

Course Syllabus – CNST 3155 Construction Materials Testing

Course Description:

This course introduces students to the properties, testing methods and interpretation of common construction materials with emphasis on concrete, steel, wood and soil.

Course Prerequisites:

C or Better in PHYS 1301 and MATH 1431

Textbook:

Not Available

Course Learning Outcomes:

Upon the completion of this course, students should be able to demonstrate the ability to:

1. Understand terminology and units related to engineering properties and testing of construction materials (aggregates, cement, concrete, steel, masonry, wood, and soil).
2. Understand terminology and selected standard test methods for construction materials.
3. Understand how to interpret select testing reports for construction materials.
4. Understand how to use the test results obtained from the laboratory in the construction process.

In addition to the learning objectives above, this course emphasizes Ethics, Safety, and Oral/Written Communication.

The Instructor reserves the right to modify this Syllabus regarding the quizzes, homework, exams and other information with the exception of the Course Prerequisites and Learning Objectives. Exams, Homework and Quizzes may be given online or by way of hardcopy and in-class seating.

Student Learning Outcomes:

7. Analyze construction documents for planning and management of construction processes
8. Analyze methods, materials, and equipment used to construct projects
15. Understand construction quality assurance and control.

Course and Student Learning Outcome Mapping:

Student Learning Outcome	Course Learning Outcomes
7	4
8	1
15	2,3

Student Learning Assessment and Assessment Target:

Assessment	SLO#7	SLO#8	SLO#15	Assessment Target
Support (S)	X			At least 70% of students receive a grade of 70 or better
Assess (A)		X	X	At least 70% of students receive a grade of 70 or better

Class Grading:

Assignments & Quizzes	10%
Pre-Mid-Term Test/Other Assignment	10%
Mid-Term	25%
Final Exam (all inclusive)	55%

Grading Scale:

Letter Grade	Score
A	93% - 100%
A-	90% - 92%
B+	86% - 89%
B	83% - 85%
B-	80% - 82%
C+	76% - 79%
C	73% - 75%
C-	70% - 72%
D+	65% - 69%
D	60% - 64%
F	< 60%

Note: During the semester, students are responsible for verification of correct score for their assignments, quizzes, and midterm exams. No corrections/modifications will take place after the last class.

Class Schedule:

Lectures	Lecture Topics
1	Safety Rules and Policies, Syllabus, Class
Before Mid-Term	<ul style="list-style-type: none"> • Concrete Mix Design • Concrete Aggregates • Field Tests (slump, air cylinders) • Concrete Curing, Compressive Tests • Fly Ash • Admixtures • Rebar • Concrete Test Reports • Concrete Cores
After Mid-Term	<ul style="list-style-type: none"> • Soil Plasticity Index • Sieve Analysis • % Passing No. 200 sieve • Soil classification • Soil Proctor Test & compaction • Footing construction observations • Soil stabilization/modification • Wood • Ethics • Geotechnical Report Review

*May be subject to change

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.

Assignment and Exam Policy:

Exams will include material covered in class discussions, Power Point presentations and assignments. Late Exams / Quizzes / Homework will not be accepted after the due date. Exam make-ups will be given only in the event of a verified emergency or doctor-verified sickness unless otherwise agreed to in advance by the Instructor.

Assignments/Homework/Exams accepted late will lose a minimum of one letter grade. 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 Start-Stop-Continue survey and a course/instructor evaluation will be conducted at the middle and the end of this semester. Any suggestions you have on improving the course, however, are welcome throughout the semester

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.

Classroom Behavior:

High level of professionalism in the classroom is expected. The instructor has the right to set the rules in his/her classroom. A student does not have the right to make changes to the instructor's way of managing the classroom. Disruptive behaviors, such as excessive talking, arriving late to class, and using unauthorized electronic devices during class is not permitted. Repetitive and seriously disruptive behavior may result in removal from class in accordance with policies and procedures set by the Dean of Students Office.

University Counseling and Psychological Services:

Counseling and Psychological Services (CAPS) can help students who are having difficulties managing stress, adjusting to college, or feeling sad and hopeless. You can reach CAPS (UH main campus www.uh.edu/caps, or UH Sugar Land campus <http://www.uh.edu/dsaes/uhsugarland/>) by calling [713-743-5454](tel: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: http://www.uh.edu/caps/outreach/lets_talk.html

UH Sugar Land campus: <http://www.uh.edu/dsaes/uhsugarland/>

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For detailed information about Disabilities, Religious Holy Days, the Academic Calendar, and Academic Honesty, and other information, please visit the following website:

http://www.uh.edu/provost/stu/stu_syllabsuppl.html

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