COLLEGE OF ENGINEERING

UNT

Department of Engineering Technology

CNET 3160 – Construction Cost Estimating

Section 001/301 – Fall 2017 Syllabus

Meeting Times: Mon.: 8:30 a.m. – 10:20 a.m. (Lecture)
Mon.: 10:30 a.m. – 1:20 p.m. (Lab)

Meeting Room: NTDP B142

INSTRUCTOR	**Aloysius (Al) Attah, P.E.**
OFFICE	NTDP F115G
PHONE	(940) 565 – 2022
OFFICE HOURS **Mon:** 1:30 p.m. – 3:30 p.m. **Tue:** 9:00 a.m. – 10:00 a.m.; 11:00 a.m. – 1:00 p.m. **Wed:** 9:30 a.m. – 10:30 a.m.; 1:30 p.m. – 2:30 p.m. **Thu**: 9:30 a.m. – 10:00 a.m.; 1:30 p.m. – 3:00 p.m. OR By appointment	
E-MAIL: aloysius.attah@unt.edu	

EVALUATION	
Lab Exercises	30%
Midterm Exam	20%
Bid Submission	20%
Final Exam	30%
TOTAL	100%

COURSE OBJECTIVES:

At the conclusion of this course, you should be able to:

- *explain* the estimation process for construction projects, including bid preparation, project progress, and closeout.
- *carry out* estimation procedures for the various aspects of a construction project.
- *utilize* computer methods, including Excel and OnCenter estimation software, to carry out estimation from plan sets.
- *prepare* a complete bid submission for a typical construction project.

COURSE POLICY/GRADING:

Lab Exercises and Bid Submission:

- There will be 6 lab exercises worth 30% of the overall course grade.
- The exercises will be done in groups of 3 to 4, all of whom will receive the same grade for the exercises.
- These exercises will be due strictly based on the schedule shown in the course outline, unless otherwise specifically stated by the instructor.
- The exercises will be graded based on four areas:
  - organization (format) and completeness of submission
  - adherence to procedure
  - written discussion of exercise in relevant sections
  - accuracy of results
- The reports must follow a prescribed format to be provided.
- **Only one late lab exercise will be accepted during the semester**. It must be submitted no later than the next lab session following the due date, and it will be graded at a 40% penalty (i.e. the maximum grade possible will be 60%).

- The bid submission:
    - is a culmination of the work done for the lab exercises
    - is a separate submission, to be submitted by each group.
    - will have separate grading criteria to be provided.
    - must be submitted on the due date; **no late submissions will be accepted**.

Exams:

- There will be a midterm exam in Week 9, worth 20%, covering all material through Lab Exercise #4 and Presentation #8.
- A final exam worth 30% of the overall course grade will be given during the final exam period.
- Exams will be cumulative, covering all topics covered including:
    - All presentations and any topics discussed in class
    - Any chapters of the text noted in the outline
    - Any work carried out to complete lab exercises and the bid submission
- All exams will be open book and notes.

Other Policies:

- This course will adhere to UNT academic policies, including those for academic integrity (http://vpaa.unt.edu/academic-integrity.htm) and overall conduct (http://deanofstudents.unt.edu/conduct). It is your responsibility as a UNT student to be familiar with these policies, but feel free to ask the instructor any questions pertaining to these.
- Any accommodations for differing abilities will be made for this course as per the policies and determination of the Office of Disability Accommodation: http://disability.unt.edu/

COURSE MATERIALS:

- *Construction Estimating Using Excel (2nd Edition)* by Steven J. Peterson (Prentice Hall, 2012, ISBN 978-0138007195) – available at the bookstore, online, etc.
- Additional materials to be provided in class/on website, including excerpts from manuals, etc.

COURSE OUTLINE:
The following course outline is subject to change. The instructor reserves the right to substitute relevant materials to the course at any time.

WEEK–DATE	TOPIC	WORK DUE	CHAPTER
1 – Aug. 28	Introduction to course. *Presentation #1:* About Estimating.		Ch. 1, 2
	Lab 1: Introduction (Re-orientation) to Excel.		Ch. 3
2 – Sept. 4	**NO CLASS (Labor Day) – University Closed.**		
3 – Sept. 11	*Presentation #2:* Quantity Takeoffs.		Ch. 4
	Lab 1: (cont'd)		
4 – Sept. 18	*Presentation #3:* Concrete.		Ch. 5
	Lab 2: Concrete Estimation.	Lab Ex. #1	
5 – Sept. 25	*Presentation #4:* Masonry.		Ch. 6
	Lab 3: Masonry Estimation.	Lab Ex. #2	
6 – Oct. 2	*Presentation #5:* Steel and Other Metals.		Ch. 7
	Lab 4: Steel Estimation.	Lab Ex. #3	
7 – Oct. 9	*Presentation #6:* Woods, Plastics, and Composites.		Ch. 8
	Lab 5: Timber Estimation.		
8 – Oct. 16	*Presentation #7:* Thermal and Moisture Protection.		Ch. 9
	Presentation #8: Openings.	Lab Ex. #4	Ch. 10
9 – Oct. 23	**MIDTERM EXAM.**		
	Presentation #9: Finishes/Fire Suppression		Ch. 11, 12
10 – Oct. 30	*Presentation #9:* Plumbing *Presentation #10:* HVAC/Electrical.		Ch. 13 Ch. 14, 15
	Bid Submission: Introduction BlueBeam demo. *Lab 6:* Intro to BlueBeam.	Lab Ex. #5	
11 – Nov. 6	*Presentation #11:* Earthwork. *Presentation #12:* Exterior Improvements and Utilities. *Bid Submission:* (cont'd).		Ch. 16 Ch. 17, 18
12 – Nov. 13	*Presentation #13:* Materials Pricing. *Presentation #14:* Labor Pricing. *Bid Submission:* (cont'd).		Ch. 19 Ch. 20, 21
13 – Nov. 20	*Presentation #15:* Equipment Costs. *Presentation #16:* Crew Pricing/Subcontracts/Markups.	Lab Ex. #6	Ch. 22 Ch. 23, 24, 25
	Bid Submission: (cont'd).		
14 – Nov. 27	*Presentation #17:* Extensions and Errors. *Presentation #18:* Project Buyout, Scheduling, Ethics.		Ch. 26, 27 Ch. 28-31
	Bid Submission: Presentations.		
15 – Dec. 4	Review for Final Exam. *Bid Submission:* Completion.	Bid Sub. (12/4)	
16 – Dec. 11	**FINAL EXAM** (8:00 a.m. – 10:00 a.m.): **Tentative**		