

COURSE SYLLABUS
The University of Texas at Arlington
College of Engineering
Department of Civil and Environmental Engineering
CE 4301
Construction Job Cost Control
(3 Credit Hours)

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Office Hours: Nedderman Hall 109 (After Tuesday Class 6:50- 7:15PM); or by appointment

Course Number, Section Number, and Course Title: CE 4301-001, Construction Job Cost Control

Time and Place of Class Meetings: Tuesday and Thursday, 5:30 – 6:50PM; NH 109

Description of Course Content: Financial aspects and job costing of a construction project. It Includes project management principles, budgets, cost codes, cost-to-complete, and financial reports specific to the management of a construction company and project control. Prerequisite: CE 3310 or IE 3312 with a grade of C or better.

Course Objectives:

- (1) Possess a broad-based civil engineering education to successfully obtain professional positions, and practice civil engineering in a wide range of professional settings including consulting firms, industries, and government agencies.
- (2) Exhibit professional growth throughout their careers by taking on increasing professional responsibilities, and pursue life-long learning by participation in job-related training activities, and/or attending graduate school, and obtaining professional engineering license.

Student Learning Outcomes:

- (1) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- (2) an ability to function on multi-disciplinary teams
- (3) an ability to identify, formulate, and solve engineering problems
- (4) an understanding of professional and ethical responsibility
- (5) an ability to communicate effectively
- (6) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- (7) a recognition of the need for, and an ability to engage in life-long learning
- (8) a knowledge of contemporary issues
- (9) an ability to use the techniques, skills and modern engineering tools necessary for engineering practice

Requirements: SOFTWARE:

Student should have a working knowledge of and access to Microsoft Word®, Microsoft Excel®, Microsoft PowerPoint®.

Required Textbooks and Other Course Materials:

Steven J. Petersen, MBA, PE, Construction Accounting and Financial Management,
2nd Edition, Prentice-Hall
ISBN-13: 978-0-13-501711-1
ISBN-10: 0-13-501711-4

Descriptions of major assignments and examinations with due dates:**ALL students (including Distance Learners) must take ALL Tests in class, in person**

Responses to the tests should be as follows to receive maximum credit:

- 1) Only blue pen is acceptable; should you make an error simply strike through it.
- 2) Include your full name.
- 3) Legible handwriting is a must.

HOMEWORK & IN CLASS QUIZZES AND SPECIAL PROJECTS:

The primary assignments for homework will be reading and working problems assigned by the Instructor. Late homework (i.e., turned in after class has started) will not be graded. Homework should be identified as follows:

- 1) Student Name (Printed)
- 2) Student Instructor Assigned Number
- 3) Chapter assigned (if there are problems from more than one Chapter, list other Chapters also).
- 4) Due Date

Begin each problem with the **Chapter Number** and then the **Problem number**. Problem #7 in Chapter 3 thus is shown as "**3.7**". Place problems in proper order
Do not place additional designations on the HW such as "Homework # 2".

Special Project: To be discussed in class.

ABET Requirement

The ABET definition of engineering design is as follows:

Engineering design is the process of devising a system, component, or process to meet desired needs. It is a decision-making process (often iterative), in which the basic sciences, mathematics, and the engineering sciences are applied to convert resources optimally to meet these stated needs.

Consistent with Bloom's Taxonomy, the verb "design" implies a high Level 5 achievement corresponding to Synthesis.

Requirements:

1. One design term project or major assignment in each design elective, including both analysis and synthesis requiring at least three weeks of effort.
2. The project or assignment must have some iterative components. Students will be encouraged to define the design problem, including scope and design objectives.
3. The course project or assignment should be open-ended, with at least a few alternate solutions.
4. The design project or assignment does not have to involve a complete system. The design of a component or subsystem is acceptable as design experience.
5. The course project or assignment should include any applicable codes and regulations, and also a minimum of two realistic design constraints from the following list: economic, environmental, social, political, ethical, health and safety, constructability, and sustainability.

6. A design summary report must be completed by students at the semester end; it should include a documented analysis of alternatives and consideration of constraints. Oral presentations of the project findings are encouraged.
7. The instructor will perform a documented assessment of the project or assignment, including a desired minimum grade of 70, and completion of a summary form at the end of the semester. This form will include the project or assignment statement, a list of realistic design constraints addressed by the students, and the percentage of students that achieved at least the desired grade of 70 in the instrument. A 75% minimum passing rate will deem to signify that the ABET outcome is being met. This form will be submitted to the ABET Task Team at the completion of the course.

CE Department Outcome "k": An ability to use the techniques, skills and modern engineering tools necessary for engineering practice

PRESENTATION PROJECT to meet ABET Design Requirement:

Undergraduates and Graduate Students will participate on a team to fulfill the ABET requirement. Teams prepare and make presentations to the class and the instructor. Topics to be chosen/assigned during semester.

The teams will be graded on:

Spelling/Grammar/Punctuation

Subject Content & Thoroughness of topic discussion

Verbal/Graphic Communication including presentation organization

Documentation of references

Response to Questions

Tested Explicitly (TE) Component

The Civil Engineering Department ABET procedure includes assessing the achievement of various departmental student learning outcomes (<http://www.uta.edu/ce/accreditation.php>). The procedure includes explicit testing (TE) of the achievement of the departmental student learning outcomes. CE4301 Construction Project Management & Job Costing is designated as one of the TE courses and will have explicit testing of the outcome "g" in the course. This will be achieved through explicit exam problems given to test student knowledge of the outcome, reproduced below:

CE Department Outcome "g": An ability to communicate effectively.

One of the problems in each of the four exams will be designated as a TE problem for outcome "g". The total grade of these four problems is 100. A minimum grade of 70 will be deemed to signify that a student has passed the TE examination. Note that these TE problems will also be counted towards the final grade for this course.

TESTS:

Test # 1	Tuesday	October 11, 2011
Test # 2	Tuesday	November 15, 2011
Final	Tuesday	TBD* & **
	*	(will be re-scheduled by UTA)
		** Students shall confirm date of Final.
		All students must show up to the Final exam. Students travelling must plan accordingly.

TEST CONDITIONS:

Students are expected to seat themselves with at least 1 empty seat between other students.

ITEMS ALLOWED/NOT ALLOWED DURING QUIZZES, TESTS or EXAMS:

No items (backpacks, cell-phones, i-pods, etc.) are allowed on the desk except as noted below:

“Closed Book” means Students may not have anything on their desk area during the test except: Blue pen, calculator.

“Open Book” means Students may not have anything on their desk area during the test except: Blue pen, calculator & textbook (Students’ notes may be used but must be limited to one (1) side of a single sheet of 8.5X11 inch paper).

PRESENTATION:

Students will form teams, prepare reports and make presentations to the class and the instructor. The teams’ reports constitute 10% of the overall grade.

The teams’ presentations constitute 10% of the overall grade and will be graded on:

1%	Spelling/Grammar/Punctuation
3%	Subject Content & Thoroughness of topic discussion
3%	Verbal/Graphic Communication including presentation organization
2%	Documentation of references
1%	Response to Questions

Grading Policy:

Grades will be determined according to the following scale (the grading scale may be lowered at the discretion of the Instructor, but will not be raised):

Grade	% Required*
A	≥ 90.0 – 100
B	= 80.0 – 89.9
C	= 70.0 – 79.9
D	= 60.0 – 69.9
F	< 60.0

* Any rounding which influences the final grade on any assignment, quiz, Test, Final Exam or overall course grade, is at the Instructor’s discretion.

Final Exam & Course Grade

The Final Exam will be comprehensive. Students will be apprised of their Instructor-calculated course grade prior to the Final Exam. The student may choose to accept their Instructor-calculated course grade as their final course grade prior to the Final Exam. Course Grade is determined by the Instructor.

1)	Test #1	20%
2)	Test #2	20%
3)	Final Exam	25%
4)	Homework & Special Projects	10%
5)	Class Attendance & Participation	5%
6)	Research Report and Presentation	20%
TOTAL		100%

Attendance Policy:

Registered students are expected to attend all classes in person (except for Distance Learning students, if any). Class participation and discussions are essential for full professional development. Please arrive and be seated promptly. Instructor reserves the right to reduce points towards final grade to mitigate class disruptions.

Distance Learning students can participate in class discussions though email. Participation of Distance Learning students is highly recommended as this impacts the final grade.

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. Contact the Financial Aid Office for more information.

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

If you: a) need accommodations because of a disability; b) have emergency medical information to share with the Instructor; or 3) if you need special arrangements in case the building must be evacuated, please inform the Instructor immediately. Please see the Instructor (privately – if you choose) **after the 1st class.**

Academic Integrity: It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. According to the UT System Regents' Rule 50101, §2.2, "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts."

Student Support Services Available: The University of Texas at Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. These resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals to resources for any reason, students may contact the Maverick Resource Hotline at 817-272-6107 or visit www.uta.edu/resources for more information.

Electronic Communication Policy: The University of Texas at Arlington has adopted the University "MavMail" address as the sole official means of communication with students. MavMail is used to remind students of important deadlines, advertise events and activities, and permit the University to conduct official transactions exclusively by electronic means. For example, important information concerning registration, financial aid, payment of bills, and graduation are now sent to students through the MavMail system. All students are assigned a MavMail account. **Students are responsible for checking their MavMail regularly.** Information about activating and using MavMail is available at <http://www.uta.edu/oit/email/>. There is no additional charge to students for using this account, and it remains active even after they graduate from UT Arlington.

To obtain your NetID or for logon assistance, visit <https://webapps.uta.edu/oit/selfservice/>. If you are unable to resolve your issue from the Self-Service website, contact the Helpdesk at helpdesk@uta.edu.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless*

specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. Classes are held as scheduled during this week and lectures and presentations may be given.

Librarian to Contact:

Students are expected to consult various Library books on the course subject matter throughout the semester. Students are also encouraged to bring journal articles of their interest, to help them understand how the course is applied in real life situations.

E-Culture Policy:

The University of Texas at Arlington has adopted the University email address as an official means of communication with students. Through the use of email, UT-Arlington is able to provide students with relevant and timely information, designed to facilitate student success. In particular, important information concerning registration, financial aid, payment of bills, and graduation may be sent to students through email.

All students are assigned an email account and information about activating and using it is available at www.uta.edu/email. New students (first semester at UTA) are able to activate their email account 24 hours after registering for courses. There is no additional charge to students for using this account, and it remains active as long as a student is enrolled at UT-Arlington. Students are responsible for checking their email regularly.

Check with Instructor regarding granting Instructor permission to communicate student's information to him/her via e-mail. Instructor will not communicate grades without prior written permission from student.

UTA's E-mail is the prime means for communication. The University and the Instructor have the right to send communications to students via e-mail, and the right to expect the student to receive and read such communications in a timely fashion. The Office of Information Technology (OIT) assigns all students an official UTA e-mail address. This OIT assigned e-mail address is the one to which the University and Instructor will send e-mail communications. Students are expected to check this OIT assigned e-mail address on a frequent and consistent basis to stay current with University and Instructor communications. The University and the Instructor recommends checking e-mail daily recognizing that some e-mails may be time-critical.

Secondary means for communication: A student must give current and correct local and permanent addresses and telephone numbers to the Office of the Registrar (OR) and must notify the OR immediately of any changes. Official correspondence may be mailed, versus e-mailed- to the appropriate address depending on the nature of the correspondence and the academic calendar; if the student has moved and failed to correct the address given to the OR, she or he will not be relieved of responsibility on the grounds that the correspondence was not delivered.

Make-up Exam Policy:

Only extenuating circumstances may be accepted as an excuse for missing a Test or the Final Exam. Health related excuses require: 1) a written medical report; 2) Clearly printed or typed name of the physician; 3) Signature of the physician; and 4) phone number where the physician can be contacted. Whether or not the student is allowed to take a make-up exam is ultimately at the discretion of the Instructor.

Grade Grievance Policy: If a student believes there is a discrepancy regarding his or her grade, the student shall contact the Instructor as soon as is practicable. The Instructor will schedule an appointment with the student to review the issue. If after all attempts between the student and the Instructor, to reconcile the differences regarding the grade, have been exhausted, then the student may seek remedy under the grade grievance policy in the catalog.

For issues involving scholastic dishonesty, see the Academic Dishonesty entry in the UTA undergraduate catalog.

Use of LAPTOP, i-pods or other electronic devices, or E-MAIL correspondence during class: In order to minimize disruption, the use of all electronic devices will not be allowed during class. Students wishing to take notes via a laptop may do so only with prior permission from the Instructor.

CELL PHONE use in classroom during class: In order to minimize distractions, use of cell phones during class in the classroom is **prohibited**. Students must turn off their cell phones during class. If you are anticipating an important call, please inform the Instructor at the beginning of class and change the cell phone to “vibrate” mode. If your call comes through during class, leave the classroom quietly before beginning your conversation and return quietly as soon as the call is completed.

The Instructor reserves the right to adjust Students' grades as a result of class disruption due to cell phone or non-adherence to the above electronic device usage policy.

Class	Date		Topic	Description	Homework Due
	Aug 25			First Day of Classes	
1	25	TH		Introduction	
2	30	T		Chap 1/Chap 2	
3	Sept 1	TH		Chap 2	
	5	M	Labor Day		
4	6	T		Chap 3	
5	8	TH		Chap 3	
	12	W	Census Day		
6	13	T		Chap 4	
7	14	TH		Chap 5	
8	20	T		Chap 6	
9	22	TH	Research Topic due	Chap 6	
10	27	T		Chap 7	
11	29	TH		Chap 8	
12	Oct 4	T		Chap 9	
13	6	TH		Chap 9/Chap 10	
14	11	T	EXAM I	EXAM I	
15	13	TH		Chap 10	
16	18	T		Chap 11	
17	20	TH		Chap 12	
18	25	T		Chap 13	
19	27	TH		Chap 14	
20	Nov 1	T		Chap 15	
21	3	TH		Chap 16	
	4	F	Last Day to Drop		
22	8	T		Chap 16	
23	10	TH		Chap 17	
24	15	T	EXAM II	EXAM II	
25	17	TH		Chap 17	
26	22	T		Chap 18	
	24		Thanksgiving 24-27		
27	29	T		Chap 18	
28	Dec 1	TH	Group Report Due	Presentations	
	Dec 5-9		Review Week		
29	6	T		Handout	
30	8	TH		Final Review	
	9		Last Day of Classes		
	10-15		Final Exam Week		
31	13	T	Final / EXAM III	5:30 pm – 8:00 pm	