M.E. Rinker, Sr.
School of Building Construction
University of Florida

BCN 3611C
Construction Estimating I
Fall 2015

Course: BCN 3611C
Sections: 9533
Class Room: Rinker 215
Class Times:
Monday Period 4 (10:40 to 11:30) and
Wednesday Period 4 (10:40 to 11:30)

Lab Times:
Friday Periods 3 and 4 (9:35 to 11:30)

Instructor: Mike Robey
Office: RNK 328
Email: mrobey@ufl.edu
Office Hours:
Mon. and Wed.
Periods 3 and 5 or by apt

Course Description

Estimating is a critical function of any construction operation since cost is often the determining factor in whether or not a project is built. Project cost directly relates to the size, scope and quality of the construction. The ability to accurately and efficiently determine construction costs directly affects the profitability, reputation and ultimately the success of the construction business entity.

Method

The class consists of two one-hour lecture/discussion periods per week with corresponding reading assignments from handout materials and one two-hour lab period per section. Reading assignments should be done before the class in which they are discussed. Students are responsible for the content of all reading materials whether or not the material is covered in class. STUDENTS are responsible for class preparation and performance.

Course Content

This course will provide the student with an introduction to the construction estimating process. This is the first of the series of two courses in Construction Estimating. This course will focus on the basic skills and techniques related to estimating in the construction process. Basic skills to be covered will include quantity takeoffs for various work items and materials, organizing the estimate, plan reading, and terminology. The class will focus primarily on learning how to accurately and efficiently determine quantities of work and materials as a foundation to estimating. Construction terminology along with plan reading, construction techniques and materials will all be discussed as needed to perform takeoffs.

Course Learning Outcomes

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

1. Understand the significance of estimating to the construction industry and identify the duties, responsibilities, and risks associated with construction estimating. (ACCE SLOs 4, 13)
2. Recognize different types of estimates and their uses. (ACCE SLO 4)
3. Read and interpret the drawings and specifications. (ACCE SLO 7)
4. Perform quantity takeoffs based on the drawings and specifications and generate detailed estimates. (ACCE SLO 4)
5. Use computer to assist in quantity takeoffs. (ACCE SLOs 4, 10)
6. Be aware of the ethical questions that arise in construction estimating. (ACCE SLO 6)

SACS = Southern Association of Colleges and Schools
ACCE = American Council for Construction Education
SLO= Student Learning Outcome

SACS 2: Survey and quantify building components to estimate project costs, analyze progress, and control expenditures.
ACCE SLO 4 (I): Create construction project cost estimates.
ACCE SLO 6 (R): Ethics
ACCE SLO 7 (R): Documentation
ACCE SLO 10 (I): Apply electronic-based technology to manage the construction process.
ACCE SLO 13 (R): Risk

Assessment Methods and Targets

ACCE	SLO 13			SLO 4/ 7	SLO 10	SLO 6	
Assessment	CLO 1	CLO 2	CLO 3	CLO 4	CLO 5	CLO 6	Targets
Exam 1	X	X		X			At least 80% receive a C- or better
Exams 2,3			X	X			At least 80% receive a C- or better
Ethics Assignment						X	At least 80% receive a B- or better
OTO Lab					X		At least 80% receive a B- or better
Final Project			X	X			At least 80% receive a B- or better

Honor Code

Students are expected to comply with the spirit and intent of the University of Florida Honor Code, which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." Students are required to bring a photo ID to all tests to be presented to the proctor upon completion of the exam.

Course Materials

Course materials will include drawings and other handouts. There is no text required for this class.

Suggested reading: Dagostino, Frank R. and Leslie Feigenbaum, Estimating in Building Construction, Latest Edition, Prentice Hall

Frank R. Walker (editor), Walker's Building Estimator's Reference Book , Latest Edition, Frank R. Walker Company

Quizzes

There will be several quizzes during the semester. Quizzes will be conducted during the first ten minutes of the class, so do not be late for class. There will be no makeup quizzes. **All quizzes are CLOSED-BOOK and CLOSED-NOTES.**

Grading Policy

Final grades will be on a similar scale as follows depending on work covered during the semester:

Exams 3 each at 100 pts. Each	300
Quizes/Attendance	150
Labs (Group)	150
Final Project (Group)	150
Ethics Assignment (Individual)	25
Class Notebook	25
Total	800

Grades will be given 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 less than 60

Exams

Exams are individual and will be scheduled during the two hour lab periods. Exams will be based on previously covered material and are not cumulative. It is your responsibility to be at the exams on time. (Check the Course Outline page for exams schedule.) Exams will cover previous lecture and labs. Absence for any exam without prior notice is not acceptable. If you cannot attend an exam, you must contact your professor before the day of the exam to arrange for a makeup. If you suddenly get sick the day of the exam, the professor will require a doctor's note in order to arrange a makeup. Note that job interviews, or early vacation plans will not be considered a valid excuse for missing an exam: *mark your calendars now and plan around these times*. The penalty for a missed exam is a zero grade on that exam.

All lab assignments / project reports should be handed over on their due dates. Failure to do so will result in decreasing your grade by 20% for every day late.

Attendance/ Participation

This course is heavily dependent on class attendance and participation. Maximum grade points can only be earned through attendance at each scheduled class and lab and by active participation in the class discussion and activities.

Laptop Policy

Laptop computers may be used in the classroom *only* as its use relates to the class for note taking or assignments; or as directed by the professor. Failure to adhere to this policy will result in penalty on the class participation grade.

Construction Estimating I

Course Schedule

Lectures	Lab
Week 1 Introduction to Construction Estimating I	On-Screen Takeoff Software Lab
Week 2 Organizing the Estimate, Specifications, CSI Divisions	Plan Organization, Takeoff Skills

Week 3 Sitework and Utilities	Takeoff Sitework and Utilities
Week 4 Concrete	Takeoff Concrete
Week 5 Masonry	**EXAM #1**
Week 6 Structural Steel and Metals	Takeoff Str. Steel and Metals
Week 7 Wood and Framing	Takeoff Framing, Carpentry
Week 8 Thermal and Moisture Protection	Takeoff Thermal and Moisture Protection
Week 9 Doors and Windows	Takeoff Doors and Windows
Week 10 Finishes (Gyp. Board, Tile, Ceilings, Flooring, Acoustics, Painting)	**EXAM #2**
Week 11 Specialties, Equipment and Furnishings	Takeoff Finishes

Week 12 Mechanical, Plumbing, Electrical	Takeoff MEP
Week 13 Specialties, Equipment and Furmishings	Takeoff Specialties, Equipment and Furnishings
Week 14 Computers and Technology in Estimating	Thanksgiving Break
Week 15 General Requirements	General Requirements Takeoff
Week 16 Final Project Work Period	**EXAM #3**
Finals Week Final Project Due	