



HUD Green Academy

Course 1

Introduction to Green Building for Affordable Housing

Syllabus

Course Summary

This 12-hour course provides an introduction to energy efficiency and green building for HUD grantees, affordable housing practitioners, and participating jurisdictions. **Day One** explores the elements of green building and operations including efficiency, healthy housing and organizational sustainability. Case studies are included. **Day Two** includes HUD guidelines and an interactive affordable housing design charrette exercise.

Course Objectives

- Provide a comprehensive overview of green building concepts and sustainability
- Provide an understanding of green building standards and HUD incentives
- Engage participants in an integrated design and development exercises
- Provide an awareness of sustainable operations and maintenance strategies
- Communicate the value of an organization-wide commitment and plan

Day 1

Module #1	Introduction to Green Building and Sustainability
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Module #2	Location Efficiency and Site Design
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Module #3	Water Conservation
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Module #4	Resident Health & Safety and Accessibility
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Module #5	Materials and Resources
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Lunch (1 hour)

Module #6	Energy Efficiency
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Module #7	Operations & Maintenance
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Module #8	Reflection & Review (Day One)
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Day 2

Module #9	Organizational Sustainability
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Module #10	Green Building Standards & Codes
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Module #11	Integrated Design Charrette Workshop
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	Review and Course Evaluation
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Introductory Exercise

Today’s class will be interactive, and you will learn as much from discussions with other participants as from the course itself. As an introductory exercise, you will be asked to quickly introduce another participant in the class that you didn’t know before today. Use the space below to take notes that will help others get to know this person.

Name:

Affiliation:

General Interests:

Green and Sustainable Interests:

Other Information:

The following pages provide a framework for you to take notes throughout the course of the class. In addition to noting insights and questions during the class, each section gives you a place to assess your organization’s efforts in various aspects of green building and sustainability. This is simply for your own benefit and these notes are yours to keep for review and reflection.

Module 1 Introduction to Green Building and Sustainability

What is green building and sustainability?

Module 2

Location Efficiency and Site Design

Solution	Insights and Questions	Rate
Site Selection		1. No Action 2. Planning 3. Forming 4. Developed
Site Design and Management		1. No Action 2. Planning 3. Forming 4. Developed
Integrative Approach		1. No Action 2. Planning 3. Forming 4. Developed

What next steps can you personally take to improve location efficiency and site design?

Timing	Next Steps	Resources/Info Needed
Short		
Short		
Medium		
Medium		

Module 3

Water Conservation

Solution	Insights and Questions	Rate
Indoor Water Use		1. No Action 2. Planning 3. Forming 4. Developed
Stormwater Management		1. No Action 2. Planning 3. Forming 4. Developed
Irrigation		1. No Action 2. Planning 3. Forming 4. Developed
Integrative Approach		1. No Action 2. Planning 3. Forming 4. Developed

What next steps can you personally take to improve water conservation?

Timing	Next Steps	Resources/Info Needed
Short		
Short		
Medium		
Medium		

Module 4

Resident Health, Safety and Accessibility

Solution	Insights and Questions	Rate
Building Materials		1. No Action 2. Planning 3. Forming 4. Developed
Indoor Air Quality		1. No Action 2. Planning 3. Forming 4. Developed
Integrated Pest Management		1. No Action 2. Planning 3. Forming 4. Developed
Accessibility		1. No Action 2. Planning 3. Forming 4. Developed
Integrative Approach		1. No Action 2. Planning 3. Forming 4. Developed

What next steps can you personally take to improve health, safety and accessibility?

Timing	Next Steps	Resources/Info Needed
Short		
Short		
Medium		
Medium		

Module 5

Materials and Resources

Solution	Insights and Questions	Rate
Reuse & Waste Reduction		1. No Action 2. Planning 3. Forming 4. Developed
Durability		1. No Action 2. Planning 3. Forming 4. Developed
General Cond. and Certs		1. No Action 2. Planning 3. Forming 4. Developed
Integrative Approach		1. No Action 2. Planning 3. Forming 4. Developed

What next steps can you personally take to reduce the use of materials and resources?

Timing	Next Steps	Resources/Info Needed
Short		
Short		
Medium		
Medium		

Module 6

Energy Efficiency

Solution	Insights and Questions	Rate
Existing Conditions		1. No Action 2. Planning 3. Forming 4. Developed
Upgrade and Rehab		1. No Action 2. Planning 3. Forming 4. Developed
Verification and Testing		1. No Action 2. Planning 3. Forming 4. Developed
Integrative Approach		1. No Action 2. Planning 3. Forming 4. Developed

What next steps can you personally take to improve energy efficiency?

Timing	Next Steps	Resources/Info Needed
Short		
Short		
Medium		
Medium		

Module 7

Operations & Maintenance

Solution	Insights and Questions	Rate
Resident and Staff Training		1. No Action 2. Planning 3. Forming 4. Developed
Recycling		1. No Action 2. Planning 3. Forming 4. Developed
Healthy Homes Rating System		1. No Action 2. Planning 3. Forming 4. Developed
Integrative Approach		1. No Action 2. Planning 3. Forming 4. Developed

What next steps can you personally take to improve operations and maintenance practices?

Timing	Next Steps	Resources/Info Needed
Short		
Short		
Medium		
Medium		

Module 8

Reflection and Day One Synthesis

Each class member has a card that lists an energy conservation strategy. Work with your colleagues to line up from the strategy you believe to be most to the least effective. Enjoy the conversations and embrace the fact that within this theoretical exercise there isn't a single answer. The instructor will facilitate reporting out to the group.

	Assessment
Biggest insights or takeaways?	
Current successes in sustainability	
Current areas of most need	
Opportunities for major innovation	
Local partners to engage	
Lingering questions?	

Module 9

Organizational Sustainability

Solution	Insights and Questions	Rate
Resident and Staff Training		1. No Action 2. Planning 3. Forming 4. Developed
Recycling		1. No Action 2. Planning 3. Forming 4. Developed
Healthy Homes Rating System		1. No Action 2. Planning 3. Forming 4. Developed
Integrative Approach		1. No Action 2. Planning 3. Forming 4. Developed

What next steps can you personally take to improve operations and maintenance practices?

Timing	Next Steps	Resources/Info Needed
Short		
Short		
Medium		
Medium		

Module 10

Green Building Standards

Solution	Insights and Questions	Rate
Energy Codes		1. No Action 2. Planning 3. Forming 4. Developed
ENERGY STAR		1. No Action 2. Planning 3. Forming 4. Developed
Other "Above Code" Systems		1. No Action 2. Planning 3. Forming 4. Developed

What next steps can you personally take to help achieve green building standards?

Timing	Next Steps	Resources/Info Needed
Short		
Short		
Medium		

Green Affordable Housing Action Plan

My vision for the role of sustainability in advancing the mission of my organization is:

In order to advance this vision, within the next **three months** I will:

As a first step to achieving this vision, within the next **two weeks** I will:

I will measure the success of this effort over time by:

Upon returning to work, I will reach out to in order to:

Organization or Person _____

I will also explore resources or partnerships that will enable me to:

Insert Goal or Intent _____

Possible additional Next Steps to incorporate green building and sustainability into your work and your agency:

- Gather and enter utility data for an existing building into Portfolio Manager or another third party energy benchmarking program (e.g. WegoWise, EnergyScoreCards)
- Contact local utility for information on residential energy efficiency programs and incentives (including energy audits)
- Conduct a healthy homes assessment
- Sign up for additional training towards a green building or healthy housing certification (e.g. LEED AP, BPI, NHCC)
- Organize or participate in an integrated design charrette for a current project
- Revise internal procurement policies to emphasize green cleaning products
- Contact a local green building or environmental nonprofit to conduct an energy audit for a residential property or administrative office
- Download the Enterprise or other green O&M Manual and create/customize an O&M Plan for all residential properties
- Start or expand a recycling program in your local office (paper, plastic, metals, toner cartridges and electronic equipment)
- Engage residents to help implement a recycling program in existing residential properties
- Replace existing light bulbs with energy-efficient compact fluorescent bulbs in the common areas of a residential property or in an administrative office
- Establish a resident education program to reduce energy and water use, improve occupant health, and encourage recycling (perhaps partner with a nonprofit, university, or other partner)