

Course Syllabus – CNST 2351

Construction Estimating-I

Introduction:

Due to the COVID 19 pandemic and ever-changing conditions, it has been determined that this course will be taught online this semester. It is unfortunate this has become the reality of teaching across all forms of education. Estimating and plan reading truly lends itself to a more hands-on approach and efforts to change the teaching style are changing. These efforts will continue to evolve for the foreseeable future. With that said, every effort is being made to make your continuing education as smooth as possible. This semester we will be doing away with printed drawing sets and will be moving to digital drawings and computer estimating programs.

Course Description:

This course introduces students to the skills and tools necessary to prepare cost estimates for construction projects. The course focuses on the blueprint reading and determination of quantities (materials takeoff) as derived from the plans and documents, and the use of takeoff software.

Course Prerequisites:

Credit for or concurrent enrollment in CNST 2321 or CNST 2325 or consent of instructor.
Students from the College of Architecture have consent of instructor to take CNST 2351 once they have completed any of the following: ARCH 2325, ARCH 2326, ARCH 2327.

Textbook:

Recommended Reading (not required for course) “Basic Estimating for Construction, 2nd ed”, by James A.S. Fatzinger Applied Cost Engineering by Forrest D. Clark Fundamentals of Construction Estimating, by Prat, Thomson Delmar Learning.

You will not be required to purchase the above referenced books, but they are recommended reading as they do have some good information in them. You will be required to purchase a ½ size set of drawings for the project we will be studying this semester. These drawings will be available in class on 1/24/2014. The cost is \$50 dollars and is a requirement. Cash only as checks or credit are not accepted.

Software:

This course will be using OnCenter On-Screen takeoff software. There are many videos on the use of this software on YouTube. Search “on-screen takeoff training” for more information. Software licenses will be issued by the College of Technology to all enrolled students free of charge. This program should be on your computer ready to use for the second class of the semester.

Course Learning Outcomes:

Upon the completion of the course students will demonstrate the ability to:

1. Read blueprints
2. Perform quantity takeoff for various work item
3. Utilize computer software to prepare required deliverables

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

Student Learning Outcomes:

4. Create construction project cost estimates
10. Apply electronic-based technology the construction process

Course and Student Learning Outcome Mapping:

Student Learning Outcome	Course Learning Outcomes
4	1,2

10	3
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Student Learning Assessment and Assessment Target:

Assessment	SLO#4	SLO#10	Assessment Target
Support (S)	X	X	At least 70% of students receive a grade of 70 or better

Class Grading:

Quizzes:	25%
Exam#1:	30%
Final Exam:	45%

Quizzes are given on a random basis online. There will be no make-up for quiz grades without prior consent or doctor's excuse and the maximum score on a make-up is 80 points. Approved make-up must be taken during the next class period. QUIZES WILL BE TAKEN ONLINE.

There will be no make-up for Mid-Term Exams without prior consent or doctor's excuse and the maximum score on a make-up is 80 points. MID-TERM WILL BE TAKEN ONLINE.

Missing the Final Exam is not an option because a make-up is not offered for the final exam. If the instructor is forced to give a makeup exam for compelling reasons, the student grade will drop by one letter grade due to the time extension beyond the scheduled time for the rest of the students....to be fair to others.

Class Schedule:

Week #	TOPIC
1	Introductions, general discussion of student and instructor expectations, basic estimating tools i.e. scales, etc. What is an estimate? What does it consist of? How do we get to the final pricing? Demonstration of OnScreen takeoff software.
2	Introduction to On-Screen Takeoff. Estimating Formulas and how they are applied.
3	Civil drawing review and explanation PART 1. What do they show us and how are they interpreted? Examples; Building Placement, SWPPP, Earthwork. Team exercise Site Utilities, Site Storm, Site accessories, Site Concrete, etc.
4	Civil drawing review and explanation PART 2. What do they show us and how are they interpreted? Examples; Site Utilities, Site Storm, Site accessories, Site Concrete, etc.
5	No lecture. Reading Assignments on Job Site safety.
6	Architectural drawing review and explanation PART 1. What do they show us and how are they interpreted? Examples; roof systems, interior and exterior elevations.
7	Architectural drawing review and explanation PART 2. What do they show us and how are they interpreted? Examples; interior and exterior schedules, overall Architectural review.
8	MID TERM EXAM
9	Structural drawing review and explanation PART 1. What do they show us and how are they interpreted? Examples; masonry, concrete foundation types, concrete piers.
10	Structural drawing review and explanation PART 2. What do they show us and how are they interpreted? Examples; concrete footings, concrete slabs, poured in place concrete walls, elevated concrete slabs, concrete slabs on metal decking, rebar and rebar placement, structural steel framing, misc. steel.
11	Electrical, HVAC, and Plumbing drawing review and explanation.
12	Electrical, HVAC, and Plumbing drawing review and explanation.
13	Final Review

14	Thanksgiving Holidays
15	Final Exam

Classroom and Attendance Policies:

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise.

1. Successful performance in this class requires that you attend class. Be understanding of the other members of your team. **Please do not be late to class.**
2. If you need to miss a class, discuss it with your team members and instructor. Make sure that you have taken measures to prevent any hardship on team members and that they in turn are ready to cover your absence. Also, understand that missed quizzes will not be made up and midterm and final tests will be made up if arranged prior to the test being taken by the rest of the class.
3. Cell phones need to be turned off during class. Cell phone calls, texting, or any other cell phone use will not be tolerated.
4. Web surfing during class or during a class exercise is not permitted unless specifically required as part of an assigned work project.

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.

Exam Policy:

Exams will include material covered in class discussions and homework assignments. Exam make-up will ONLY be given in the event of a verified emergency or doctor-verified sickness.

Assignments turned in late will be counted off 20 percent per day (only exceptions listed previously). The student is responsible for all reading assignments and class handouts whether or not covered in class or listed on the syllabus.

The last day of class is the deadline for students to verify their grades and the accuracy of their score. After this deadline, there will be no consideration for any changes.

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/>

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.

Course/Instructor Evaluation:

A Start-Stop-Continue survey & 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.

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/policies/student/resources/>.