GREEN CLASSROOM PROFESSIONAL

Certificate Program Handbook

THE CENTER FOR GREEN SCHOOLS

U.S. GREEN BUILDING COUNCIL USGBC

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THE BASICS

About the Green Classroom Professional Certificate Program

The Center for Green Schools at the U.S. Green Building Council (USGBC) is offering the Green Classroom Professional (GCP) certificate program that will equip educators and other school stakeholders with the knowledge needed to make their classrooms and schools healthier, greener places to teach and learn.

Classrooms serve as hands-on learning environments and create foundational awareness of lifestyle choices and health. Upon earning the certificate, educators and other professionals will be able to identify features that support or impede environmentally healthy classrooms and foster an attitude among future generations to appreciate and model green practices.

Green classroom professionals advocate for healthier environments in which to work and teach. With the Green Classroom Professional Certificate, the classroom will turn into a living laboratory, creating foundational awareness of greener lifestyles, energy savings and environmental health in students.

The program will help pre-K-12 teachers, paraprofessionals and administrators:

- Make classrooms and learning spaces healthier and more sustainable
- Support green building and sustainability through energy and water savings for schools and also create a healthier indoor environment for teachers and students
- Provide a healthier classroom
- Provide the best environment for student success
- Foster an attitude among students to appreciate and model sustainable practices

The Green Classroom Professional Certificate is endorsed by the National Education Association (NEA), and participation often qualifies for elective continuing education. All Green Classroom Professionals will receive a digital certificate that can be printed out and displayed in their school or classroom.

Process overview

This Green Classroom Professional Certificate Program includes a two-hour online course and a one-hour assessment with multiple choice questions. The program allows 60 days for each candidate to complete the course and 30 days to complete the assessment. The course is the only preparation required for the assessment.

To sign up, please visit: centerforgreenschools.org/greenclassroom.

Eligibility requirements

- Candidates must be at least 18 years of age or older.
- Candidates must agree to GBCI's Disciplinary and Exam Appeals Policy and USGBC's Terms & Conditions.

Before registering for the assessment, candidates must complete the two-hour course.

Cost

The course and assessment cost $60 for non-members and $40 for employees of a USGBC-member organization.

Taking the course and assessment

1. Visit centerforgreenschools.org/greenclassroom to sign up for the Green Classroom Professional Certificate Program.
2. Create a profile and submit payment.
3. Once you complete the payment, you will receive access to the course.
4. Complete all 12 modules. The course automatically tracks your completion.
5. After completing the modules, take the assessment. You will have a maximum of two attempts within 60 days. If the candidate fails the second attempt, she/he will be required to reregister and resubmit payment for the course and the assessment for another two attempts.

Extensions

Candidates may request a 60-day extension to complete the course and assessment due to extenuating circumstances. Candidates must submit a written request, which includes the basis for the request and supporting third party documentation or attestation to gbci.org/contact or by mail.

GBCI will consider requests received before the GCP period expires, but no earlier than 15 days before the end of the original 60-day registration period. Extensions are granted only once per application.

Extensions are usually granted for the following circumstances:

- Documented illness or health condition for candidate or care for an immediate family member (spouse, child, or parent) with a serious health condition
- Disabling traffic accident
- Death in the immediate family
- Birth and care of a newborn child
- Placement with the candidate of a child for adoption or foster care
- Court appearance or jury duty
- Military duty
- Extended period of unemployment after your application approval date

THE COURSE

The course is online and self-paced. It includes 12 modules covering key topics. The course requires internet access and Adobe Acrobat Reader for most downloadable documents.

Module 1: Introduction

1. Introduce participants to the challenges of creating and maintaining environmentally healthy and sustainable learning spaces.
2. Introduce participants to the core green building concepts and the LEED framework.
3. Prepare participants to adopt, advocate or implement green practices that improve sustainability, optimize the classroom and school as learning environments and promote health among students and school occupants.
4. Prepare participants to communicate effectively with other members of the school community about environmental challenges and green practices by providing them with appropriate terminology, facts and information.
5. Prepare participants for the Green Classroom Professional Certificate assessment.

Module 2: Green Schools and Classrooms

1. Describe characteristics of a green school.
2. Describe the role of a Green Classroom Professional.
3. Identify key information that Green Classroom Professionals should learn about their classrooms.

Module 3: Green Building Basics & LEED

1. Explain key sustainability terms and concepts.
2. Identify green building best practices.
3. Explain costs and benefits of green building.
4. Describe green building and the role of USGBC and LEED.
5. Recognize the intents of each of the LEED Credit Categories.
6. Examine examples of green building/schools.

Module 4: Sustainable Sites

1. Identify unsafe, unsustainable and unhealthy issues related to the school grounds and factors outside the school building.
2. Identify ways a GCP can influence or advocate to reduce negative impacts.

Module 5: Indoor Environmental Quality – Air Quality

1. Describe why air quality is important in the classroom.
2. Identify sources that affect indoor air quality.
3. Identify classroom practices that may have a negative impact on indoor air quality.
4. Promote air flow in the classroom.
5. Identify supply air and return air vents.
6. Report sources of moisture, including leaks.

Module 6: Indoor Environmental Quality – Green Cleaning & Integrated Pest Management

1. Use strategies to reduce particulates and dirt in the classroom.
2. Identify potential hazards of cleaning products.
3. Use environmentally friendly and healthy cleaning products, equipment and practices.
4. Describe importance of integrated pest management to a green classroom/ school.
5. Identify typical classroom pests, analyze sources of infestation and apply preventative measures.
6. Identify non-toxic basic pest management methods.

Module 7: Indoor Environmental Quality – Acoustics

1. Describe why noise is a consideration in a green classroom.
2. Recognize the impact of noise in the learning environment.
3. Consider ways to limit noise in a classroom.

Module 8: Water Efficiency & Quality

1. Describe why water quality and reduction are important in a green school.
2. Recognize problematic water indicators (e.g., solids, odor, discoloration).
3. Describe why reporting water leaks is important (e.g., water leaks can lead to much bigger problems: mold, structural deterioration, pests).
4. Report wasteful water situations.
5. Promote water efficient strategies and fixtures.

Module 9: Energy & Atmosphere – Lighting

1. Describe the reasons lighting is important in a classroom.
2. Describe why energy use reduction is a significant consideration for a school.
3. Identify opportunities to increase daylighting in the classroom while managing quality of lighting.
4. Define opportunities to balance daylighting and thermal comfort.
5. Use energy reducing lighting and follow efficient lighting practices.

Module 10: Energy & Atmosphere – Plug Loads & HVAC

1. Employ practices to decrease the amount of energy used in the school through plug loads.
2. Use best practices to control energy use by HVAC systems.

Module 11: Materials & Resources

1. Describe why material selection, usage and waste management are important in a green classroom.
2. Request and advocate for sustainable, healthy and environmentally friendly learning and teaching materials.
3. Reduce the consumption of common classroom products.
4. Repurpose items for use in the classroom.
5. Recycle products and use sustainable, safe and healthy practices to dispose of materials that cannot be recycled.

Module 12: Innovation & Conclusion

1. Recognize opportunities for innovative actions as a Green Classroom Professional.

THE ASSESSMENT

Assessment format and scoring

The assessment consists of 30 three-option, multiple-choice questions in three scenarios.

The scenarios consists of the following:

- Scenario 1: Contains 14 questions
- Scenario 2: Contains 10 questions
- Scenario 3: Contains six questions

Each correct answer earns a point. The sum of correct options selected is a raw score which is converted into a scaled score. Consistent with our current LEED® Professional assessments, scaled scoring ranges from 125 to 200, with a passing score set at 170 or higher.

The results of the assessment are available immediately after completing the assessment and are available for download.

Assessment content

The course is the only preparation required for the assessment.

A. Air Quality: Five questions

1. Identify sources that affect indoor air quality (e.g., mold, dust, Volatile Organic Compounds VOCs), absence of proper floor coverings, adequate air circulation, outdoor air, aerosols, standing water, leaking plumbing).
2. Identify classroom practices that may have a negative impact on indoor air quality (e.g., art activities, science experiments, show and tell, cleaning and disinfection, “cover up” strategies such as air fresheners).
3. Promote air flow (e.g., pros and cons of opening windows, fans, remove plants, books, and papers from ventilation units or window sills, don’t block supply and return vents with furniture).
4. Identify supply air and return air vents.
5. Report sources of moisture including leaks (e.g., gas, odor, mold, broken windows).
6. Identify health effects of indoor air pollution (e.g., asthma, allergies).
7. Use strategies to reduce particulates [dirt] (e.g., walk-off mats, no pets, no food, instruct students to clean desks and lockers).
8. Identify performance effects on students related to indoor air pollution (e.g., absences).
9. Identify unsafe, unsustainable, and unhealthy issues related to dumpster locations, pesticides, composting, proximity to pollutants (bus drop off and pick up from idling buses), lawn fertilizers, artificial turf and playground materials.

B. Water Quality and Reduction: Three questions

1. Recognize problematic water indicators (e.g., solids, odor, discoloration).
2. Report wasteful water situations (e.g., leaks and malfunctioning toilets, potentially eliminate plants).
3. Promote water efficient strategies and fixtures (e.g., low flow faucets and toilets, dishwashers, drought resistant landscaping).

C. Energy & Lighting: Six questions

1. Use energy reducing lighting (e.g. daylighting, avoid desklamps from home, older ballast vs. magnetic ballast).
2. Employ practices to decrease the environmental impact of the process that lights your school (e.g., avoid placing paper/posters on the windows, turn off lights when there is adequate daylight).
3. Identify opportunities to increase daylighting in the classroom (e.g., how orientation affects lighting and how daylight is impacted by the season, raise or open shades).
4. Define opportunities to balance daylighting and thermal comfort (e.g., lowering window coverings to minimize direct sun glare, opening window coverings to optimize use of daylighting and reduce use of electrical lighting).
5. Employ practices to decrease the amount of energy used in the school through plug loads (e.g., power strip use, space heaters, turning off unused equipment).
6. Set thermostat to promote energy reducing ways.
7. Identify tools to help assess energy use.

D. Noise: One question

1. Recognize the impact of noise in the learning environment (e.g., quiet HVAC).
2. Consider ways to limit noise in a classroom (e.g., request sound absorbing panels, use white noise, open plan classrooms may want to request partitions).

E. Materials: Five questions

1. Request and advocate for sustainable, healthy and environmentally friendly options for the purchase of learning and teaching materials (e.g., No VOCs, asthmagens, carcinogens, more recycled products).
2. Reduce the consumption of common classroom products (e.g., use both sides of paper, share reading materials, use library books rather than buy new books. Share equipment with other teachers. Encourage use of reusable bags and bottles for lunch, reduce paper and emphasize technology).
3. Recommend green school supplies to parents (e.g., unscented and non-toxic markers, recycled content, wipes, cafeteriaware, BPA-free products).
4. Promote low Volatile Organic Compounds (VOC) emission products (e.g., art supplies).
5. Minimize and ultimately eliminate products containing chemicals of concern (e.g., formaldehyde containing products, asthmagens, carcinogens, reproductive toxins, formaldehyde, lead, coal ash, shredded tires, VOCs, PAHs, PVCs, PCBs, Prop 65 chemicals).

F. Green Cleaning: Four questions

1. Identify the implications of using cleaning products (e.g. bleach acting as an asthma trigger).
2. Use environmentally friendly and healthy cleaning products (e.g., avoid using air refreshers that cause allergic reactions).
3. Identify safe materials, equipment, and practices of cleaning (e.g., microfiber, dual mop bucket, microfiber cloths, damp dusting, walk-off mats).
4. Recognize color coding system related to cleaning products (e.g., a red label may indicate hazardous cleaning product).

G. Waste Management: Four questions

1. Identify ways to reduce waste (e.g., utilize technology in order to reduce paper. Use smart board applications to do 'fill in the blank' worksheets rather than disposable workbooks).
2. Recycle products (e.g., paper, plastic bottles, cans, purchasing recyclable products).
3. Dispose materials to promote sustainable, safe and healthy practices (e.g., paint, science chemicals, light bulbs, batteries).
4. Repurpose items for use in the classroom.

H. Integrated Pest Management: One question

1. Identify pests (e.g., roaches, fleas, lice, bedbugs, rodents).
2. Analyze source of infestation (e.g., garbage cans, open waste containers, open/ unsealed wall penetrations).
3. Identify non-toxic basic pest management methods within legal limitations (e.g., safe, healthy, sustainable chemicals and traps).
4. Apply preventative measures (e.g., identify open food containers, seal open entry paths, sweep debris, organize and reduce clutter).

Sample Question 1

In Mrs. Allava's class, students return from lunch with trash. There is a combination of used notebook paper and plastic bottles, dirty napkins and food-soaked paper plates, and bananas and apples. Which of these items should be placed in the recycling bin instead?

A. Used notebook paper and plastic bottles (*Answer)
B. Dirty napkins and food-soaked paper plates
C. Bananas and apples

Sample Question 2

Mrs. Allava wants to bring more lighting into the classroom. Generally she posts students' drawings on the classroom door. Student desks are generally facing forward and perpendicular to the windows in the classroom. The classroom blinds are also closed. How

can Mrs. Allava increase visual comfort of the students while reducing energy use?

A. Open the blinds, move drawings from the door to the wall, and turn desks 90 degrees
B. Open the blinds, leave drawings in place on the door and turn desks towards windows
C. Open the blinds, hang drawings from the ceiling near the windows, and leave desks in place (*Answer)

Sample Question 3

The facilities staff generally picks up trash from Mrs. Allava's room just after lunchtime each day. Mrs. Allava forgot to schedule an additional pick for her classroom after an afternoon celebration for her class' reading scores. One hour after the party, Mrs. Allava hears and then sees rodents. After notifying facilities staff, how can Mrs. Allava prevent this situation from occurring again in the future?

A. Collect food trash separately in a sealable plastic trash container (*Answer)
B. Tie up plastic bags before leaving the room for the night
C. Place single feed bait rodenticide pellets around trash can area

Assessment development

The course is the only preparation required for the assessment. The development of a valid assessment begins with a clear and concise definition of the learning outcomes needed in order to be a Green Classroom Professional. Further, measurement experts worked with subject matter experts in the green building industry and pre-k-12 educators to identify the learning outcomes to be applied to the course and assessment.

Validity means that the assessment is able to measure that which it is supposed to measure. Reliability is an index of how accurately the assessment measures a candidate's skills. A test must be both valid and reliable to be considered a well-developed assessment. The GCP assessment accurately measures each candidate's ability to demonstrate the knowledge of a Green Classroom Professional.

Extensive test statistics are calculated in the process of determining test validity and reliability. This includes careful analysis of every item on the GCP assessment. Assessment questions are developed and validated by global work groups of subject matter experts, are referenced to current standards and resources, are developed and monitored through psychometric analysis and satisfy the learning outcomes.

Exam appeals

Following completion of the assessment, candidates may submit, in writing and in accordance with the Disciplinary and Exam appeals Policy, comments on any question(s) they believe to contain technical errors in content. In your correspondence, include your contact information, test date, the specific concerns about the test question, as well as an

indication of any comments left on the question during the assessment. GBCI will review the question and you will be notified of the findings. Because of the need for test security, GBCI will not release assessment questions or answers to candidates. GBCI does not respond to complaints or challenges received more than 14 days after the test date.

GBCI provides this process for candidates who believe an assessment question contains technical errors in content. The assessment challenge process is not made available for complaints about fail scores or assessment difficulty.

GBCI is unable to modify assessment scores under any conditions. In the event of a successful assessment content appeal, you will be given the opportunity to retest; your score will not be changed.

Creating a USGBC site user account

To create a USGBC site user account, visit usgbc.org/registration/create-user and enter the required information.

MORE INFORMATION

Continuing education

The certificate of completion attests to taking the course and passing the assessment and can be used to submit for continuing education credit for educators or for LEED credential holders upon earning the certificate.
Find information and documents to complete your CE hours »

Community

- The Center for Green Schools convenes educators, volunteers, professionals and other school stakeholders around the green schools movement. Our vision is to see every child in a green school within this generation. Join us:
- Green Schools Committees
- Green Apple Day of Service
- Trailblazing Teacher awards programs

Contact

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About the U.S. Green Building Council

USGBC is committed to a prosperous and sustainable future through cost-efficient and energy-saving green buildings. USGBC works toward its mission of market transformation through its LEED green building program, robust educational offerings, a nationwide network of chapters and affiliates, the annual Greenbuild International Conference & Expo, the Center for Green Schools and advocacy in support of public policy that encourages and enables green buildings and communities. For more information, visit usgbc.org, explore the Green Building Information Gateway (GBIG) and connect on Twitter, Facebook and LinkedIn.

About the Center for Green Schools at the U.S. Green Building Council

The Center for Green Schools at the U.S. Green Building Council is making sure every student has the opportunity to attend a green school within this generation. From kindergarten to college and beyond, the Center provides the resources and support to elevate dialogue, accelerate policy and institute innovation toward green schools and campuses. High-performing schools result in high-performing students, and the Center works directly with staff, teachers, faculty, students, administrators, elected officials and communities to drive the transformation of all schools into sustainable places to live and learn, work and play. The Center provides educators with connections to curriculum resources, professional development opportunities and guidance for meaningful action in their schools.

For more information, visit centerforgreenschools.org, or Twitter and Facebook.