

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

## **COMPREHENSIVE ESTIMATING**

**COURSE NUMBER:** BCN 5618C

**TERM:** SPRING 2020

**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 240

**CLASS MEETING TIMES:** TU AND TH 10:40 AM - 12:35 PM

**Instructor:** ABDOL CHINI (ARC 331D, [CHINI@UFL.EDU](mailto:CHINI@UFL.EDU), 352-294-1407)

**OFFICE HOURS:** TH 1:00- 3:00 PM OR BY APPOINTMENT

**COURSE WEBSITE:** <http://elearning.ufl.edu>

**REQUIRED MATERIALS:**

1. Textbook: Peterson, Steven J. and Dagostino, Frank R., *Estimating in Building Construction*, 9<sup>th</sup> Edition, Pearson (required).
2. Software: a) CostWorks by RS Means (<https://www.rsmeansonline.com/>); student fee for a 12-month subscription is \$110; b) OnScreen Takeoff Software, available at the Rinker Hall 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 student after Test 2.

**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:

- ❶ Recognize different types of estimates and their uses
- ❷ Perform quantity takeoffs based on the drawings and specifications and generate detailed estimates
- ❸ Accurately estimate the cost of construction projects including direct and indirect costs
- ❹ Assemble a complete and concise report of the estimated costs of a project and submit a formal bid package
- ❺ 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 types 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. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

### 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 pop' quizzes will be given throughout the semester.

### CLASS ATTENDANCE POLICY:

When you are in class, these are the guidelines you should follow:

- Pay attention.
- Do not talk to fellow students during class.
- If you are using a laptop during lecture, use it only for the purpose of taking notes and following along with our topic of discussion. Do not play games, chat, or create any similar distractions for yourself and your classmates during lecture. **Turn off your cell phone, laptop speakers, and all other electronic devices before lecture begins.**

### 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 (<https://www.rsmeansonline.com/>); student fee for a 12 month subscription is \$110; 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 <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>. 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](mailto:Learning-support@ufl.edu)
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

**GRADING POLICIES:**

Assignment	Percentage
2 Tests @ 20% each	40%
Final Exam	25%
Term Project	15%
Homework	12%
Quizzes	4%
Attendance	4%
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 professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

## 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 (Q3, 6-8, 12) C3 (Q8-11), C4 (Q3, 4, 7)
3-4	Labor and Equipment	HW#2: C6 (Q2, 5, 9) C7 (Q3, 4, 22, 25, 27, 30), C8 (Q1, 4, 9)
5	Site work	HW#3
6, 7	Concrete	HW#4
<b>February 27<sup>th</sup></b>	<b>Test #1</b>	<b>Chapters 1 thru 11 (except 5 and 9)</b>
9	Masonry	HW#5
10	Computer-Assisted Estimating	HW#6
11	Metals	HW#7
12	Wood	HW#8
<b>April 2<sup>nd</sup></b>	<b>Test #2</b>	<b>Chapters 12 thru 14</b>
14	Thermal and Moisture Protection, Openings, Finishes, Electrical; Plumbing; and HVAC	
15	Scope of work, Subcontractors Bid Analysis, Conceptual Estimating	
<b>April 29<sup>th</sup></b>	<b>Final Project Due (4:30 PM, ARC 331D)</b>	
<b>April 30<sup>th</sup></b>	<b>Final Exam (10:30 AM -12:30 PM- RNK 240)</b>	<b>Comprehensive</b>
First day	Tuesday, January 6 <sup>th</sup>	
<b>No Class</b>	<b>Spring Break – March 3<sup>rd</sup> and 5<sup>th</sup></b>	
Last Day	Tuesday, April 21 <sup>st</sup>	

*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.*