

The Road to Sustainability Runs through CCBC

Green/Renewable Energy Courses

Everyone's talking **GREEN**. **Make it your business!** Contractors, installers, business, and industry are doing their part to create healthy indoor and outdoor environments for everyone.

These certificate programs will help you **learn the skills you need to excel** in the growing environmental compliance industry. Then, if you choose, you can take this knowledge and advance to professional certification by sitting for formal examinations through certifying agencies.

- ❑ **Intro to Building Energy Efficiency** (\$395; 35 hours; Instructor-supported)
This course provides you with the knowledge and skills they need to run a more energy efficient and safe building. Introductory course covers topics such as: Building Science, Building Shell, Heating and Cooling, Energy Usage and Energy Auditing. Downloadable 30 page handbook.
- ❑ **Building / Home Energy Analyst (HERS)** (\$850; 50 hours; **11/6; 12/4**; Instructor-supported)
The Building Analyst and HERS Rater course is based upon a broad building science curriculum. It presents a solid scientific foundation upon which inspectors and auditors can build an accurate understanding of modern buildings. Each topic includes an overview of the technology, examples of typical installations and their defects, procedures for performing audits, and guidelines for analyzing potential retrofits. A balanced approach to building performance is presented here that addresses energy efficiency, building durability, and human health. The information presented here covers the topic areas included in the BPI Building Certification Model, the RESNET Home Energy Rating Standards, and the WAP Core Competencies. Students who complete the course will possess the skills needed to sit for the BPI and RESNET exams. Books Included; Start Dates: Nov 6 '09; Dec 4 '09
- ❑ **Certified Indoor Air Quality Manager (CIAQM)** (\$800; 28 hours; Instructor-supported)
Are you a facility manager, building engineer or property owner that is interested in how indoor air quality (IAQ) affects the occupants of your space? The Certified Indoor Air Quality Manager (CIAQM) course is designed to help you diagnose indoor environmental problems in your building, correct those problems, and prevent them from ever happening again. The course gives you practical steps to establish an IAQ Management Plan for your facility that will help you collect, log and resolve air quality complaints. The course also prepares you for the only accredited certification specifically designed for those that manage indoor air quality problems, sponsored by the American IAQ Council. The certification requires certain experience, fees and passing an examination offered at computerized testing centers throughout the US.
- ❑ **Certified Indoor Environmentalist (CIE)** (\$1,000; 32 hours; Instructor-supported)
The Certified Indoor Environmentalist Course Online is an in depth program teaching you the core skills needed to perform indoor environmental assessments of all building types. The course not only provides the fundamentals of indoor air quality, it teaches more advanced topics that will educate even seasoned veterans in the field.
- ❑ **Certified Microbial Investigator (CMI)** (\$800; 28 hours; Instructor-supported)
Take your HVAC or mold inspection services to a new level by learning the latest advances in the industry and while you're at it, getting the industry's most recognized microbial certifications, Council-certified Microbial Investigator (CMI) and Council-certified Microbial Consultant (CMC). We'll teach you the core skills needed to perform impressive assessments that will set you apart from the competition.
- ❑ **Fundamentals of Mold Inspection** (\$425; 8 hours; Instructor-supported)
The Fundamentals of Mold Inspection is a course for anyone wanting to learn the core skills needed to evaluate homes and buildings for mold. You will first learn about basic microbiology, causes of mold growth, different categories of mold and their health effects. The course also trains students on how to perform a thorough mold inspection using a 5-step process. You will also learn the when, where, why and how to take mold samples and interpret the results.
- ❑ **Fundamentals of Solar Hot Water Heating** (\$695; 60 hours; **9/7-11/16**; Instructor-supported)
This online course concentrates on the basics of installing code compliant solar hot water systems. This course will be useful for people who currently work in or plan to be employed in the solar hot water industry. Student technicians will learn practical design criteria, installation guidelines, safety issues, maintenance, and legal considerations of solar hot water heating systems. Books Included
- ❑ **Green Building Sales Professional** (\$395; 40 hours; Instructor-supported)
This program is specifically for individual professionals selling or marketing a certified Green residential (Real Estate Professionals), commercial or government project. Our goal is to provide homeowners, developers, builders, investors, realtors and professionals with a resource for clear understanding the in depth concept of green building and how it applies to your projects, purchases, marketing and sales within the marketplace. Topics covered: Intro Green Building, Environmental Quality, Resource Efficiency Advantages, Sustainable Preventative Maintenance and Sales and Marketing Advantage.
- ❑ **Green Building Technical Professional** (\$395; 40 hours; Instructor-supported)
This course provides you the tools needed to determine a Green Project. Discover what the future may hold for a Green Lifestyle. This track is designed specifically for those individuals who are involved in the nuts and bolts of green building.

Engineers, architects, builders, and those that would like to have a more in-depth approach to green building. Topics covered: Intro Green Building, Environmental Quality, Resource Efficiency Advantages, Sustainable Preventative Maintenance and Advanced Green Technologies.

❑ **Green Building for Contractors** (\$725; 60 Hours; Self-study)

Ideal for the contractor in the field! Learn Green building practices for experts in the field. Train your crew to be “Green” savvy! Once an emerging trend, green building has become a growing part of today’s construction industry. With the down market, it has become even more important for industry players to capture the opportunity created by the demand for more sustainable buildings. To become Green Builder certified, each enrolled user must complete the first seven courses. Each study course in this curriculum addresses the fundamental principles of green building relating to energy efficiency, building durability, indoor air quality, resource efficiency, and water efficiency.

❑ **LEED Green Associate v3** (\$225; 8 Hours; Self-study)

For professionals who want to demonstrate green building expertise in non-technical fields of practice, GBCI has created the LEED Green Associate credential, which denotes basic knowledge of green design, construction, and operations. The Green Associate credential also serves as the first step for professionals pursuing a LEED AP specialization. New Tier I credential that attests to demonstrated knowledge and skill in understanding and supporting green design, construction, and operations. Exam simulation prep included

❑ **Photovoltaic System Design & Installation** (\$795; 85 hours; 9/7-12/21; Instructor-supported)

This online course will provide the student technician with the fundamental knowledge of photovoltaic system design and installation. This course will be suitable for a supervised, entry-level position with a dealer/installer or other photovoltaic industry company. Student technicians will learn the practical design criteria, installation guidelines, safety issues, maintenance, and legal considerations of photovoltaic systems. Books Included

❑ **Solid Waste Operations Certificate** (\$800; 132 hours)

This four-course program is important training for homeland security as it relates to solid waste management. This introductory course includes instruction in Landfill operations, Composting operations, Household Hazardous Waste and Wastewater Operations (solids). These classes will meet or exceed most state requirements for the educational components of certification and/or licensing required for solid waste professionals.

❑ **Water Treatment Operations Certificate** (\$800; 240 hours; Self-study)

WATER TREATMENT I -Course description: Using the Internet, students will explore the rudiments of water treatment. The topics of this course include regulatory monitoring, iron and manganese removal, filtration, coagulation, flocculation, fluoridation, and disinfection. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links. **WATER TREATMENT II** - Course description: Using the Internet, students will focus on issues of concern to surface water treatment facilities. The topics of this course include reservoir management, taste and odor control, corrosion management, softening, demineralization, and trihalomethanes. Instrumentation and sludge handling and disposal issues are also addressed. Along with reading assignments from the text, the course is augmented with audio, photographs, interactive exercises, and online links. **WATER DISTRIBUTION SYSTEMS** - The topics of this course include water storage facilities, operation and maintenance of water mains, water quality issues, disinfections, and safety. **WATER ANALYSIS** - basic laboratory safety and gravimetric, spectrophotometric, electrochemical, titrimetric and microbiological methods. The units include instruction on the procedures for regulatory sampling and safety, and specific analytical procedures for total residue, fluoride, pH, ammonia, acidity, alkalinity, calcium, chloride, hardness, and coliform analysis. Books Included

❑ **Wastewater Treatment Operations Certificate** (\$1,000; 320 hours; Self-study)

WASTEWATER TREATMENT I-Using the Internet, students will explore the rudiments of wastewater treatment. This introductory course includes instruction in water pollution control, preliminary and primary treatment, fixed film processes, and suspended growth systems. Along with reading assignments from the text, the course is enhanced with up-to-date photographs, audio, interactive exercises, and online links. **WASTEWATER TREATMENT II** - focuses on issues of concern to wastewater treatment facilities. The topics of this course include activated sludge process control, sludge digestion and solids handling, nitrogen and phosphorous removal, and odor control. Along with reading assignments from the text, the course is augmented with audio, photographs, interactive exercises, and online links. **WASTEWATER TREATMENT – INDUSTRIAL**- focuses on issues of concern to industrial wastewater treatment facilities. The topics of this course include regulatory requirements; flow measurement; preliminary, physical and chemical treatment; filtration; and treatment of metal streams. Along with reading assignments from the text, the course is augmented with audio, photographs, interactive exercises, and online links. **WASTEWATER COLLECTION SYSTEMS** - gain a working knowledge of wastewater collection systems safety procedures, sewer inspection and testing, pipeline cleaning and maintenance, underground repair, lift stations, equipment maintenance, and sewer rehabilitation. Books Included

❑ **Weatherization Energy Auditor** (\$850; 50 hours; 11/6; 12/4; Instructor-supported)

This course is tailored specifically for Department of Energy’s (DOE) Weatherization Program and similar utility-funded programs. This course is based on the “Core Competencies for the Weatherization Assistance Program” developed by the Weatherization Trainers Consortium. The curriculum elements are specifically designed to train technicians involved in the field of building performance and energy efficiency by offering distance learning courses that are suited for continuing education, test preparation, and career enhancement. The course is also compliant with the BPI Energy Analyst Standards. Books Included; Start Dates: Nov 6 '09; Dec 4 '09

❑ **Energy Efficient Design for Architects** (\$875; 57 Hours; Self-study)

This course is a US Green Building Council Approved Education Provider Program and provides a firm foundation for LEED™. Standard 90.1 for Architects is a concise online course to help architects understand, apply and comply with the standard. It

provides the information essential to architects, with a brief overview of engineering that avoids the complex details. ANSI/ASHRAE/IESNA Standard 90.1-2004 is the minimum energy efficiency standard for all non-residential buildings, and all residential buildings greater than three stories in height in the USA.

❑ **Fundamentals of Sustainable Buildings** (\$745; 35 Hours; Self-study)

A thorough introduction to green design practices, benefits, new green building ideas, and an overview of the architectural decisions and their impact on sustainable and green project goals. Designed for: Recent engineering graduates working in HVACR, Technicians, Architects

❑ **Energy Auditing Software Training** (\$695; 50 Hours; Instructor-supported)

Students learn to calculate and complete a heat load; and Audit short-cuts for quick load calculations; and techniques for using the software as a sales tool. Students, working with an instructor, will have the opportunity to take building specifications and complete a load calculation on several rooms using the software. This will help students not only how to complete a heat load, but also the information they need to prepare an accurate load. Software, Manual J and instructor support included. Books Included

❑ **Indoor Air Quality – Fundamentals of ASHRAE Standard 62.1** (\$395; 29 Hours; Self-study)

properly designed ventilation systems are essential for the well-being of building occupants, to minimize adverse health effects and improve productivity of workers and students. Standard 62.1, Ventilation and Acceptable Indoor Air Quality, is the industry standard for the design and operation of ventilation systems to provide acceptable indoor air quality.

Sustainability – Green Supply Chain Training with special Conference-only pricing!

❑ **Carbon Strategies** (\$399; 10 Hours; Instructor-supported)

This course provides an overview of the World Resources Institute (WRI) Greenhouse Gas Protocol Initiative and describes various components of a climate-related strategy. It will summarize the critical steps for the firm to develop a successful carbon strategy across its boundaries, which includes assessing emissions and exposure to climate related risks, evaluating action options, setting goals and targets, developing financial mechanisms, engaging the organization, formulating policy strategy, and managing external relationships.

❑ **Green Purchasing Fundamentals** (\$299; 10 Hours; Instructor-supported)

Organizational purchasing has evolved tremendously over the last decade shifting from an administrative function to a strategic role. The changing dynamics of the global economy altered the skills of procurement professionals amplifying the importance of conditions such as quality, cost, and delivery. Now, the next step in professional evolution is upon us and the functions of on-time delivery and the lowest price are no longer sufficient. Organizational purchasing is in a strategic position to influence the sustainability and carbon footprint of an organization through multiple channels. What are world class purchasing departments doing to help their organizations become more sustainable? Green Purchasing Fundamentals introduces foundational concepts that align with systems, policies, and procedures that support green purchasing practices and organization sustainability.

❑ **Sustainability 101** (\$349; 10 Hours; Instructor-supported)

Sustainability has been described as “Meeting our needs while not compromising the ability of future generations to meet their needs” (Brundtland Commission) or “Not cheating our children” (former United Kingdom Environment Minister John Gummer). Sustainability resides within three foundational pillars of society: economic, social, and environment. Environmental sustainability and CSR are agenda items in boardrooms around the world not only as corporate stewardship discussion points, but as a strategic imperative and requirement so be successful. Leading organizations are taking a proactive position on transparency in reporting, auditing supply chain partnerships, innovating through community partnerships, and reacting to consumer demands. Our Sustainability 101 & CSR Essentials course establishes a common framework for employees at various levels and roles of the organization, while bringing together a global set of lenses to look through. It’s easy for people in organizations to move in the same direction when everyone understands the same need and information. This course is *essential* for everyone in the organization.

❑ **Certified Sustainability Professional** (\$1,299; 50 Hours; Instructor-supported)

Our CSP certification program is designed to give our graduates a great balance of core sustainability topics to enable them to stand out individually or to step into a sustainability leadership role with confidence. 5 Courses Included in this Program:

- Green Purchasing Fundamentals
- Sustainability 101: Corporate Social Responsibility Essentials
- Carbon Strategies
- Sustainability Leader: Your First 180-days to Success
- Environmental Management System (EMS) & ISO 14001

❑ **Green Supply Chain Professional GSCP** (\$1,499; 50 Hours; Instructor-supported)

Our GSCP certification program is designed to give our graduates a comprehensive knowledge of the sustainability areas confronting supply chain and operations professionals. This program will provide the graduate with very unique credentials and experience. 5 Courses Included in this Program: •Green Purchasing Fundamentals •Sustainability 101: Corporate Social Responsibility Essentials •Green Transportation: 12 Best Practices •Carbon Strategies •Green Supply Chain Management

❑ **Senior Certified Sustainability Professional** (\$2,499; 100 Hours; Instructor-supported)

Our SCSP certification program is designed to give our graduates a comprehensive knowledge of sustainability across multiple functional areas along with a balance of internal and external knowledge of sustainability leadership and consultancy. 10 Courses Included in this Program: •Green Purchasing Fundamentals •Sustainability 101: Corporate Social Responsibility Essentials •Carbon Strategies •Sustainability Leader: Your First 180-days to Success •Green Transportation: 12 Best Practices •Green Marketing & Sales Force Essentials •Green Packaging •The Sustainability Consultant •Advanced Green Purchasing •Environmental Accounting 101

New Courses with special Conference-only pricing!

❑ **Alternative Energy Operation** (\$455; 108 Hours; Self-study)

Topics include: Power Generation, Turbine System and Control, Combustion Turbine Fundamentals, Combustion Air and Flue Gas System, Boiler Fuel Systems, Efficiency, Reliability and Environmentally Sensitive Operations, Hydroelectric Power Plant Operations. Courses are developed by subject matter experts with field and educational experience within each discipline. All lessons are designed using learning outcome based instructional design methods. These online courses incorporate varying types of media, including photographs, graphics, video, animations, and three dimensional representations. Interactive remediation and simulation is also developed for each lesson to maximize the learning experience.

❑ **LEED 2009 Building Design and Construction BD+C** (\$225; 7 Hours; Self-study)

Replacing the LEED AP for New Construction exam track, this specialty provides a standard for professionals participating in the design and construction phases of high-performance, healthful, durable, affordable, and environmentally sound commercial, institutional, and high-rise residential buildings.

❑ **Wind Energy Technology** (\$2,150; 400 Hours; Instructor-supported)

This online program is designed for people who seek entry level job in a wind-based electric power generation facilities. Currently there are thousands of wind-based electric generators operating in the United States. Due to environmental reasons as well as a desire to limit reliance on foreign oil, it is expected that wind-based energy is going to be developed at a rapid pace over the next decade. It should also be noted that during the last decade, wind-based energy has dramatically improved its economical competitive position. Some believe that this type of energy is already competitive enough to replace large segments of conventional energy sources. Wide expansion of this energy sector in the United States has already begun. There are very few institutions in the country that provide training for entry-level workers for wind-based electric power plants. Wind-based electric plants (farms) are operated by small groups of highly trained individuals.

❑ **Home Energy Consultant** (\$495; 20 Hours; Instructor-supported)

This program consists of training, certification, and business start-up kit. You will receive everything you need to be able to go out and start conducting home/residential energy audits. You will learn to identify the common energy wasting areas of a residence. You will also learn more in-depth energy conservation techniques to enable you to provide your clients with the maximum in energy savings insight. Each course is easy to follow and understand, yet detailed and descriptive to educate you thoroughly. Once you have successfully completed the Home Energy Training Program and passed the Home Energy Certification Examination, you are fully prepared to start your very own home energy business. The best way to jump-start your energy business is with our Home Energy Business Kit.

❑ **Commercial Energy Consultant** (\$545; 25+ Hours)

This program consists of training, certification, and business start-up kit. You will receive everything you need to be able to go out and start conducting retail energy audits. The Commercial Energy Consultant Training Program is a comprehensive training program designed to teach you the basics of energy auditing, the economics of energy and how to turn that knowledge into a functioning, profitable business for yourself. Once you have successfully completed the Commercial Energy Training Program and passed the Commercial Energy Certification examination, you are fully prepared to start your very own energy business. The best way to jump-start your Energy Business is with our Commercial Energy Business Kit.

❑ **Code Training/New Construction Inspection** (\$625; 60 Hours; Instructor-supported)

If you are interested in working as a building inspector doing IRC® (International Residential Code) Inspections, use our materials to pass the International Code Council's (ICC®) IRC® Examination. Learn code provisions from actual real-life scenes and defects. That way, when you get out on site, you are familiar with what you are inspecting. Also, use our extensive, specially designed and field tested IRC Index to increase your chances of passing the ICC® certification exam. Our IRC® Index goes well beyond the index in the IRC® book.