

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

BCN 4612C – Estimating II

Spring 2021

3 Credits

Instructor: Dr. Aladdin Alwisy, RNK 311, Rinker Hall
aalwisy@ufl.edu , Phone: 273-1157

Prerequisites: BCN 3611, Senior Standing

Description: Analysis and determination of the cost of construction operations including labor, materials, subcontractor costs, and the associated indirect and overhead costs and profit. Conceptual estimating is introduced and used as a tool to review a project's feasibility, initiate value engineering analysis and establish budgets. Extensive analysis of material supplier, subcontractor and labor quotes for each technical section. Bidding various technical sections as a subcontractor and bid day simulation using estimating software. Post bid issues including change orders, schedule of values, contract modifications and professional ethics are discussed.

Method: Four (4) hour combination lecture/laboratory contact hours per week.

Objectives: The student will be able to identify the duties and responsibilities of the professional estimator, and will have the skills and confidences needed to understand and accurately estimate and bid commercial and residential construction projects. To help the student recognize that having the ability to accurately estimate the cost of any construction activity is a necessary and fundamental require in any construction career path.

Required Texts: *Means Building Construction Cost Data, latest edition, R.S. Means Co., Inc., Kingston, MA
(*may be available online)

Recommended Text: Fundamentals of Construction Estimating, Pratt, Delmar Publishing, latest edition.
Construction Estimates from Take-off to Bid, Norman Foster, McGraw-Hill Book Co., latest edition.

Other Requirements: EXCEL spreadsheet, software applications as necessary

Classes Mondays and Wednesdays (Period 2) 8:30 - 9:20 AM (**Online Only**)
<https://ufl.zoom.us/meeting/register/tJwoceusqD0pHt21Mlp18V-6vsYruOAUqxnc>
Passcode: **BCN4612_MW**

Thursdays (Period 6 & 7) 12:50 - 2:45 PM (**Online & On Campus**)
https://ufl.zoom.us/meeting/register/tJEkdu-trT4iGtGmibVEljMJtuK_n0QNA090
Passcode: **BCN4612_TR**

On Campus: RNK 215

Office Hours Online:
Thursdays (Period 8-9) 3:00 - 4:55 PM
<https://ufl.zoom.us/j/92373133997>

By Appointment:
Email aalwisy@ufl.edu. Subject line should read *BCN 4612 APPOINTMENT REQUEST-<your name>*.

Provide a brief description of what you want to discuss. Also please suggest one or two alternate times for scheduling other student requests. I will send you an e-mail about the appointed time.

TA: TBD

Attendance: Attendance is mandatory. You have three unexcused absences. To have an absence excused, you need to bring proof of why it was unavoidable (doctors note, etc.)

Quizzes: NO MAKEUP QUIZZES.
Quiz results must be discussed in person within 24 hours after the quiz has been taken. After 24 hours the grade is final. Makeup exams will not be given.

Final Exam: Final exam will be available online on **(TBD)**.

Bonus points: Bonus points opportunities will be given through the semester in class.

Grade Makeup: Final grades will be calculated as follows:

Attendance	50
Homework	100
Quizzes	250
Exams (4@15%)	600
	<hr/>
	1000

Grade Scale: Divide the total points you earn by **1000 total possible points**. Grades will be given according to the following scale. **Decimal points will not be Rounded.**

Letter Grade	Numeric Grade
A	≥ 93
A-	≥ 90 AND < 93
B+	≥ 87 AND < 90
B	≥ 83 AND < 87
B-	≥ 80 AND < 83
C+	≥ 77 AND < 80
C	≥ 73 AND < 77
C-	≥ 70 AND < 73
D+	≥ 67 AND < 70
D	≥ 63 AND < 67
D-	≥ 60 AND < 63
F	<60

Student Evaluations: 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/>.

Accommodations: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Honor Code: All students in this course are subject to the requirements of the University of Florida’s Honor Code <https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>. Cheating will not be tolerated. Although joint work on assignments may be acceptable in some cases, duplication of an assignment either manually or electronically will be dealt with as an act of academic dishonesty. “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

Counseling: Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx> (Links to an external site.), 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies

Reservations And Remedies: The instructor reserves the right to modify the course schedule, grade make-up, grade scale, modules, and any other aspect of the course as deemed fit throughout the term without notice. The updated Syllabus will be uploaded on the course’s Canvas. For any questions, issues, or concerns about the course (assessment, policies, schedule, etc.), please contact the instructor to remedy them.

Weekly Course Schedule:

Week/ Date	Topic/Assignment (Question/Subject)
Week 1	Course introduction / important role of estimating Plan reading review, Complete and Accurate Estimates, organization of the specifications and introduction to CONSTRUCTION COST DATA, location modifiers, and Conceptual Estimating. Pre-Class Fundamentals Exam

Week/ Date	Topic/Assignment (Question/Subject)
Week 2	<p>Conceptual estimating using accepted techniques and recognized cost data references. Applying Time, Location and Size considerations to conceptual estimates.</p> <p>Conceptual Estimate Assignment</p>
Week 3	<p>General requirements for takeoff and pricing. Project characteristics in relation to general requirements.</p> <p>General Requirements Assignment</p> <p>Review for first examination.</p>
Week 4	<p>Introduction to subcontractor bid analysis and its importance.</p> <p>Utilization of estimating software / templates and data bases.</p> <p>Value Engineering EXAMINATION #1</p>
Week 5	<p>Spreadsheet layout and organization.</p> <p>Concrete takeoff and pricing. Use MEANS. Scope of work issues.</p> <p>Analysis of sample concrete subcontractor proposals and concrete supplier proposals.</p>
Week 6	<p>Continue with scope of work issues.</p> <p>Analysis of Sitework subcontractor proposals.</p> <p>Analysis of prime contractor estimating for heavy/civil construction. Scope of work issues and spreadsheet layout. Use MEANS.</p>
Week 7	<p>Estimating for different contract types.</p> <p>Cost comparison as a part of cost estimating.</p>
Week 8	<p>Estimating a unit price contract.</p> <p>EXAMINATION #2</p>
Week 9	<p>Masonry quantity takeoff and pricing. Scope of work issues.</p> <p>Analysis of sample masonry subcontractor and supplier proposals.</p> <p>Masonry Estimating Assignment</p>
Week 10	<p>MEP Focus.</p>

Week/ Date	Topic/Assignment (Question/Subject)
	<p>Mechanical and Electrical subcontractors to assist in reviewing Mechanical and Electrical estimate activity.</p> <p>Examination #3 review</p>
Week 11	<p>Finishes quantity takeoff and pricing. Scopes of work analysis</p> <p>EXAMINATION #3</p>
Week 12	<p>Structural Steel quantity takeoff and pricing. Use MEANS CCDM. Scope of work issues.</p> <p>Analysis of structural steel subcontractor and supplier proposals. Spreadsheet application to organize proposals for analysis.</p> <p>Estimating the cost of equipment</p>
Week 13	<p>Continue estimating the cost of equipment.</p>
Week 14	<p>Estimating for different delivery systems.</p> <p>Bid Simulation. Preparation of the bid package. Factors affecting and impacting the bidding process. Logistics issues and bidding philosophies. Preparing for bid day!</p>
Week 15	<p>Independent Cost Estimates</p> <p>Change Orders and Supplemental Agreements.</p>