General
Course Instructor: Greg Liggin
Course Time: 2:30 – 5:30 PM, Friday
Contact Information: gliggin@bartlettcocke.com

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).

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. The cost is $50 dollars and is a requirement. Cash only as checks or credit are not accepted.

Learning Objectives
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.

Grading
Homework and Assignments 10%
Quizzes 20%
Mid Term 20%
Final Exam 50%
# SCHEDULE OF TOPICS

<table>
<thead>
<tr>
<th>Week #'s</th>
<th>TOPIC</th>
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<tbody>
<tr>
<td>1</td>
<td>Introductions, general discussion of student and instructor expectations, basic estimating tools i.e. scales, etc., selection of teams if time permits. Issue construction documents.</td>
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<tr>
<td>2</td>
<td>CSI formats. Issue drawings and review Architectural and Engineering scales and their use.</td>
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<tr>
<td>3</td>
<td>Civil drawing review and explanation <strong>PART 1</strong>. 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. Team exercise.</td>
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<tr>
<td>4</td>
<td>Civil drawing review and explanation <strong>PART 2</strong>. What do they show us and how are they interpreted? Examples; Site Utilities, Site Storm, Site accessories, Site Concrete, etc. Team exercise.</td>
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<tr>
<td>5</td>
<td>Architectural drawing review and explanation <strong>PART 1</strong>. What do they show us and how are they interpreted? Examples; floor plans, wall types, door and window systems. Team exercise.</td>
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<tr>
<td>6</td>
<td>Architectural drawing review and explanation <strong>PART 2</strong>. What do they show us and how are they interpreted? Examples; roof systems, interior and exterior elevations. Team exercise.</td>
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<tr>
<td>7</td>
<td>Review for Mid Term Exam.</td>
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<tr>
<td>8</td>
<td><strong>MID TERM EXAM</strong></td>
</tr>
<tr>
<td>10</td>
<td>Structural drawing review and explanation <strong>PART 1</strong>. What do they show us and how are they interpreted? Examples; masonry, concrete foundation types, concrete piers. Team exercise.</td>
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<tr>
<td>11</td>
<td>Structural drawing review and explanation <strong>PART 2</strong>. 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.</td>
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<tr>
<td>12</td>
<td>Electrical drawing review and explanation. What do they show us and how are they interpreted? Examples; power, lighting, control systems, fixtures, switches, panel boxes, Etc</td>
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<tr>
<td>13</td>
<td>HVAC drawing review and explanation. What do they show us and how are they interpreted?</td>
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Plumbing and HVAC drawing review and explanation. What do they show us and how are they interpreted?

Review For Finals.

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.
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.

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. Exam make-up 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 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