



TMGT 336 – Construction Cost Estimating

Fall Semester 2015

COURSE DESCRIPTION

Study of the principles and application of construction estimating including quantity takeoff, pricing of materials, classification of work, labor, overhead, specifications, bid procedures, and project scheduling. Prerequisites: MATH 142 or MATH 176.

PROFESSOR

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Department of Engineering & Technology
College of Science & Engineering

CONTACT INFORMATION

Office: Room 126H, AG/IT Building

Office Hours: 2:30 – 5:00 PM Tuesdays and Thursdays or by appointment

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CLASS MEETINGS INFORMATION

Time: This is a web-based class. Class information will usually be updated every Monday.

Location: N/A

COURSE OBJECTIVES

1. Learn plan reading and quantity takeoff.
2. Learn bid documents, estimating process, and conceptual cost estimating.
3. Learn how to estimate the construction costs of commercial buildings, which may include foundations, concrete structures, steel structures, carpentry, roofing and flashing, masonry, floor systems, painting, and plumbing.

REQUIRED COURSE MATERIALS

Required Textbook:

Peterson, Steven J. 2012. *Construction Estimating Using Excel* (2nd edition). Prentice Hall. ISBN-13: 978-0-13-800719-5.

Optional textbook:

RS Means. 2012. *RS Means Cost Data: Student Edition*. John Wiley & Sons. ISBN: 978-1-118-33590-1.

Students should have an access to the Microsoft Excel in order to finish their class work.

IMPORTANT NOTICE!!! Grading policies and requirements identified in this syllabus are non-negotiable and will be followed in this course with all students held to an identical standard. If you do not agree with any requirement herein, believe any of them to be “unfair” or “unreasonable,” or believe that less should be expected of you than your classmates to earn a comparable grade, you should IMMEDIATELY DROP this course and re-evaluate your dedication to academic integrity and success!

STUDENT CONDUCT/CITIZENSHIP

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).

Students are expected, at all times, to recognize constituted authority, to conform to the ordinary rules of good conduct, to be truthful, to respect the rights of others, to protect private and public property, and to make the best use of their time and effort toward the educational process.

At no time is a student allowed to exchange dialog with, make requests of, or make implications to a member of faculty that could be construed as a request for, or expectation of, preferential or differential treatment among members of a class. A student may not place an instructor in a position in which there is an expectation by the student that (s)he will be evaluated, assessed, or given consideration in a manner inconsistent with that of the entire class. All students within a class will be held to an identical standard of expectation and assessment, within the law.

SCHOLARLY EXPECTATIONS

Work submitted is expected to demonstrate higher-order thinking skills and represent the student's best possible effort on the assignment. A student should NEVER ask an instructor what they made on a particular assignment for the purpose of determining how much effort to put into the next assignment. Any effort, on any activity, that is less than the student's best is insufficient and will most likely be reflected in the grade. If a passing grade is desired in this course, it must be demonstrated by virtue of your performance throughout the course.

ACADEMIC HONESTY POLICY

Texas A&M University-Commerce does not tolerate **plagiarism** and other forms of academic **dishonesty**. Conduct that violates generally accepted standards of academic honesty is defined as academic dishonesty. "Academic dishonesty" includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own), auto-plagiarism (duplicate submission of single work for credit in multiple or repeated classes), cheating on exams or other course assignments, collusion (the unauthorized collaboration with others in preparing course assignments), and abuse (destruction, defacing, or removal) of resource material. All works submitted for credit must be original works created **by the scholar** uniquely for the class. Works submitted are subject to submission to TurnItIn, or other similar services, to verify the absence of plagiarism. Consequences of academic dishonesty may range from reduced credit on the plagiarized assignment to petition for removal from the academic program or institution, depending on the circumstances and extent of the violation; however, in typical instances, an automatic F on the assignment is considered appropriate as a minimum consequence.

Also, be aware that the statute of limitations for penalties for plagiarism does not end upon the completion of the course or even upon graduation. If an instance of plagiarism is found anytime after the completion of the course, the course grade is subject to change accordingly and any awarded degree utilizing the course is subject to revocation.

To avoid plagiarism, an individual must give credit whenever they:

- a) use another individual's idea, opinion, or theory;
- b) use facts, statistics, graphs, and drawings that are not common knowledge;
- c) use quotations of another individual's spoken or written words; or
- d) paraphrase another individual's spoken or written words.

Any works referenced should be properly cited in accordance with APA 6th edition style.

Web resources for additional reference regarding what constitutes plagiarism and how to avoid it include:

<http://www.plagiarism.org/>

<http://www.unc.edu/depts/wcweb/handouts/plagiarism.html>

<http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>

DROPS AND WITHDRAWALS

Drop – Removal of the student from one or more courses while remaining actively enrolled in one or more remaining courses in a given semester. A drop must be initiated by the student, with reason, subject to instructor approval, or it may be initiated by the instructor in the case of excessive absences, at the discretion of the instructor. Drop requests **must** be submitted on or before the drop deadline. A student **may not** be dropped from a single course after the drop deadline is passed. Requests to drop a course are submitted via the student's myLEO account.

Withdraw – Elective removal of the student from **ALL** courses in which (s)he is enrolled in a given semester. A withdrawal request must be initiated by the student submitting the official

[Withdrawal Form](#) to the Office of the Registrar on or before the last day to withdraw. Withdrawals cannot be initiated by instructors and do not require instructor approval.

During the open registration period at the beginning of the semester, students may add or drop courses without specific authorization (prerequisite requirements and permission-only courses excepted). Should the student determine it to be necessary to drop the course, or withdraw from the semester, it is the student's sole responsibility to submit the proper request **PRIOR** to the official deadlines to complete either of these actions. Drop/Withdrawal requests may **NOT** be submitted through your instructor and informing your instructor of your intent to take either action does not constitute your official request to do so. Instructor approval is required to drop the course after the end of the open-enrollment period and prior to the drop deadline. The student **cannot** be dropped after the drop deadline or withdraw after the withdrawal deadline. (This is university procedure, NOT an instructor decision.) The instructor is **required** to submit the actual grade earned by each student remaining on the official roster after the withdrawal deadline, regardless of the level of grade attainment. The student must contact their academic advisor to determine what effect the drop/withdrawal will have on their academic progress prior to initiating either action.

The student is responsible for confirming official university dates/deadlines and meeting any and all necessary deadlines pertaining to drops & withdrawals. In the event of a discrepancy between a date provided in the course and a date on the [official university calendar](#), the date on the official university calendar, or revised date officially announced by the registrar or other authorized university official, will take precedence.

TIME COMMITMENT (16-WEEK TERM)

In a college-level course, it is a reasonable and accepted expectation that a student will spend between three and four hours outside of class for each hour spent in class. This applies to on-line and web-enhanced courses just as it does to a tradition course when determining the total expectation of time that should be spent on a particular course per week, or day in the case of summer or sub-term courses. The activities in this course are based on a 15-week instruction schedule. An understanding of this expectation can help serve as a gauge for you to determine a range of how much time you will need to allow for and devote to each course. The average time commitment range calculation for a three Semester Credit Hour (3 SCH) course, such as this one, is show in the following table:

Average expected time spent on class or class related work.	Minimum expected average time based on 3:1 time ratio.	Maximum expected average time based on 4:1 time ratio.
"In" class per class week	2hr. 30min.	2hr. 30min.
"Outside" class per class week	7hr. 30min.	10hr. 00min.
TOTAL Weekly Expectation	10hr. 00min.	12hr. 30min.
TOTAL Term Expectation	150hr. 00min.	187hr. 30min.

Grade of "X" (Incomplete)

In accordance with the Academic Procedures stated in the TAMU-C Catalog, “students, who because of circumstances beyond their control, are unable to attend classes during finals week or the preceding three weeks will, upon approval of their instructor, receive a mark of ‘X’ (incomplete) in all courses in which they were maintaining passing grades.” The mark of “X” is rarely applicable and will only be considered in strict compliance with University Policy upon submission of complete medical or other relevant documentation. Discovery of an impending failure of a course, although personally disappointing, DOES NOT constitute an emergency in academia and does not meet the criteria for the assignment of an incomplete.

SURVEY/COURSE EVALUATIONS

Your feedback may be requested by Texas A&M University-Commerce during the semester/term regarding your course. *It is important that you take a serious and constructive approach to this activity.* The information gained from you will assist in course evaluation by the university/college/department to insure that effective learning is taking place within the existing course structure. If changes are indicated, this will help with course re-design and/or other revisions that will make the course more relevant for future students and the employers of graduates.

COURSE GRADING

Quizzes and/or homework: 40%

Midterm exam: 30%

Final exam: 30%

GRADING SCALE

90-100%: A

80-89%: B

70-79%: C

60-69%: D

<60%: F

STUDENTS WITH DISABILITIES

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

[Student Disability Resources & Services](#)

NON-DISCRIMINATION ENVIRONMENT

A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

SYLLABUS

This syllabus constitutes the contractual document between faculty and students in the course. A student's continued enrollment in the course following the posting of the final, official syllabus at the beginning of the term signifies the student's understanding of and complete acceptance of this contract and the procedures, requirements, and evaluation criteria contained herein. Any student not accepting this contract is to immediately drop this course. The syllabus identifies credit-earning activities for which you will be responsible to submit in the course. The occurrence of a need to vary from the original syllabus is rare; however, unforeseen circumstances and logistical issues could arise during the course of a semester that necessitates a minor modification in the originally planned activities or procedures. Changes to a syllabus are not made without sufficient justification and assurance that any changes implemented would not impact the students' ability to complete the course. Any variations that may be determined necessary during the course by the instructor will be appropriately announced in the courseware along with relevant information pertaining to the modification and an updated version of the syllabus will be provided.

COURSE SCHEDULE (following schedule is subject to change)

Week No. & Dates (mm/dd – mm/dd)	Weekly Contents	Reading Assignments
1 (8/30-9/5)	<ul style="list-style-type: none"> • Understand course objectives and policies Part I: Introduction to estimating • Art of estimating 	<ul style="list-style-type: none"> • Chapter 1
2 (9/6-9/12)	Labor Day (9/7, Mon.; holiday and no class) <ul style="list-style-type: none"> • Overview of the estimating and bidding process 	<ul style="list-style-type: none"> • Chapter 2
3 (9/13-9/19)	Part II: Quantity takeoff <ul style="list-style-type: none"> • Fundamentals of quantity takeoff • Concrete 	<ul style="list-style-type: none"> • Chapters 4 & 5
4 (9/20-9/26)	<ul style="list-style-type: none"> • Masonry & Metals 	<ul style="list-style-type: none"> • Chapters 6 & 7
5 (9/27-10/3)	<ul style="list-style-type: none"> • Woods & Earthwork 	<ul style="list-style-type: none"> • Chapter 8 & 16
6 (10/4-10/10)	Part III: Putting Costs to the Estimate <ul style="list-style-type: none"> • Material pricing • Labor productivity & hours 	<ul style="list-style-type: none"> • Chapters 19 & 20
7 (10/11-10/17)	<ul style="list-style-type: none"> • Labor rates • Equipment costs 	<ul style="list-style-type: none"> • Chapters 21 & 22
8 (10/18-10/24)	<ul style="list-style-type: none"> • Crew rates • Subcontract pricing 	<ul style="list-style-type: none"> • Chapters 23 & 24
9 (10/25-10/31)	Midterm Exam (take home exam)	
10 (11/1-11/7)	<ul style="list-style-type: none"> • Markups • Pricing extensions 	<ul style="list-style-type: none"> • Chapters 25 & 26
11 (11/8-11/14)	<ul style="list-style-type: none"> • Avoiding errors in estimates Part IV: Finalizing the bid • Submitting the bid 	<ul style="list-style-type: none"> • Chapters 27 & 28
12 (11/15-11/21)	<ul style="list-style-type: none"> • Project buyout • The estimate as the basis of the schedule 	<ul style="list-style-type: none"> • Chapters 29 & 30
13 (11/22-11/28)	<ul style="list-style-type: none"> • Final project preparation 	N/A
14 (11/29-12/5)	<ul style="list-style-type: none"> • Final project preparation (continued) Thanksgiving Holidays : 11/25 (Wed.) after 12:00 noon, 11/26 (Thur.), and 11/27 (Friday) no class	N/A
15 (12/6-12/12)	<ul style="list-style-type: none"> • Final project preparation (continued) 	N/A
16 (12/13-12/19) Finals week	Final exam Will be held on the time scheduled by the University for the final exam	N/A