roof and non-roof strategies)</li> </ul>			
	Joint use (e.g., joint parking, etc.)			
<ul> <li>Outdoor water use reduction: irrigation demand (elandscape water requirement; irrigation system efficient and adaptive species)</li> <li>Indoor water use reduction</li> </ul>				
	<ul> <li>Fixture and fittings (e.g., water use reduction through fixtures such as toilets; urinals; faucets [kitchen, lavatory]; showerhead)</li> </ul>			
Water Efficiency (9 Questions)	<ul> <li>Appliance and process water (e.g., equipment types [i.e., cooling towers, washing machines])</li> </ul>			
	- Water performance management			
	<ul> <li>Water use measurement (e.g., water meter(s); submeters; types of water sources to measure; data management and analysis)</li> </ul>			
	<ul> <li>Types and quality of water (e.g., potable; nonpotable; alternative water sources)</li> </ul>			
	- Building loads			
	<ul> <li>Design (e.g., building orientation; glazing selection; clarify regional considerations)</li> </ul>			
	<ul> <li>Space usage (e.g., space types [private office, individual space, shared multi- occupant spaces]; equipment and systems)</li> </ul>			
Energy and	Opportunities for passive design			
Atmosphere (14 Questions)	- Energy efficiency			
Questions)	<ul> <li>Assemblies/components (e.g., building envelope; HVAC; windows; insulation)</li> </ul>			
	<ul> <li>Operational energy efficiency (e.g., schedules; set points; interactions between systems)</li> </ul>			
	<ul> <li>Commissioning (e.g., commissioning authority (CxA); owner's project requirements (OPR); basis of design (BOD); monitoring-based commissioning; envelope</li> </ul>			



Topic	Details
	commissioning)
	<ul> <li>Demand response (e.g., grid efficiency and reliability; demand response programs; load shifting)</li> <li>Alternative and renewable energy (e.g., on-site and off-site renewable energy; photovoltaic; solar thermal; wind; low-impact hydroelectricity; wave and tidal energy; green power, carbon offsets)</li> <li>Energy performance management</li> </ul>
	<ul> <li>Advanced energy metering (e.g., energy use measurement; building automation controls)</li> <li>Operations and management (e.g., training of staff;</li> </ul>
	operations and maintenance plan)
	<ul> <li>Benchmarking (e.g., metrics used; proposed building performance rating/ baseline building performance rating; comparing building energy performance against similar buildings or historical data; tools and standards [ASHRAE, CBECS, Portfolio Manager])</li> </ul>
	<ul> <li>Environmental concerns: resource and ozone depletion (e.g., sources and energy resources [oil, coal and natural gas]; renewable and nonrenewable resources; chlorofluorocarbons [CFCs] and other refrigerants; stratospheric ozone layer)</li> <li>Energy model as a tool</li> <li>Process loads (e.g., elevator; refrigeration, etc.)</li> <li>Iterative optimization</li> </ul>
	- Reuse
	<ul> <li>Building reuse (e.g., historic building reuse; renovation of abandoned or blighted building)</li> </ul>
	<ul> <li>Material reuse (e.g., structural elements [floors, roof decking]; enclosure materials [skin, framing]; permanently installed interior elements [walls, doors, floor coverings, ceiling systems])</li> </ul>
Materials and	- Life cycle impacts
Resources (12 Questions)	<ul> <li>Life cycle assessment (e.g., quantify impacts; whole-building life cycle assessment; environmental attributes used in Environmental Product Declaration [EPD]; Product Category Rules [PCR]; design for flexibility)</li> </ul>
	<ul> <li>Material attributes (e.g., bio-based; wood products; recycled content; local; Extended Producer Responsibility [EPR]; durability)</li> </ul>
	Human and ecological health impacts (e.g., raw material source and extraction practices; material ingredient



Topic	Details
	reporting)
	- Waste
	<ul> <li>Construction and demolition waste management (e.g., waste reduction; waste diversion goals; recycle and/or salvage nonhazardous construction and demolition materials; waste management plan)</li> </ul>
	<ul> <li>Operations and ongoing (e.g., waste reduction; storage and collection of recyclable materials [mixed paper, corrugated cardboard, glass, plastics, metals]; safe storage areas for batteries and mercurycontaining lamps)</li> </ul>
	- Environmental concerns of materials (e.g., where materials came from; how they are used/exposures; where they might go/impacts)
	- Indoor environmental quality:
Indoor Environmental Quality (11	<ul> <li>Ventilation levels (e.g., natural vs. mechanical; outdoor air; regional climate conditions)</li> </ul>
	<ul> <li>Tobacco smoke control (e.g., prohibiting smoking; environmental tobacco smoke transfer)</li> </ul>
	<ul> <li>Management of and improvements to indoor air quality (e.g., source control; filtration and dilution; construction indoor air quality; air testing; ongoing monitoring)</li> </ul>
	<ul> <li>Low-emitting materials (e.g., product categories [paints and coatings, adhesives and sealants, flooring, etc.]; volatile organic compound (VOC) emissions and content; evaluating environmental claims)</li> </ul>
Questions)	- Lighting: electric lighting quality (e.g., tradeoffs [color, efficiency]; surface reflectance; types of fixtures)
	- Daylight (e.g., building massing and orientation; glare; human health impacts; illuminance)
	- Acoustic performance (e.g., exterior and interior noise; background noise; dead vs. live spaces)
	- Occupant comfort, health and satisfaction: controllability of systems (e.g., thermal; lighting)
	- Thermal comfort design (e.g., strategies to promote occupants' productivity and comfort; values of occupant satisfaction)
	- Quality of views (e.g., connection to outdoor environment; direct line of sight to outdoors)
Project	- Regional design (e.g., regional green design and construction
Surroundings and	measures as appropriate)
Public Outreach (4	- Cultural awareness; impacts and challenges; historic or heritage awareness
Questions)	- Educational outreach; public relations for the building



## **USGBC AP BD+C Sample Questions:**

#### **Question: 1**

Which renewable energy sources are commonly used onsite for buildings?

(Choose Three)

- a) Photovoltaic
- b) Solar thermal
- c) Nuclear energy
- d) Wind energy
- e) Wave and tidal energy

Answer: a, b, d

#### **Question: 2**

Which of the following are considered innovative credit submittals under the LEED system?

(Choose Two)

- a) Use of new building materials not previously considered
- b) Implementation of advanced energy modeling
- c) Installation of traditional HVAC systems
- d) Adoption of smart building technologies

Answer: b, d

#### **Question: 3**

How should athletic fields be treated in the calculations for Water Efficiency Credit, Outdoor Water Use Reduction?

- a) Must be calculated using 100% potable water
- b) May be included or excluded from the calculations
- c) May be calculated using a standard 20% reduction from baseline
- d) Must be calculated using at least 20% from an alternative water source

Answer: b

#### **Question: 4**

Why is educational outreach important in green building projects?

- a) It solely focuses on gaining political support
- b) It decreases the project's visibility
- c) It limits community involvement
- d) It enhances public understanding and support

Answer: d



#### **Question: 5**

How does the LEED boundary differ from the property boundary?

(Choose Two)

- a) LEED boundary is the entire property while the property boundary is just the building.
- b) LEED boundary includes areas directly impacting the project's sustainability.
- c) Property boundary is set by legal property lines, while LEED boundary is set by project team.
- d) There is no difference; they are the same.

Answer: b, c

#### **Question: 6**

What is a significant environmental impact of using chlorofluorocarbons (CFCs)?

- a) Increasing energy efficiency
- b) Depleting the stratospheric ozone layer
- c) Enhancing renewable energy use
- d) Reducing greenhouse gas emissions

Answer: b

#### **Question: 7**

How can process loads be managed to improve energy efficiency?

(Choose Two)

- a) Implementing energy-efficient equipment
- b) Increasing operating hours
- c) Scheduling maintenance during peak hours
- d) Using variable frequency drives

Answer: a, d

#### **Question: 8**

In terms of project outreach, what is the benefit of maintaining cultural awareness throughout the project lifecycle?

- a) It ensures the project remains unnoticed
- b) It promotes community engagement and acceptance
- c) It guarantees higher financial investment
- d) It diminishes the relevance of local opinions

Answer: b



#### **Question: 9**

The city is building a new botanical garden and is attempting LEED certification. What could the educational program include to earn an Innovation in Design Credit?

- a) Present the building's sustainable features at the grand opening
- b) Present the building's sustainable features at a town hall meeting
- c) Provide on-going weekly tours highlighting the building's sustainable features
- d) Publish a press release to the local newspaper outlining the building's sustainable features

Answer: c

#### **Question: 10**

What are key components to consider for passive design in building architecture?

(Choose Two)

- a) Wallpaper selection
- b) Window placement and sizing
- c) Insulation materials
- d) Appliance color

Answer: b, c

# Study Guide to Crack USGBC LEED Accredited Professional Building Design and Construction AP BD+C Fxam:

- Getting details of the AP BD+C syllabus, is the first step of a study plan.
   This pdf is going to be of ultimate help. Completion of the syllabus is must to pass the AP BD+C exam.
- Making a schedule is vital. A structured method of preparation leads to success. A candidate must plan his schedule and follow it rigorously to attain success.
- Joining the USGBC provided training for AP BD+C exam could be of much help. If there is specific training for the exam, you can discover it from the link above.
- Read from the AP BD+C sample questions to gain your idea about the actual exam questions. In this PDF useful sample questions are provided to make your exam preparation easy.
- Practicing on AP BD+C practice tests is must. Continuous practice will make you an expert in all syllabus areas.



#### Reliable Online Practice Test for AP BD+C Certification

Make ProcessExam.com your best friend during your USGBC LEED Accredited Professional Building Design and Construction exam preparation. We provide authentic practice tests for the AP BD+C exam. Experts design these online practice tests, so we can offer you an exclusive experience of taking the actual AP BD+C exam. We guarantee you 100% success in your first exam attempt if you continue practicing regularly. Don't bother if you don't get 100% marks in initial practice exam attempts. Just utilize the result section to know your strengths and weaknesses and prepare according to that until you get 100% with our practice tests. Our evaluation makes you confident, and you can score high in the AP BD+C exam.

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