



### General Information

Course Instructor: Adeeba Abdul Raheem  
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Office: Civil Engineering (A213)  
Office hours: Monday: 11.00am-1.00pm  
Friday: 11.00am-1.00pm  
Bb Collaborate hours: Fridays (6:00-7:00pm)  
Course website: <https://blackboardlearn.utep.edu>

**Course Credits:** 3

### Prerequisites or Co-requisites

Bachelor's Degree in Engineering, Physical Sciences or Business or Instructor Approval

### Course Description

In this course, students will be provided an understanding of how to complete a detailed bid estimate for a construction project and will learn the methods and tools required to analyze, quantify and price the construction costs for any project. Students are required to complete a detailed estimate of a residential building project.

### Course Introduction

This course is a required course in both the Certificate in Construction Management and Master of Science Degree in Construction Management. The primary purpose of this course is to provide an understanding of the estimating and bidding process in construction.

### Course Goals and Learning Outcomes

The goals of this course are to provide the students with a working knowledge of the art and science of estimating and its importance to all participants on a construction/engineered project. Upon completion of the course students will demonstrate their ability to:

LO1: Differentiate between various construction processes and methods for cost estimation

LO2: Design spreadsheet applications for cost estimating

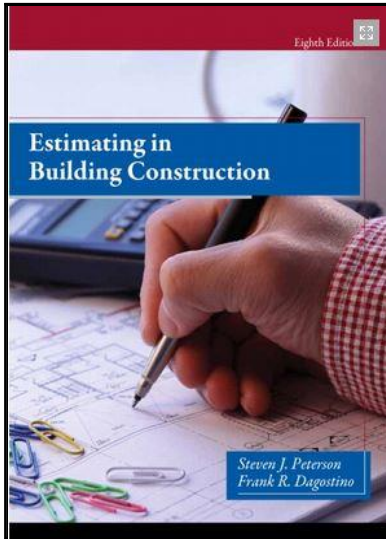
LO3: Interpret construction drawings and prepare detailed quantity take-offs

LO4: Prepare cost estimates from preliminary budgeting through detailed estimates required for bidding and project budgeting

LO5: Develop professional report writing skills

## MATERIAL NEEDED

### Textbook



### Estimating in Building Construction, 8<sup>th</sup> Edition

Steven Peterson  
Frank Dagostino

ISBN-10: 013343110X • ISBN-13: 9780133431100

Buy it:

Amazon

CourseSmart

Pearson

### Additional resources:

- RS Means Construction Cost Data (2015 and 2016 versions) is available in the UTEP Library (reserved section)
- RS Means online version can be downloaded for 30 days from the website: <https://www.rsmeans.com/>. The data available online is limited but still it is a good tool to start with.
- The student license is available for the online version of RS Means Cost data for \$45 if you can't get to the library for the hard bound version. The license is good for one year. Click the link below for the information.  
<https://www.rsmeans.com/products/online/packages/rsmeans-cost-data-student-package-rsmeans-online.aspx>

## GRADING POLICY

Students will be responsible for weekly quizzes, class discussion questions, class discussion/participation, and assignments. Grades will be determined based on the following criteria.

Grade	Required Percentage of Available Points
A (Outstanding)	90 – 100
B (Very Good)	80 – 90
C (Satisfactory)	70 – 80
D (Unsatisfactory)	60 – 70
F (Failure)	less than 60

## Grading Scheme

Module	Course Assignment Categories					
	Quizzes (15%)	Discussion Questions and posts (20%)	Feedback and Evaluation (5%)	Final Exam (25%)	HW Assignments (15%)/ Graduate paper	Final project (20%)
1	30	120			100	
2	30	120			100	
3	30	120			100	
4	30	120			100	
5	30	120			100	
6	30	120			100	
7	30	120	100	100		400
<b>Total</b>	<b>210</b>	<b>840</b>	<b>100</b>	<b>100</b>	<b>600</b>	<b>400</b>

Available points for grading of each assignment category and a week by week schedule of deliverables are as follows:

## DELIVERABLES, PARTICIPATION STANDARDS & EXPECTATIONS

The class material is divided into seven modules. Each module consists of lectures and class assignments. Students will be responsible for all reading material assigned during each week.

- ✚ **Final exam** will consist of short written questions, MCQs, Fill-in-the blanks and some real life situation analysis of construction problems. There will be **NO** makeup quizzes or exam unless there are extenuating circumstances.
- ✚ The students will have to submit a **Final project** by the last week of the course. The specifics will be provided during the second week of the session.
- ✚ **Discussion questions:** Each week students have to provide FIVE comments including their own answers to discussion questions posted on the discussion board online. The comments should add to the discussion by sharing your experience or adding information that is missing. The comments such as great...really good..I enjoyed it...All answers are good....I agree etc. will **NOT** be considered for grading purposes. Proper English and grammar are required in all discussions. In order to count towards participation credit, each post must be substantive. Substantive means they must respond to each point or question posted by the Professor or students, provide additional thought and analysis on the question or point made in the post, and raise a question or comment about the material posted that will contribute towards additional class discussion and inquiry. Slang, texting styles, or street language is unacceptable and will not be graded.

- ✦ **HW Assignments:** Late assignments will **NOT** be accepted. Each student will have ONE opportunity during 7-week period to submit a late assignment within one day after the deadline is passed. This doesn't apply to quizzes and discussion comments. **Quizzes and discussion entries posted after completion of the course week will not be reviewed or graded.**
- ✦ **Quizzes:** Each week students have to complete a quiz worth of 30 points. Quizzes will cover the material discussed during that week and consist of MCQ'S, short questions and fill-in-the blanks etc.
- ✦ Students are encouraged to provide **feedback** during the term to facilitate the positive learning environment. Students can send any suggestions/comments/concerns regarding the course/assignments structure or any related aspect. Instructor strongly believes in helping and listening to students during the semester when it affects them THE MOST. The link for the final course evaluation will be sent to the students during the final week of the semester. After completing the evaluation, students have to send a screenshot to get the associated grade.

## TECHNOLOGY REQUIREMENTS

### Computer Requirements

First, let's make sure your computer has the necessary plug-ins you will need to access all the content in this course. You can click here to access UTEP's test page that will inform you if the computer you are using has the latest software available.

### Software Requirements

You will need the following software on your computer to efficiently work in this course. In some cases your computer may already have some of these programs installed.

- Adobe Acrobat Reader. You can get the program by going to <http://www.adobe.com> and then clicking on the icon on the center of the screen which says "Get Adobe Reader". Follow instructions to install the reader.
- Adobe Flash Player. You can get the player by going to <http://www.adobe.com> and then clicking on "Get Adobe Flash Player". Follow instructions to install the player.
- Apple QuickTime Player. You can get this player by going to <http://www.apple.com>. Once there, click on the "Downloads" tab on the top of the page and then click on QuickTime "Download" and follow instructions.
- Microsoft Office. I recommend buying this if you do not have any word processing software or presentation software. As students, you can generally buy this whole package for about \$25, far less than the store price of approximately \$400.
- Microsoft Silverlight. You can download/update this add-on by going to <http://www.microsoft.com/silverlight/>. This will allow you to view embedded PowerPoint Presentations and PDF files embedded in the course lessons.

## DIVERSITY

As an instructor, I am committed to creating an inclusive environment in which all students are respected and valued. I will not tolerate disrespectful language or behavior on the basis of age, ability, color/ethnicity/race, gender identity/expression, marital/parental status, military/veteran's status, national origin, political affiliation, religious/spiritual beliefs, sex, sexual orientation, socioeconomic status or other visible or non-visible differences.

All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

## IMPORTANT REMINDERS

### Course Schedule Changes

As course instructor, I reserve the right to adjust the course syllabus or change assignments as needed. I will be sure to give you plenty of notice prior to any changes.

### Class Participation

I strongly recommend that you check the course at least three times a week at minimum to keep up. Email messages are sent to your UTEP email address, so you will want to check your UTEP email several times a week.

There will be no incompletes offered in this course. Past experience has shown that if you cannot complete the course during the time allotted, you probably never will.

### **Time Management**

The rule of thumb for time planning for a course is approximately three (3) hours for every credit hour taken. This is a standard figure recommended across the board by American universities. For a 3 credit course, course you should expect to spend:

**3 hours of class time + 9 hours of study and prep time = 12 hours per week.**

### **Being Successful in an Online Class**

Online learning is not a spectator sport. It is everyone's responsibility to participate as fully as they can so everyone can get the most from the experience. Here are some simple rules to follow to ensure your participation and engagement in the learning process:

- Ask questions: If you don't know the answer, someone else will. The discussion board is the area for asking questions related to content OR any problems (related to the class) you are having. Make sure that you have clearly indicated the subject of your message.
- Reach out to others: Offer a fact, article, link, or other item that can help others learn something you can share.
- Be appropriate: The online classroom is not the place for insulting or insensitive comments, attacks, or venting. Inappropriate behavior can be subject to disciplinary action, as well.
- Be diplomatic: When sending messages on emotionally charged topics, I recommend that you write the message and then walk away for at least an hour before re-reading the message and then sending it. Re-reading emotionally charged messages ensures that they are constructive instead of destructive. Think of the person at the other end.
- Stay focused: Stay on topic to increase the efficiency of your learning.

### **Effective Electronic Communications**

It is important to share a word of caution, so we can become wiser about interpersonal distance learning communications. When communicating electronically, many of the feelings or impressions that are transmitted via body language in face-to-face communications are lost. Consequently, interpreting emotions and innuendos is much more difficult. Only what is written, or drawn, carries the message. Often, excitement can be misinterpreted as anger or insult. It is important that we all keep this in mind as we communicate. Words in print may seem harmless, but they could emotionally injure us when working at a distance. Hence, it is vitally important that we are conscious of how we communicate while working at a distance.

- For example, avoid the use of caps in your electronic messages, as wording in caps comes across as shouting.

The standard practice ("Netiquette") for participation in networked discussion requires that all participation be focused on the topic at hand, not become personalized, and be substantive in nature. (Translation: you may certainly disagree with others, but you must do so respectfully; you may express strong beliefs or emotions, but you may not get so carried away that you lose all perspective on the course itself.)

- More information on Netiquette, the etiquette of Internet communication, can be found at [www.albion.com/netiquette](http://www.albion.com/netiquette) .

### **Academic Dishonesty Statement**

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another person's as one's own. And, collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be taken seriously and will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

Academic dishonesty is an assault upon the basic integrity and meaning of a University. Cheating, plagiarism, and collusion in dishonest activities are serious acts which erode the University's educational and research roles and cheapen the learning experience not only for the perpetrators, but also for the entire community. It is expected that UTEP students will understand and subscribe to the ideal of academic integrity and that they will be willing to bear individual responsibility for their work. Materials (written or otherwise) submitted to fulfill academic requirements must represent a student's own efforts. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

### **Notice of Safe Assign**

This course may utilize third party software that has the ability to automatically detect plagiarism on documents submitted for grading.

### **Copyright Notice**

Many of the materials that are posted within this course are protected by copyright law. These materials are only for the use of students enrolled in this course and only for the purpose of this course. They may not be further retained or disseminated.

### **Disabled Student Statement**

In Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990, if a student needs an accommodation then the Office of Disabled Student Services located at UTEP need to be contacted. If you have a condition, which may affect your ability to perform successfully in this course, you are encouraged to discuss this in confidence with the instructor and/or the director of the Disabled Student Services. You may call (915) 747-5148 for general information about the American with Disabilities Act (ADA) and the rights that you have as a UTEP student with a disability. You also can visit the DSSO website at [www.utep.edu/dsso](http://www.utep.edu/dsso) or the DSSO office in Room 108 East Union Building.

Individuals with disabilities have the right to equal access and opportunity. It is the student's responsibility to contact the instructor and The Disabled Student Services Office at The University of Texas at El Paso.

### **Technical Assistance**

The University of Texas at El Paso offers complete technical information and help desk support at: [helpdesk.utep.edu](http://helpdesk.utep.edu).

**The University Writing Center:** The University Writing Center offers free synchronous online one-on-one writing assistance for UTEP Connect students. Graduate and undergraduate consultants work with writers on projects for a wide variety of classes and provide assistance during all parts of the writing process, including: prewriting, drafting, revising, and editing. Online assistance is available by appointment through the UWC's website ([uwc.utep.edu](http://uwc.utep.edu)). Most UWC consultants are bilingual Spanish and English speakers. Consultants will not edit your paper for you, and you are the one ultimately responsible for the work you submit and the grade you earn. Instead, Writing Center consultants will guide you through the writing process and teach you valuable writing skills. Visit the UWC's website to learn more about the services they provide, or make an appointment for an online consultation. Online consultations take place during regular business hours (see website) and must be made at least one day in advance.

**Weekly Schedule\***

	Topics	Readings	Deliverables	Associated Learning Objectives
Week 1	Introduction Contracts, Bonds, & Insurance Project Manual	Text Chapters 1, 2,3 Professor Discussion Topic Lecture 1	Quiz 1 Discussion Questions (DQ1) HW Assignment 1	LO1
Week 2	The Estimate; Computers in Estimating Overhead & Contingencies	Text Chapters 4, 5,6 Professor Discussion Topic Lecture 2	Quiz 2 Discussion Questions (DQ2) HW Assignment 2	LO1, LO2
Week 3	Labor Costs; Equipment Excavation	Text Chapter 7,8,9 Professor Discussion Topic Lecture 3	Quiz 3 Discussion Questions (DQ3) HW Assignment 3	LO3
Week 4	Concrete Masonry	Text Chapter 10,11 Professor Discussion Topic Lecture 4	Quiz 4 Discussion Questions (DQ4) HW Assignment 4	LO3
Week 5	Metals Wood Thermal Protection;	Text Chapter 12,13,14 Professor Discussion Topic Lecture 5	Quiz 5 Discussion Questions (DQ5) HW Assignment 5	LO3
Week6	Doors & Windows, Finishes; Electrical	Text Chapter 15,16,17 Professor Discussion Topic Lecture 6	Quiz 6 Discussion Questions (DQ6) HW Assignment 6	LO3
Week 7	Plumbing; HVAC Profit; Other Estimating Methods	Text Chapter 18, 19,20, 21 Professor Discussion Topic Lecture 7	Discussion Questions (DQ6) HW Assignment 6	LO1, LO3
Final day			Final Exam Final Project	LO1- LO5 LO4-LO5

**\*Course schedule is tentative and subject to modification**