



bookstore online resources conference & expo educational & training seminars

Houses That Work Online Education Information & Instructions

Presented by

**GreenBuilder
College**

Challenge Home Student Competition

For more information visit www.greenbuildercollege.com or call EEBA at (952) 881-1098.

Welcome to Houses That Work

This six-course Advanced Green Builder certification program, presented in partnership with Green Builder Media and Building Media, features the acclaimed "**Houses that Work**" building science curriculum, and is accredited for [continuing education by AIA, AIBD, BPI, NAHB, RESNET, USGBC and InterNACHI](#). Completion of the course work includes passing the test associated with each course. Student Competition Teams who pass all tests, and complete a student feedback evaluation, will be eligible to receive an Advanced Green Builder Certificate.

The course work will explore cross-disciplinary fundamentals, principles and best practices in the following modules:

1. Advanced Building Science (course length 2 hours)
2. Insulation That Works (course length 2 hours)
3. Managing Moisture (course length 2 hours)
4. Indoor Air Quality (course length 2 hours)
5. Ventilation That Works (course length 2 hours)
6. Selling Better Buildings (course length 2 hours)

The course presenters are some of the most knowledgeable building scientists in residential building science including:

[Gord Cooke](#)

[Mark LaLibrete](#)

[Justin Wilson](#)

[Tex McLeod](#)

Each Team must be a registered participant in the Challenge Home Student Design Competition through Home Innovation Research Labs. To begin your self-paced course work, EEBA will provide Team Leads with personalized Team log-in credentials to access coursework on www.greenbuildercollege.com.

About: DOE Challenge Home Student Design Competition

U.S. Department of Energy Challenge Home Student Design Competition

The U.S. Department of Energy (DOE) is engaging college students nationwide to participate in the DOE Challenge Home Student Design Competition and become part of the movement to achieve truly sustainable homes. This competition will provide the next generation of architects, engineers, construction managers, and entrepreneurs with skills and experience to start their careers and generate creative solutions to real-world problems.

Challenge Home Student Competition

For more information visit www.greenbuildercollege.com or call EEBA at (952) 881-1098.

The DOE Challenge Home Student Design Competition seeks student innovations for high-performance homes that can be implemented by the home building industry and serve as “models for success.” Competition submissions are intended to demonstrate the teams’ knowledge and skills to design, analyze, and plan the construction of quality, high-performance homes that meet or exceed the DOE Challenge Home requirements.

The competition will be held on a two-year cycle that alternates with the Solar Decathlon. For this inaugural year of the competition, the timing will be as follows:

- **Now:** Competition Rules and Resources, Registration Form Available Online
- **Fall Semester 2013/Early Spring Semester 2014:** Students Develop Design for Submittal
- **Mid-Spring Semester 2014:** Submittals Due (submission deadline will be posted online)
- **Late Spring Semester 2014:** Awards Presented

Each team must be sponsored by a collegiate institution, be comprised of at least three students and a faculty advisor, and have a designated team lead. Student teams are encouraged to be multidisciplinary in nature and have industry advisors, such as a local home builder, to help inform their decision-making process.

For more details on the competition and its criteria:

<http://www.homeinnovation.com/DOEChallengeHomeStudentDesignCompetition>

Houses That Work Coursework Specifics

Houses That Work – Advanced Building Science

This first course is about the fundamentals of building science - the physics of how buildings work. Our buildings must protect us from the elements. But to provide a home, these structures have to have features and benefits much broader than basic protection. Mark Laliberte walks carefully through all the performance features that make a green home truly green, and truly a home.

Houses That Work – Insulation That Works

A home's insulation system is a key component of the building enclosure, and plays a vital role in the comfort, durability and energy savings of a high-performance home. In this course, Justin Wilson dives into detail to explain the variety of materials, and the application methods that will provide the high performance that we expect.

Challenge Home Student Competition

For more information visit www.greenbuildercollege.com or call EEBA at (952) 881-1098.

Houses That Work – Moisture Management

Water management in a home can lead to moisture-related problems, including mold, which pushes this topic area into the realm of occupant health and safety. When it comes to priorities for homeowners, perhaps none is higher on the list than their own family's health and safety.

In this course, Justin Wilson takes this to heart, and helps Green Builders develop a strategic plan of attack for managing water in our homes. This work impacts the building site and foundation, as well as wall and roof systems.

Houses That Work – Indoor Air Quality

Good indoor air quality is defined as air that's at a comfortable temperature and humidity, and as clean and fresh as outdoor air. In this course, Tex McLeod examines what it takes to achieve good air quality in a home, focusing on pollutant and humidity control. At the end of the day, it won't help to have the best ventilation system in the world installed if the home is full of toxins.

In this course, Gord Cooke explores practical strategies for providing ventilation in high-performance homes. This course has been developed jointly by the Energy and Environmental Building Alliance and the Home Ventilating Institute to insure a consistent and thorough message on ventilation throughout the building industry, specifically to build clear channels of communication between members of the HVAC industry and home builders.

Houses That Work – Indoor Air Quality

Good indoor air quality is defined as air that's at a comfortable temperature and humidity, and as clean and fresh as outdoor air. In this course, Tex McLeod examines what it takes to achieve good air quality in a home, focusing on pollutant and humidity control. At the end of the day, it won't help to have the best ventilation system in the world installed if the home is full of toxins.

In this course, Gord Cooke explores practical strategies for providing ventilation in high-performance homes. This course has been developed jointly by the Energy and Environmental Building Alliance and the Home Ventilating Institute to insure a consistent and thorough message on ventilation throughout the building industry, specifically to build clear channels of communication between members of the HVAC industry and home builders.

Selling Better Buildings

Up to this point, this program has focused mostly on the technical performance of homes, which you should be well equipped to address. In this course, Gord Cooke shifts the focus slightly to talk about what it takes to sell those homes.

Challenge Home Student Competition

For more information visit www.greenbuildercollege.com or call EEBA at (952) 881-1098.

Selling the high performance features of a home takes a knowledge not only of the benefits, but also of the selling process. In fact, explaining high-performance houses from a technical point of view can sometimes hinder the sales process.

Reading Material and Online Resources

The reading material for the course consists of documents, publications and online resources relating to each educational and training seminar. You are welcome to order, view or print the resources if you choose. You can find them by following the links below to the EEBA, Department of Energy and EPA/IAQ websites.

Link / Purchase / Download

Climate Specific Builders Guides

[Builder's Guide to Cold Climates](#)

[Builder's Guide to Hot-Dry / Mixed-Dry Climates](#)

[Builder's Guide to Hot-Humid Climates](#)

[Builder's Guide to Mixed-Humid Climates](#)

[Online bookstore with EEBA Publications, issue-specific guides, software and tools](#)

Software Resources

[Building Better Homes DVD](#)

Online Resources

[Building America Solutions Center](#)

[DOE Building Technologies Program](#)

[Building Energy Optimization Software](#)

[EEBA National Education Partner Resources & Information](#)

[WaterSense](#)

[Indoor AirPlus](#)

[ENERGY STAR](#)

Challenge Home Student Competition

For more information visit www.greenbuildercollege.com or call EEBA at (952) 881-1098.