BCT 245
Green Plumbing Concepts

Course Description
This course covers the basic design of plumbing a residential structure through the deployment and implementation of green construction elements. It also exposes the student to water recover systems, rainwater recover systems, and gray water systems in a residential setting.
. 3 Cr (3 lect/pres, 0 lab, 0 other)

Course Focus
This course will focus on water efficiency. Student will focus on how to save water in a residential home.

Text and References

Course Goals
The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives. (*designates a CRUCIAL goal)

1. Student Contributions

The student is expected to be prepared for class and to be in class on time. Cell phones are not allowed to be used in the classroom. This includes texting. All electronic devises including cell phones, pagers, computers, Ipods, Ipads must be turned off during class.

ADA STATEMENT
The Technical College of the Lowcountry provides access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request
disability accommodation, contact the counselor for students with disabilities at (843) 525-8228 during the first ten business days of the academic term.

ACADEMIC MISCONDUCT
There is no tolerance at TCL for academic dishonesty and misconduct. The College expects all students to conduct themselves with dignity and to maintain high standards of responsible citizenship.

It is the student’s responsibility to address any questions regarding what might constitute academic misconduct to the course instructor for further clarification.

The College adheres to the Student Code for the South Carolina Technical College System. Copies of the Student Code and Grievance Procedure are provided in the TCL Student Handbook, the Division Office, and the Learning Resources Center.

ATTENDANCE
The College’s statement of policy indicates that students must attend ninety percent of total class hours or they will be in violation of the attendance policy.

- Students not physically attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.
- Students taking an online/internet class must sign in and communicate with the instructor within the first ten calendar days from the start of the semester to indicate attendance in the class. Students not attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.
- Reinstatement requires the signature of the division dean.

In the event it becomes necessary for a student to withdraw from the course OR if a student stops attending class, it is the student’s responsibility to initiate and complete the necessary paperwork. Withdrawing from class may have consequences associated with financial aid and time to completion.

When a student exceeds the allowed absences, the student is in violation of the attendance policy. The instructor MUST withdrawal the student with a grade of “W”, “WP”, or “WF” depending on the date the student exceeded the allowed absences and the student’s progress up to the last date of attendance or under extenuating circumstances and at the discretion of the faculty member teaching the class, allow the student to continue in the class and make-up the work. This exception must be documented at the time the allowed absences are exceeded.

Absences are counted from the first day of class. There are no "excused" absences. All absences are counted, regardless of the reason for the absence.
- A student must take the final exam or be excused from the final exam in order to earn a non-withdrawal grade.

A copy of TCL’s STATEMENT OF POLICY NUMBER: 3-1-307 CLASS ATTENDANCE (WITHDRAWAL) is on file in the Division Office and in the Learning Resources Center.

HAZARDOUS WEATHER
In case weather conditions are so severe that operation of the College may clearly pose a hardship on students and staff traveling to the College, notification of closing will be made through the following
radio and television stations: WYKZ 98.7, WGCO 98.3, WGZO 103.1, WFXH 106.1, WWVV 106.9, WLOW 107.9, WGZR 104.9, WFXH 1130 AM, WLVH 101.1, WSOK 1230 AM, WAEV 97.3, WTOC TV, WTGS TV, WJWJ TV, and WSAV TV. Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. www.tcl.edu/textalert.asp

Emergency Text Message Alert
Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. Participants receive immediate notification of emergency events and weather cancelations via text messaging on their cell phones. Participants can also opt in to receive non-emergency news and announcements. Go to www.tcl.edu. On the homepage, click on “emergency TextAlert at TCL” and fill out the form or go to www.tcl.edu/textalert.asp

BROADCAST LEARNING FORMAT: This class is being taught in a broadcast learning format. Images and word of class participants may be transmitted live or on a delayed basis to other locations. Classes may be rebroadcast due to extenuating circumstance.

Course Evaluation
The grading scale is as follows:
90 - 100 = A
80 - 89 = B
70 - 79 = C
60 - 69 = D
Below 60 = F

Course Schedule/Outline
The class meets for 1 lecture/presentation hours per week for a total of 16 weeks during fall and spring semesters.

Week 1/ August 23

1. Hand out syllabus and talk about rules of class and school policies.
2. Show which book to use and where to get it.

Week 2/ August 23

1. Where does our water come from and what does it cost?
2. BJWSA website
3. Chapter 11 pg 252 - Ground water vs. surface water
4. Water efficiency issues
5. Check for leaks: Leaky toilets
6. Droughts and water levels in US.

Week 3/ September 13

2. High efficiency bathroom faucets.
3. Water Sense program – voluntary

Week 4/ September 20

2. Three type of flushing: Siphoning, Wash-down and Power assisted.
3. Troubleshooting toilets pg 466
4. Fixture type pg 119 - 122
5. Installation page 429 – 431
6. Buildinggreen.com / green products / plumbing

Week 5/ September 27

2. Buildinggreen.com / green products / Rainwater harvesting. Rainwater harvesting is the practice of collecting and using rainwater, most commonly from roofs. Use of collected rainwater can provide building owners with high-quality soft water for irrigation and potable uses, reduce pressure on water-treatment plants, and reduce stormwater runoff and flooding. To use as potable water, filtration and purification are necessary.
3. Reduce storm runoff and water pollution. Also reduces lot erosion.
4. ( http://www.harvestth2o.com/green_water_purification.shtml )
5. Rainwater Harvesting Basics (1) (2) Brad Lancaster ( http://www.youtube.com/watch?v=2iQ-FBAmvBw&feature=related )
Week 6/ October 4

1. LEED for Homes / Water Efficiency category.
2. Earthcraft House guidelines spec's.
3. NAHB spec's.
4. Liquid Assets on CNBC. Watch video.

Week 7/ October 11

1. Mid term Quiz

Week 8/ October 18

1. Outdoor use.
2. Graywater and blackwater Definitions is IRC.
3. Irrigations.

Week 9/ October 25

1. Solar thermal water heating.
2. Chapter 17 Hydonic heating.

Developed/Revised: October 14, 2010