

MODULE OVERVIEW

This module covers the impacts of the built environment on the green environment. It introduces methods to reduce the impact on the green environment and explains how to apply the principles of a green building rating system.

PREREQUISITES

There are no prerequisites for this module.

OBJECTIVES

Upon completion of this module, the trainee will be able to do the following:

1. Describe the major challenges to the green environment that are caused directly or indirectly by the built environment.
2. Identify decisions and actions in your personal and work life that impact the green environment.
3. Prioritize your actions in terms of which ones matter most for the green environment.
4. Describe the life cycle phases of a building and the impacts on the green environment over its life cycle.
5. Identify green alternatives to conventional building practices and describe the pros and cons of those alternatives.
6. Identify specific practices you can implement at work to improve your impacts on the green environment.
7. Describe the Leadership in Energy and Environmental Design (LEED) rating process.
8. Identify construction activities that contribute to a project's LEED rating.
9. Identify common construction pitfalls that may affect a project's LEED rating.

PERFORMANCE TASKS

There is no performance testing for this module.

MATERIALS AND EQUIPMENT LIST

PowerPoint slides*	Programmable thermostats
Multimedia projector and screen	Water-saving faucets/showerheads
Desktop or laptop computer	Various types of light bulbs
Whiteboard/chalkboard	Review Test** and /or
Markers/chalk	Module Examination***
Pencils and scratch paper	

*ISBN 0-13-602360-6 (Call your Pearson Sales Representative for details.)

** Located in the Test Booklet

*** Required for entry into the National Registry
Contact NCCER Program Operations, 1-888-622-3720, for the Module Examination.

ADDITIONAL RESOURCES

This module is intended to present thorough resources for task training. The following reference works are suggested for both instructors and motivated trainees interested in further study. These are optional materials for continued education rather than for task training.

Field Guide for Sustainable Construction. Department of Defense – Pentagon Renovation and Construction Office (2004). Available online at renovation.pentagon.mil.

Greening Federal Facilities, 2nd ed. U.S. Department of Energy Federal Energy Management Program (2001). Available online at www.ofee.gov.

Natural Capitalism. Lovins, A., Hawkin, P., and Lovins, L.H. (1995). Little, Brown, & Company, Boston, MA. Available online at www.natcap.org.

Sustainable Buildings Technical Manual. Public Technologies, Inc./U.S. Department of Energy (2006). Available online at www.smartcommunities.ncat.org.

TEACHING TIME FOR THIS MODULE

An outline for use in developing your lesson plan is presented below. Note that each Roman numeral in the outline equates to one session of instruction. Each session has a suggested time period of 2½ hours. This includes 10 minutes at the beginning of each session for administrative tasks and one 10-minute break during the session. Approximately 15 hours are suggested to cover *Your Role in the Green Environment*. You will need to adjust the time required for activities and testing based on your class size and resources.

Topic	Planned Time
Session I. Introduction	
A. Introduction	_____
B. Impact of Individual Human Activities	_____
Session II. Things You Can Do to Make a Difference	
A. Seeking Leverage Points	_____
B. Reducing Energy Use	_____
C. Reducing Fuel Use and Increasing Fuel Efficiency	_____
D. Rejecting, Reducing, Reusing, and Recycling Materials	_____
E. Planting Vegetation	_____
F. Finding Better Energy Sources	_____
Session III. Best Practices for Construction, Part One	
A. Facility Life Cycle	_____
B. Site and Landscape Best Practices	_____
C. Water and Wastewater Best Practices	_____
Session IV. Best Practices for Construction, Part Two	
A. Energy Best Practices	_____
B. Materials and Waste Best Practices	_____
C. Indoor Environment Best Practices	_____
D. Integrated Strategies	_____
Session V. Tools and Strategies	
A. LEED Green Building Rating System	_____
B. Goals of the LEED Green Building Rating System	_____
C. LEED Documentation	_____
D. Common Pitfalls During Construction	_____

Session VI. Review and Testing

A. Review

B. Review Test

- a. A Review Test and Answer Key are included in the enclosed Test Booklet. Note that this is a *Review Test only* and results are not eligible for entry into NCCER's National Registry.

C. Module Examination

- a. The Module Exam for *Your Role in the Green Environment* is only available through NCCER and only to those instructors who are certified by NCCER to teach this course. For more information, contact NCCER Program Operations at 1-888-622-3720.
- b. Trainees must score 70 percent or higher to receive recognition from NCCER.
- c. Record the testing results on the Craft Training Report Form 200, and submit the results to the Training Program Sponsor.