GENERAL
Course Instructor: Dr. Lingguang Song
Course Time: Friday 4:00 – 7:00 PM
Office Hours: By appointment via email to Lsong5@uh.edu, will respond within 24 hrs
Office location: 111D T1
Contact Information: Lsong5@uh.edu / 713-743-4377

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
CNST 2351 (Construction Estimating I)
By enrolling in this course you acknowledge that you have completed this prerequisite course.

LEARNING OBJECTIVES
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, material pricing
5. Development of cost estimate package

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

TEXTBOOK
No textbook required. Course materials are posted in Blackboard, please use your Cougarnet account to log in https://accessuh.uh.edu

Additional Reference
- Richardson Process Plant Construction Cost Estimating Standards
- Clark and Lorenzoni, Applied Cost Engineering, 3rd ed., CRC.
GRADING

Participation 10%
Quiz & Assignment 40%
Final Exam 50%

PLANNED SCHEDULE OF TOPICS

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<th>Week</th>
<th>Lecture Topics</th>
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<tr>
<td>1</td>
<td>Course outline &amp; classes of estimates</td>
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<td>2</td>
<td>Conceptual estimate: Class 5 capacity-factored estimate</td>
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| 3    | Quiz 1 Estimating & Class 5 estimate  
Conceptual estimate: Class 4 equipment-factored estimate |
| 4    | Quiz 2 Class 4 estimate  
Class 3 detailed estimate overview  
Labor and equipment pricing |
| 5    | Excel applications for estimating |
| 6    | Estimating using RSMeans |
| 7    | Quiz 3 RSMeans  
Estimating site & concrete work |
| 8    | Quiz 4 Foundation work quiz  
Estimating steel construction work |
| 9    | Timberline 1: Set up Timberline database |
| 10   | Timberline 2: Use Timberline to do estimate  
Contract negotiation exercise |
| 11   | Estimating piping system |
| 12   | Estimating process equipment & erection |
| 13   | Contingency analysis  
Managing estimating process |
| 14   | Final exam |

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.

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.
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.

COURSE/INSTRUCTOR EVALUATION
A mid-term Start-Stop-Continue survey and a final course/instructor evaluation will be conducted during 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

The instructor has the discretion to make changes to this syllabus as circumstances require.