

Course Syllabus – CNST 3365
Construction Estimating for Capital Projects
Fall 2020

General:

Instructor: Carmel Glumac
Email: masiddi5@central.uh.edu
Office Hours: By appointment via email to marvin@stagesopst.com who will respond within 24 hrs
Class Schedule: **Meets Online - Friday 4:00 PM – 7:00 PM – Online via Microsoft Teams (Class will be recorded)**
Course TA: Lakshmi Renuka Reddy Tamma
Email: trenukareddy1685@gmail.com

Course Description:

This course introduces students to the skills and tools necessary to prepare cost estimates for process and industrial projects. It focuses on different classes of estimates, labor and equipment productivity, material pricing, indirect/overhead costs, bid analysis, and use of computer aided software.

Course Prerequisites:

C or better in CNST 2351.

Textbook:

No textbook required. Course materials are posted in Blackboard LEARN (not Vista), please use your Cougarnet account to log in <https://elearning.uh.edu/webapps/portal/frameset.jsp>

Additional Reference:

- ✓ Richardson Process Plant Construction Cost Estimating Standards
- ✓ Peurifoy and Oberkender, Estimating Construction Costs, 5th ed., McGraw-Hill.
- ✓ Clark and Lorenzoni, Applied Cost Engineering, 3rd ed., CRC.

Computer Programs:

The Microsoft Excel program will be required to complete homework assignments and class projects inside and outside of the classroom.

The use of other programs such as Microsoft Word and PowerPoint might be required to complete assignments, quizzes, and safety moments.

Course Learning Outcomes:

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

1. Estimating terminology
2. Conceptual estimates
3. Detailed estimates for Process and Industrial Plants
4. Labor, equipment, and material pricing
5. Development of cost estimate package
6. Be familiar with computer aided-estimating programs

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
7. Analyze construction documents for planning and management of construction processes
10. Apply Electronic-Based Technology to Manage the Construction Process

13. Understand Construction Risk Management

Course and Student Learning Outcome Mapping:

Student Learning Outcome	Course Learning Outcomes
4	1,2,3,4
7	1,2,3,4
10	6
13	4

Student Learning Assessment and Assessment Target:

Assessment	SLO#4	SLO#7	SLO#10	SLO#13	Assessment Target
Support (S)			X		At least 70% of students receive a grade of 70 or better
Assess (A)	X	X		X	At least 70% of students receive a grade of 70 or better

Class Grading:

Safety Moment, Quizzes, Attendance & Homework	20%
Class Project	15%
Mid Term	30%
Final	35%

Grading Scale:

Letter Grade	Score
A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	< 60%

Class Schedule:

Week	Date	Lecture Topics	Quiz
1	28-Aug-2020	Course outline & classes of estimates	Estimating Baseline
2	4-Sept-2020	Conceptual estimates: Class 5 and 4 overview Capacity and equipment-factored estimate	--
3	11-Sept-2020	Class 3 and 2 detailed estimate overview Labor and equipment pricing	Conceptual Estimates
4	18-Sept-2020	Class 3 and 2 detailed estimate overview Labor and equipment pricing	--
5	25-Sept-2020	Estimating civil & concrete work Mid Term Review	Detailed Estimates
6	2-Oct-2020	Mid Term Exam	--
7	9-Oct-2020	Estimating steel construction work	Civil & Concrete
8	16-Oct-2020	Class Project	Steel
9	23-Oct-2020	Estimating piping system, Process equipment	--
10	30-Oct-2020	Estimating Electrical & Instrumentation Managing the estimating process	Piping/Equipment
11	6-Nov-2020	Guest Speaker: Erin Tang, Fluor – AWP (TBD)	--

12	13-Nov-2020	Contingency analysis Contract Negotiation	AWP
13	20-Nov-2020	Estimate Reviews Estimating Technology	E&I
14	26-Nov-2020	Thanksgiving Holiday	Contingency
15	4-Dec-2020	Class Project Final Exam Review	--
16	11-Dec-2020	Final Exam	--

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.

Academic Honesty:

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 & Exam Policy:

Our industry is built on utmost respect for agreements, deadlines, delivery on-time, and quality of product, ability to work under pressure, and time management. Time management is an essential skillset. NO late assignments, quizzes, or exams will be accepted. Quiz and exam make-up will NOT be given, with only exception in the rare event of a verified emergency. Please note that travel, conflicts with work schedules, family events etc. are not considered in this course as emergency for missing exams and quizzes. Quizzes and exams will include material covered in class lecture, exercise, discussions, and homework.

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/>

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.

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

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/>.