

LEED (LEADERSHIP IN ENERGY AND ENVIRONMENT DESIGN) ACCREDITATION

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Abstract

This paper discusses the LEED (Leadership in Energy and Environment Design) environmentally oriented construction standard developed by the US Green Building Council (USGBC). LEED is the nationally accepted benchmark for the design, construction and operation of high performance green buildings. LEED certification provides independent, third party verification that a building project is environmentally responsible, profitable and a healthy place in which to live/work.

Here, the information regarding the LEED exam such as registration, fees, cancellation, re-examination, and prerequisite requirements are presented. In addition, benefits to individuals who have passed the accreditation exam are listed. Also, the responsibilities of a LEED Accredited Professional (AP) are tabulated. LEED Professional Accreditation distinguishes building professionals with the knowledge and skills to successfully uphold the LEED certification process. The skyrocketing population of LEED APs and LEED-Certified Projects made the USGBC update the accreditation exam in 2009. This paper describes, through sample questions, the updated format of the exam.

1 Introduction

A LEED Accredited Professional (LEED AP) is an individual who has passed an exam and possesses the knowledge and skills necessary to participate in the design process. The test was developed to support and encourage integrated design, and to streamline the application and certification process. The exam was launched in 2001 to recognize, through accreditation, individuals understanding of green building practices and principles, and familiarity with LEED requirements, resources, and processes.

The LEED Professional Accreditation exam is valid and reliable. Validity means that the exam is able to measure that which it is supposed to measure, how accurately the exam measures a candidate's skills is called reliability. The LEED Professional Accreditation exam accurately assesses each candidate's ability to carry out the required responsibilities of a

LEED Accredited Professional. More than 43,000 people have earned the credential since the Professional Accreditation program was launched in 2001¹.

2 Objective of LEED Certification

LEED certification is being used to bring sustainability into building design, through a nationally recognized standard of excellence. This is a high standard for green construction that will serve as seal of approval that the building project is environmentally responsible, profitable and healthy place to live and work. Obtaining LEED certification for a project lets the industry know that a green building has developed.

While LEED Rating Systems can be a useful tool for building professionals, there are many reasons why LEED project certification can be an asset to engineering¹:

- Be recognized for commitment to environmental issues in the community, organization (including stockholders), and industry.
- Receive third party validation of achievement.
- Qualify for a growing array of state & local government initiatives.
- Receive marketing exposure through the USGBC Web site, Green building conferences, case studies, and media announcements.

3 Benefits of LEED Professional Accreditation³:

LEED certification is the worldwide standard for sustainability in building design and construction. LEED certification, which includes a rigorous third-party commissioning process, offers compelling proof that one has achieved his environmental goals and his building is performing as designed. Getting certified allows one to take advantage of a growing number of state and local government incentives, and can help boost press interest in one's project. Also there are other benefits and they are differentiated as follows,

3.1 Individual Benefits

- It provides a marketable credential to an employer, prospective employer or client.
- Listing on website directory of LEED Accredited Professionals.
- LEED Accredited Professional certificate.
- Receive recognition for involvement in the LEED Certification process.
- Employer Benefits.
- Eligible for projects on which owners are mandating the participation of a LEED AP.
- Encourages the growth of knowledge and understanding of the LEED Certification process.

3.2 Industry Benefits

- Encourages and promotes a higher understanding of LEED.
- Supports and facilitates transformation of the built environment.
- New tools and technique is used for the sustainability.
- Easily recognized and stand out of the crowd.

4 Exam Registration

Visit www.gbci.org and by clicking on the Exam Registration will prompt to a website where one can register by creating an account³. Exam Fees for USGBC National Members is \$300.00 and Non Members is \$400.00. Prometric conducts the exam and it accepts electronic check and credit card payment methods and it charges the exam fee when the scheduled exam session occurs³.

One can confirm, cancel, or reschedule their exam appointment through any one of these methods³:

- By visiting www.prometric.com/gbci anytime and following the on-screen instructions or By Calling 1-888-215-4154 , then dialing 2, from 8:00 am to 8:00 pm Eastern Standard Time, Monday through Friday, and
- Change or Cancellation of the reservation must be done through prometric no later than midnight on the third day before your scheduled examination. Cancellation charge is of \$30.00.

There is no limit to the number of times unsuccessful candidates may retake the examination. Exam candidates will be charged the full exam fee for each exam scheduled³.

5 Prerequisites Requirements:

No prerequisites are required for taking the LEED Professional Accreditation exam, however, the recommended are as follows³

- Building industry knowledge and tenure in green building,
- Familiarity with LEED certified projects documentation process,
- Knowledge of LEED credit intents, requirements, submittals, technologies, and strategies within the discipline,
- Practical experience working with multiple design disciplines,
- Understanding benefits of LEED and life cycle costs, and
- Familiarity with LEED resources and processes.

6 Exam Specifications

The specifications for each section of the LEED Professional Accreditation exam are organized to include a statement of intent and a list of various content areas. This structure provides the volunteer Subject Matter Experts with a framework to guide the development of exam items to assess whether a candidate is capable of performing specific tasks and services. The following outline provides a general description of exam content areas⁵.

6.1 Knowledge of LEED Credit Intents and Requirements, establish level of knowledge of LEED credit intents, requirements, submittals, technologies, and strategies for the following credit categories

- Site.
- Water.
- Energy.
- Materials.

- Indoor environmental quality.
- Describe format and process for achieving innovation credits.

6.2 *Coordinate Project and Team by the following*

- Gather all project information and requirements to support the LEED process.
- Manage coordination of multiple job functions to achieve LEED Certification
- Identify standards that support LEED credits.
- Identify opportunities for integrated design and credit synergies to support LEED, Certification; explore systems integration opportunities.
- Identify critical path elements and schedule to implement LEED process.
- Develop and implement green building strategies critical path.

6.3 *Implement LEED Process by the following*

- Select appropriate LEED product for project scope.
- Register project for LEED Certification online.
- Demonstrate knowledge of CIR(Credit Interpretation Requests and Rulings) process and resources.
- Manage LEED documentation/certification process.
- Manage and complete letter templates.
- Draft and review innovation credits.

6.4 *Verify, Participate In, and Perform Technical Analyses Required for LEED Credits*

- Verify compliance of technical work products created by other team members.
- Participate in and guide the development of technical analyses with design professionals.
- Perform technical analyses to verify compliance with LEED requirement.

6.5 *Sample Sections for the Above Specifications*⁵

- Section 1: Knowledge of LEED
- Section 2: Coordination
- Section 3: Implement LEED
- Section 4: Verify, Participate In, and Perform Technical Analyses Required

7 LEED Professional Accreditation Exam

It is a computer-based test, but candidates who wish to write the exam need not necessarily have an extensive computer experience to take the test. Exam questions and answer options are displayed on a screen. The computer records the responses and duration of the exam. An examinee is able to change answers, skip questions and flag questions for later review. The results are known before leaving the test site. One more important thing is while taking the exam if a candidate exits the exam session, the examination cannot be restarted. The time duration permitted is 2 hours to complete the exam. The total exam time is 2 hours and 20 minutes for the entire process. Total time is broken out as follows:

- 10 minute tutorial (optional).

- 2 hour exam.
- 10 minute exit survey.

8 LEED Update-New Requirements for Accredited Professionals⁶

Earlier in 2009, the USGBC updated the accreditation exam in part, due to the skyrocketing population of LEED APs and LEED-Certified Projects. The LEED AP exam structure was changed not only to accommodate the expanding number of professionals but also for the increased types of green experts seeking credentials from the USGBC.

Today, Green Associate accreditation is the first tier level to be achieved. According to the first GBCI website, the exam is available to anyone who has some form of involvement on a LEED-registered project, employment (or previous employment) in a sustainable field of work, or engagement in (or completion of) an education program that addresses green building principles. This designation is typically attractive to students and employees of companies that operate as LEED-focused suppliers and manufacturers. The credential also requires a biannual completion of 15 hours of green building continuing education courses.

The most popular accreditation at the second tier is the LEED Accredited Professional, or LEED AP. This level requires a more practical application of LEED philosophies, as well as current working knowledge of LEED projects. To be eligible to take this exam, the applicant must submit supervisor or client verifications of time spent and duties performed while working on LEED registered projects. LEED AP must also complete 30 hours of continuing education courses biannually, in addition to passing the Green Associate and one of five AP specialty exams.

The third tier is available for LEED AP Fellow. A specific requirement for this highest accreditation have not yet been released, but generally speaking, the title is awarded through a peer evaluation after considering a LEED AP's significant contributions to sustainability practices and the green building industry during the course of his or her career. An additional exam is not required.

8.1 New and Improved Exam

LEED 2009 requires that an approved application form must be submitted before the applicant may sit for the exam. The exam is now not only lengthier and more difficult, but if failed, the applicant must wait at least six months to retake it. Presently, there are multiple tiered exams that aim to qualify a professional more directly to his or her specific job. The specialty exams are separated into five categories which correspond with the LEED rating systems;

- Operations & Maintenance.
- Homes.
- Building Design & Construction
- Interior Design & Construction.
- Neighborhood Development.

LEED AP who specializes in one of the above categories is regarded as an expert within that specific rating system.

8.2 Grandfathered LEED APs

Professionals who already have the LEED AP designation have the option to carry their title over the AP Building Design & Construction category. They simply need to register with

LEED as a grandfathered candidate. If existing LEED APs register with new program, they gain a LEED AP- BD&C title, indicating they are experts in the new LEED program for New Construction.

All newly re-registered APs must maintain their certification through 30 hours of continuing education credits every two years with a yearly enrollment fee, which is currently set as a biennial \$50. Or, they may forgo the education credits and retake the exam at least three months before their accreditation expires.

9 Revised Exam Fees and Duration⁷

9.1 LEED Green Associate (Tier I):

- Application Fee: \$50
- USGBC National Members: \$150
- Non Members: \$200
- Biannual Maintenance Fee: \$50
- Additionally, one will likely have to pay to get the 15 hours of continuing education every two years.

9.2 LEED Accredited Professional (Tier II):

- Application Fee: \$50
- USGBC National Members: \$300
- Non Members: \$450
- Biannual Maintenance Fee: \$50
- Additionally, one will likely have to pay to get the 30 hours of continuing education every two years.

9.3 Revised Exam Duration

- LEED Green Associate (Tier I)

The time duration permitted for this level of exam is 2 hours with 100 questions.

- LEED Accredited Professional (Tier II)

The time duration permitted for LEED-AP + Specialty exam is 2 hours for each one of the five specialization tracks available.

10 Summary and Conclusion

LEED certification is the recognized standard for measuring building sustainability in the United States and also in other countries around the world. This accreditation enables an individual to facilitate the rating of buildings with the various LEED systems. Achieving LEED certification is the best way to demonstrate that the building project is truly "green."

As Green design and LEED-Certified Projects has become the part of mainstream practice, the demand for LEED APs participation in sustainable projects is growing more and more.

11 References

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