Sustainability Courses Spring 2015

PV for Electricians Series
These one day clinics are repeated in February, March and April. Both courses are not required in the series.

Introduction to PV for Electricians and Inspectors
This course introduces the concepts, tools, techniques, and materials needed to understand systems that convert solar energy into electricity with photovoltaic (PV) technologies. Topics include site analysis for system integration, and building codes. Course approved by NC DOI for CEU credit.

Tom Honey
Thurs: 2/19, 8:00-5:00 Course # 1709, Bld 45 Rm 139
Thurs: 3/19, 8:00-5:00 Course # 1710, Bld 45 Rm 139
Thurs: 4/23, 8:00-5:00 Course #1711, Bld 45 Rm 139

Photovoltaic Technology & NEC Compliant Design
This course explains what electrical contractors, inspectors, and engineers need to know when designing, installing and inspecting PV Systems for compliance with the 2014 NEC. Topics include: PV wire sizing, PV overcurrent protection, Disconnects, Raceways, location of devices, Utility Interconnection, Permitting and Inspection, and PV system Grounding. Course approved by NC DOI for CEU credit.

Tom Honey
Fri: 2/20, 8:00-5:00 Course #1712, Bld 45 Rm 140
Fri: 3/20, 8:00-5:00 Course #1713, Bld 45 Rm 140
Fri: 4/24, 8:00-5:00 Course #1714, Bld 45 Rm 140

Introduction to Photovoltaics (PV Solar Panels) (80 hour course)
This course introduces the concepts, tools, techniques, and materials needed to understand systems that convert solar energy into electricity with photovoltaic (pv) technologies. Topics include site analysis for system integration, building codes, and advances in photovoltaic technology. Upon completion, students should be able to demonstrate an understanding of the principles of photovoltaic technology and current applications. Students are eligible to sit for the NABCEP entry level certificate exam - $95 additional fee for NABCEP exam.

Tom Honey
Tues: 1/13 - 5/5, 9:00-2:00 Course # 1707, Bld 45 Rm 134, 96hrs

Solar Thermal for Plumbers and Inspectors
Want to add a new element to your plumbing business? Learn the basics of solar thermal technologies supplying hot water from the sun. An experienced plumber teaches this course focusing on both technical issues and code compliance.
Thurs: 3/5/15 - 3/26/15, 6:30-8:30 Course #1258, Bld 45 Rm 139, 8hrs

Intermediate Beer Brewing
This course is for the beginning home brewer who wants to take their skills and knowledge to the next level, refine their brewing process and begin designing their own beers. Students will explore in detail the main ingredients in beer (grain, hops, yeast and water) as well as more advanced brewing techniques designed to give the brewer more control over the brewing process.

Kevin Lindley
Sat: 4/11/15 - 5/2/15, 12:00-2:00 Course # 1260, Bld 45, 12hrs

Little Houses: An Emerging and Sustainable Alternative
The Little House movement has come to Chatham County. Learn the important design considerations for a little house project. Topics include designing and planning for active and passive solar, rainwater harvesting, and landscape considerations.

Tim Watson, Architect
Tues: 3/4 - 3/25, 6:00-8:00 Course# 1708, 8hrs
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**Solar Thermal Technology**
This course examines heating techniques that come at the top of the pyramid for efficiency and practicality: solar and geothermal (ground-source heat pumps) for domestic water and home heating systems. Course content is centered on residential and small-commercial, relatively low-maintenance, affordable equipment and its proper installation.

*Tom Wills*
Tues: 1/13/15 - 5/12/15, 2:30-6:30 Course#1257, Bld 45 Rm 138, 64hrs

**Homebuilding 102**
This course covers building methods and materials used to dry-in a building. Topics include safety, ceiling/roof framing applications, roof finishes, windows, and exterior doors. Upon completion, students should be able to safely erect different roof types and properly install windows and exterior doors, roofing, and exterior finish materials.

If you have significant carpentry experience you may be considered for this class without the prerequisite.

*Marshall Dunlap, LEED AP*
Fri: 1/16/15 - 5/1/15, 9:00-4:00 Course # 1706, Bld 45 Rm 134, 96hrs

**Introduction to Off-grid Homesteading**
This course is planned to introduce students to homesteading concepts and provide the necessary background knowledge for purchasing land and creating an off-grid homestead. The course will be taught at a working off-grid homestead near Siler City.

*Logan Parker*
Wed: 5/04/15 - 5/25/15, 6:00-9:00
one Saturday field day 9:00-2:00 Course # 1256, offsite, 20hrs

**Social Enterprise, Building a Sustainable Local Economy**
This class will provide an overview of alternative corporate structures, 4th Sector business approaches, cooperative enterprise, and "Benefit" (B) corporations. Serial entrepreneur Lyle Estill will survey the intersections of "People, Profits, and Planet," from a real world, experiential standpoint.

*Lyle Estill*
Tues: 1/13/15 - 2/03/15 6:00-7:30 # 1259, 6hrs