CNST 6380 LEED AND GREEN CONSTRUCTION PRINCIPLES IN CONSTRUCTION MANAGEMENT

Version: July 27, 2017

Instructor

Dr. Kyungki Kim, Room 111B, Technology Annex Phone: 770-361-2252, Email: <u>kkim38@central.uh.edu</u>.

Course Description

The objective of this course is to familiarize the student with Green construction methods and benefits in applying the Leadership in Energy and Environmental Design (LEED) principles. The course is pragmatic in its approach and will afford the student not only opportunities to learn, but also to observe these principles in practice. This course will consist of a series of modules and student homework that will explore and illustrate the fundamental principles of green and sustainability. The lessons learned will be reinforced with homework assignments. There is no required textbook for this course. Many up-to-date modules will be supplied. By completing this course, the student will earn a letter of attestation from the advisor. This letter will qualify the student to take the LEED Green Associate exam.

Course Prerequisites

Graduate standing or consent of instructor.

Topics

- 1: Introduction and Overview
- 2: Background
- 3: Ecological Design
- 4: Green Building Assessment
- 5: The US Green Building Council LEED Building Rating System
- 6: The Green Globes Building Assessment System
- 7: The Green Building Design Process
- 8: The Sustainable Site and Landscape
- 9: Low-Energy Building Strategies
- 10: Built Environment Hydrologic Cycle
- 11: Closing Material Loops
- 12: Built Environment Carbon Footprint
- 13: Indoor Environmental Quality
- 14: Construction Operations and Commissioning
- 15: Green Building Economics
- 16: The Cutting Edge of Sustainable Construction

Exam and Assignment Schedule

Report 1: Open February 21, Due March 2
Online Exam 1 Prep Session (no submission): March 9
Online Exam 1: March 23
Report 2: Open March 23, Due March 31
Report 3: Open April 4, Due April 25

Online Exam 2 Prep Session (no submission): May 2 **Online Exam 2**: May 9

Grading Criteria

Three reports (10 points each): 30% Online exam 1: 30% Online exam 2: 40%

Academic Honesty

The instructor reserves the right to adjust letter grades, upward only, based on individual attendance and class participation if numerical grade warrants such consideration. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from The University. Since dishonesty harms the individual, all students, and the integrity of The University, policies on scholastic dishonesty will be strictly enforced.

Students with Disabilities

University of Houston provides, upon request, appropriate academic adjustments for qualified students with disabilities. Any student with a documented disability (physical or cognitive) who requires academic accommodations should contact the Center for Students with Disabilities (713/743-5400) for more assistance.

Exam Policy

Exams will include material covered in class discussions and homework assignments. Make-up exams will be given only in the event of a verified emergency or doctor-verified sickness. The student is responsible for all reading assignments and class handouts whether or not covered in class or listed on the syllabus.

Course/Instructor Evaluation

A course/instructor evaluation will be conducted in class during the last scheduled lecture. Any suggestions you have on improving the course, however, are welcome throughout the term. For detailed information about Disabilities, Religious Holy Days, the Academic Calendar, and Academic Honesty, and other information, please visit the UH website: http://www.uh.edu/provost/stu/stu_syllabsuppl.html

UH CAPS Statement

Counseling and Psychological Services (CAPS) can help students who are having difficulties managing stress, adjusting to the demands of a professional program, or feeling sad and hopeless. You can reach CAPS (UH main campus <u>www.uh.edu/caps</u>, or UH Sugar Land campus <u>http://www.uh.edu/dsaes/uhsugarland/</u>) by calling 713-743-5454 during and after business hours for routine appointments or if you or someone you know is in crisis. No appointment is necessary for the "Let's Talk" program, a drop-in consultation service at convenient locations and hours around campus.

UH main campus <u>http://www.uh.edu/caps/outreach/lets_talk.html</u> UH Sugar Land campus <u>http://www.uh.edu/dsaes/uhsugarland/</u>