Course Syllabus
CE 4389
Construction Safety

COURSE INSTRUCTOR

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Dr. Adeeba Raheem, specializes in the area of Construction Safety. She has MS degrees in Civil Engineering and Environmental Engineering, as well as a PhD degree in Construction Management from The University of Florida. Dr. Raheem has taught numerous university courses on Construction Safety and has managed safety related research projects funded by CPWR and National Academy of Sciences. She has been involved in developing a safety implementation framework for developing countries. Dr. Raheem has presented his research work at various internationally recognized research platforms.

COURSE INFORMATION

Course Title
Construction Safety

Course Credits: 3-0

Prerequisites or Co-requisites
Bachelor's Degree in Engineering, Physical Sciences or Business

Course Description
Students in this course will be provided an understanding of safe work practices, mandatory training, record keeping and maintenance of records, compliance with OSHA worker safety and environmental safety laws inspection procedures, and penalties for lack of conformance to safety laws. Students will also learn procedures for recognizing hazards, CPR, site safety meetings, and accident investigations. Students are required to complete and present a report on a project consisting of a complete corporate safety plan and a site-specific safety plan containing a hazard analysis of an actual 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 goal of this course is to have students learn that a "culture" of safety needs to be developed within companies for a safety program to be effective. This course is more about managing the safety process than the details involved in the specific construction activities.

**Course Goals**

The goals are to have students learn the cost impacts of accidents and injuries, how to prepare safety and emergency response plans, comply with U.S. Occupational Safety and Health Administration (OSHA) requirements, and how to create and maintain a corporate safety culture.

**Learning Objectives**

LO1: Analyze the high cost of injuries
LO2: Differentiate OSHA requirements for different work activities
LO3: Design safety and emergency response plans
LO4: Design an effective company safety culture manual
LO5: Plan how to comply with OSHA documentation/procedures requirements

**MATERIAL NEEDED**

**Required Materials**

Construction Safety and Health (2nd ed)
David L. Goetsch
Publish by Pearson

**Suggested Materials**

OSHA Standards (CFR 1926) at www.osha.gov/readingroom.html

**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.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Required Percentage of Available Points</th>
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</thead>
<tbody>
<tr>
<td>A (Outstanding)</td>
<td>90 – 100</td>
</tr>
<tr>
<td>B (Very Good)</td>
<td>80 – 90</td>
</tr>
<tr>
<td>C (Satisfactory)</td>
<td>70 – 80</td>
</tr>
<tr>
<td>D (Unsatisfactory)</td>
<td>60 – 70</td>
</tr>
<tr>
<td>F (Failure)</td>
<td>less than 60</td>
</tr>
</tbody>
</table>
Grading Scheme

Percentage weightage of each assignment category to the total grade is as follows:

<table>
<thead>
<tr>
<th>Assignment Categories</th>
<th>Weightage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>10%</td>
</tr>
<tr>
<td>Assignments</td>
<td>25%</td>
</tr>
<tr>
<td>Discussion questions/participation</td>
<td>15%</td>
</tr>
<tr>
<td>Final Project</td>
<td>20%</td>
</tr>
<tr>
<td>Final exam</td>
<td>25%</td>
</tr>
<tr>
<td>Feedback &amp; evaluations</td>
<td>5%</td>
</tr>
</tbody>
</table>

DELIVERABLE STANDARDS

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 questions, MCQs, Fill-in-the-blanks, True/False and some real life situation analysis of construction problems. There will be NO makeup quizzes or exam unless there are extenuating circumstances.
- 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.
- 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.
- 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.

PARTICIPATION STANDARDS & EXPECTATIONS

Participation Standards

Each week students are expected to do all of the required readings, take the quizzes, complete the given assignments, and respond to the professor issued discussion questions as well as to the discussion question responses by fellow students. For the final week only a large assignment is required.

For the Discussion Questions, students must respond to each Discussion Question posted by the Professor on the Discussion Board. Each student must also post six responses to posts made by
other students in the class during each week of the course. This means each student will respond to each Professor Question plus post a total of six posts responding to other student posts for each week of the course. In order to count towards participation credit, each of these posts 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. Proper English and grammar are required in all discussions. Slang, texting styles, or street language is unacceptable and will not be graded.

Assignments will be graded based on the following rubric:

- Proper English and Grammar – 10%
- Accurate and Substantial Thought and Analysis – 60%
- Organized and Coherent – 30%

Discussion posted after completion of the course week will not be reviewed or graded.

**What should you expect from me as the Instructor?**

1. I will provide you clear instructions on class expectations.
2. I will check my e-mail at least three times per week and will answer back to you as soon as possible.
3. I will keep you informed about your graded progress in the class at all times and will make time to discuss your needs.
4. I will leave myself open to suggestions about improvement of the class and class related activities.
5. I will do all I can to ensure your learning and success in this class.
6. If any changes in the course are to be implemented, I will ensure that the class is notified in a timely manner.

**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.

**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 through each lesson.

**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. Remember that our course syllabus and class schedule are living documents and can be changed!

**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, 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 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.

COURSE SCHEDULE*

<table>
<thead>
<tr>
<th>Week*</th>
<th>Topics</th>
<th>Readings</th>
<th>Deliverables</th>
<th>Associated Learning Outcomes</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>• Costs of Accidents, Team Roles</td>
<td>Textbook Chapters^ 1-4</td>
<td>Assignment 1</td>
<td>LO1</td>
</tr>
<tr>
<td></td>
<td>• Causation of Accidents, Ethics</td>
<td>PowerPoint 1</td>
<td>Discussion 1</td>
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<td></td>
<td></td>
<td></td>
<td>Quizzes 1.1,1.2</td>
<td></td>
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<tr>
<td>2</td>
<td>• Worker's Compensation Insurance</td>
<td>Textbook Chapters 5,6</td>
<td>Assignment 2,</td>
<td>LO2</td>
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<td></td>
<td>• OSHA Compliance</td>
<td>PowerPoint 2</td>
<td>Quizzes 2.1,2.2,</td>
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<td></td>
<td></td>
<td></td>
<td>Discussion 2</td>
<td></td>
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<tr>
<td>3</td>
<td>• Safety Plans</td>
<td>Textbook Chapters 12-13</td>
<td>Assignment 3,</td>
<td>LO3, LO5</td>
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<td></td>
<td>• Hazard Analysis</td>
<td>PowerPoint 3</td>
<td>Quizzes 3.1,3.2,</td>
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<td></td>
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<td></td>
<td>Discussion 3</td>
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<tr>
<td></td>
<td>Topic</td>
<td>Textbook Chapters</td>
<td>Assignment</td>
<td>Notes</td>
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<tr>
<td>4</td>
<td>Accident Analysis</td>
<td>14,15</td>
<td>4</td>
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<td></td>
<td>Emergency Response</td>
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<td>5</td>
<td>Preventing Workplace Violence</td>
<td>17,21</td>
<td>5</td>
<td>LO4, LO5</td>
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<td></td>
<td>Promoting Safety</td>
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<tr>
<td>6</td>
<td>General OSHA Requirements</td>
<td>7,8</td>
<td>6</td>
<td>LO5</td>
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<tr>
<td></td>
<td>OSHA Subparts F - O</td>
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<tr>
<td>7</td>
<td>OSHA Subparts P – U</td>
<td>10,11</td>
<td>7</td>
<td>LO1-LO5</td>
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<tr>
<td></td>
<td>OSHA Subparts V - Z</td>
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<td></td>
<td>Final day</td>
<td>Final Exam, Final project reports</td>
<td>LO1-LO5</td>
<td></td>
</tr>
</tbody>
</table>

* Instructor reserves the right to adjust the course schedule as needed
^ Chapter numbers are based on the second edition of the textbook. Please refer to the topics in order to find the correct chapter numbers in the edition that you are using.