

**RINKER SCHOOL OF CONSTRUCTION MANAGEMENT
UNIVERSITY OF FLORIDA**

COMPREHENSIVE ESTIMATING

COURSE NUMBER: BCN 5618C

TERM: SPRING 2016

NUMBER OF CREDIT HOURS: 3

“Estimating is the most important of the practical aspects of construction management, and the subject deserves the closest attention of one aspiring to a career in the profession.”

CLASS LOCATION: Rinker Hall Room 215

CLASS MEETING TIMES: M 1:55 - 3:50 PM AND W 12:50 – 2:45 PM

INSTRUCTOR: Abdol Chini (RNK 332, chini@ufl.edu, 352-273-1165)

OFFICE HOURS: M AND W 10:30 AM – 12:30 PM

COURSE WEBSITE: <http://lss.at.ufl.edu>

REQUIRED MATERIALS:

1. Textbook: Dagostino, Frank R. and Peterson, Steven J., *Estimating in Building Construction*, 8th Edition, Prentice Hall (required).
2. Software: a) CostWorks by RS Means (<http://www.meanscostworks.com/>); student fee for a 12-month subscription is \$80; b) OnScreen Takeoff Software, available at the BCN computer lab.
3. Contract Documents: Drawings and Specifications for the “St. Augustine Airport Multi-purpose Building” project. The electronic version of the contract document is available on the course website and one hard copy of the drawings will be provided to each team within the first month of the semester.

COURSE DESCRIPTION:

Classification of work and quantity survey techniques. Analysis and determination of costs of construction operations including direct and overhead costs, cost analysis, and preparation of bid proposals.

PREREQUISITE KNOWLEDGE AND SKILLS:

Graduate Standing; able to read and measure plans; have knowledge of algebra, geometry, and trigonometry; be familiar with construction materials and methods.

PURPOSE OF COURSE:

To teach the student the background and skills necessary to accurately estimate the cost of construction projects, prepare a complete and concise report of the estimated costs, submit a formal bid package, and use IT to assist in the preparation of the estimate.

COURSE LEARNING OUTCOMES:

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

- ① *Recognize different types of estimates and their uses*
- ② *Perform quantity takeoffs based on the drawings and specifications and generate detailed estimates*
- ③ *Accurately estimate the cost of construction projects including direct and indirect costs*
- ④ *Assemble a complete and concise report of the estimated costs of a project and submit a formal bid package*
- ⑤ *Prepare and use construction cost data bases and use IT to assist in the preparation of the estimate*

ASSESSMENT METHODS AND TARGETS:

| Assessment | CLO 1 | CLO 2 | CLO 3 | CLO 4 | CLO 5 | Target |
|-------------------|--------------|--------------|--------------|--------------|--------------|---------------------------------------|
| Quiz 1 | X | | | | | At least 80% receive a 70% or better |
| Assignment 6 | | | | | X | At least 80% receive an 80% or better |
| Final Exam | | X | | | | At least 80% receive a 70% or better |
| Project | | | X | X | | At least 80% receive an 80% or better |

TEACHING PHILOSOPHY:

My success as a teacher is determined by accommodating my students' needs. I continuously seek their feedback to know how they are doing, and to adapt instruction to meet their needs. I establish an environment that encourages students to offer comments, give opinions, ask questions, and share their knowledge. I also give them feedback to know how they are doing and what they can do to improve. In that respect, I grade and return all quizzes and exams promptly.

INSTRUCTIONAL METHODS:

The class meets two lecture hours and two lab hours per week. The lab hours will be used for review of different set of drawings, problem solving, case studies, attending the computer lab, field trips, guest speakers, and quizzes and exams.

COURSE POLICIES:

ATTENDANCE POLICY:

Attendance is required. Instructor may choose the days for taking the rolls. Attendance grade will be computed in proportion to the number of presence on the days the rolls were taken.

QUIZ/EXAM POLICY:

There will be two exams during the semester and a final comprehensive exam. The dates of the exams are provided in the course schedule. Four to five pop' quizzes will be given throughout the semester.

MAKE-UP POLICY:

No make-up tests will be given, unless arrangements are made prior to your absence. No make-up quizzes will be given

ASSIGNMENT POLICY:

Assigned homework problems are due at the beginning of the next lecture period. Late homework will not be accepted and student will receive a zero on the assignment. All work turned in for this course is expected to be of professional quality in content and presentation. Homework problems may be graded by detailed checking or based on overall attempt. Instructor may choose not to grade some homework. Homework grade will be computed according to these policies.

COURSE TECHNOLOGY:

Two estimating software will be used in this course: a) CostWorks by RS Means (<http://www.meanscostworks.com/>); student fee for a 12 month subscription is \$80; and b) OnScreen Take-off Software, available for free at the BCN computer lab.

UF POLICIES:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES:

Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT:

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <http://www.dso.ufl.edu/students.php>. Although joint work on assignments may be acceptable in some cases, duplication of an assignment, both manually or by computer will be considered

an act of academic dishonesty and dealt with accordingly. On all work submitted for credit by students at the university, the following pledge is either required or implied: **"On my honor, I have neither given nor received unauthorized aid in doing this assignment."**

GETTING HELP:

For issues with technical difficulties for E-learning in Canvas, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

GRADING POLICIES:

| Assignment | Percentage |
|----------------------|------------|
| 2 Tests @ 17.5% each | 35% |
| Final Exam | 20% |
| Term Project | 20% |
| Homework | 15% |
| Quizzes | 5% |
| Attendance | 5% |
| Total | 100% |

GRADING SCALE:

Grades will be computed according to the following scale:

A=93-100; A- =90-92.9; B+ =87-89.9; B=83-86.9; B- =80-82.9; C+ = 77-79.9; C=73-76.9; C- =70-72.9; D+ =67-69.9; D=63-66.9; D- =60-62.9; E<60.

| Grade Values for Conversion | | | | | | | | | | | | |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|-----|-------------------|
| Letter Grade | A | A- | B+ | B | B- | C+ | C | C- | D+ | D | D- | E, I, NG, S-U, WF |
| Grade Points | 4.0 | 3.67 | 3.33 | 3.00 | 2.67 | 2.33 | 2.00 | 1.67 | 1.33 | 1.00 | .67 | 0.00 |

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu>.

COURSE SCHEDULE:

| <u>Week</u> | <u>SUBJECT AND COVERAGE</u> | <u>ASSIGNMENT</u> |
|---------------------------------|---|---|
| 1-2 | Introduction, Contracts, Project Manual, the Estimate, Overhead and Contingencies | HW#1:C1 (Q5, 7, 8) C2 (Q1-3, 8, 12) C3 (Q8-11), C4 (Q3, 4, 6) |
| 3 | Labor and Equipment | HW#2: C6 (Q2, 4, 6) C7 (Q3, 4, 23, 26, 28, 30), C8 (Q1, 4, 8) |
| 4 | Sitework | HW#3 |
| 5-6 | Concrete | HW#4 |
| February 15th | Test #1 | Chapters 1 thru 10 |
| 8 | Masonry | HW#5 |
| 9 | Spring Break | |
| 10 | Computer-Assisted Estimating | HW #6 |
| 11 | Metals | HW #7 |
| 12 | Wood | HW#8 |
| March 28th | Test #2 | Chapters 11 thru 13 |
| 14 | Thermal and Moisture Protection, Doors and Windows | |
| 15 | Finishes; Electrical; Plumbing; and HVAC | |
| 16 | General Conditions, Subcontractor's Bid Analysis; Conceptual Estimating | |
| April 27 | Final Project Due (4:30 PM, RNK 332) | |
| April 28 | Final Exam (10:00 AM - 12:00 PM, RNK 215) | Comprehensive |
| First day | Wednesday 6 th August | |
| No Class | 18 January, MLB; 29 February, and 2 March, Spring Break | |
| Last Day | Wednesday 20 April | |

Disclaimer: This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.