Course Syllabus
CE 5324 CRN 13321
Construction Management

General Information

Course Instructor: Dr. Henry Van
Teaching Assistant: David Aguilar Marquez
Email: hvan2@utep.edu
Phone: 915-255-9593
Office: Civil Engineering (A202)
Office hours: By appointment – Send Dr. Van an email of your availability and he will quickly respond with the date and time for your appointment. The appointment can be via Zoom or Teams.

Course website: https://blackboardlearn.utep.edu

Dr. Henry Van has over 40 years’ experience developing and implementing environmental, health and safety (EHS) compliance strategies as an executive for several domestic and multinational oil/gas, electricity, consulting, and manufacturing companies covering 30 countries in Asia, Canada, U.S., Europe, Latin America and the Caribbean. He worked in Mexico, Honduras, El Salvador, Guatemala, Panama, Peru, Ecuador and Brazil in Peace Engineering as faculty member of GA Tech. Has been involved in studying environmental issues along the El Paso/Juarez international border involving Rio Grande water quality studies, and air pollution impacts since 1969.

He managed major multimillion construction projects ranging from new energy facilities to major environmental cleanups in the U.S. and Latin America.
Holds a BS in Environmental Microbiology from the University of Texas at El Paso, a Master’s, and Ph.D. in Environmental Science in Engineering from the University of Oklahoma. He is a Certified Environmental Professional, Registered Environmental Professional and Registered Environmental Assessor. He is trilingual in English, Spanish and Portuguese. Served four years as a member of the City of El Paso and County Board of Health & Environmental Services. Also served as a member of the National Academy of Board-Certified Environmental Professionals certifying environmental professionals working in the energy industry.

Course Credits: 3

Prerequisites or Co-requisites

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

Course Description

This course provides an understanding of construction management, including contracts, estimating, scheduling, subcontracting, cost control, claims, safety, quality, and project closeout.

The course is via online, typically called “Asynchronous” which means the following:

- The material has been uploaded into the course website for you to study.
- You will follow the course schedule that indicates what you should study every week. You must follow this schedule.
- You have a weekly assignment and a quiz to take.
- If you have questions, you primary contact is your TA (Mr. David Aguilar) and he will answer your questions. If Mr. Aguilar is not able to answer your question(s) then he will contact Dr. Van and your he will give the answer to Mr. Aguilar to give to you.
- You may contact Dr. Van if you want. The reason for Mr. Aguilar to be the primary point of contact is to optimize the responding to you questions or comments as quickly as possible. Dr. Van may not be as quickly in responding as Mr. Aguilar because he has to lecture other courses in classrooms, but you are referring to Mr. Aguilar to optimize our service to you.
- In summary, this course is for you to study on your on time and follow the instructions of what you must do. You will not be lectured by Dr. Van. Dr. Van but he will be constantly in contact with Mr. David Aguilar on issues needing his support for you.

- The following diagram shows the steps while taking a “Asynchronous” course online. Please review it because Dr. Van and Mr. Aguilar (TA) will follow this process. If you have questions about this process, please let Mr. Aguilar know.
**Process of Studying Under a “Asynchronous” Course Online**

**Communications:**

As indicated above and in the diagram, you must become familiar with this process because it important for the student to avoid confusion.

Students can make a face to face or Zoom appointment with the TA or Dr. Van to resolve an issue, if needed.

Students are invited to make a face to face or Zoom appointment with Dr. Van for a mentoring session or clarify technical issues, specially while working with their Teams in the semester “Construction Management Plan”.
Course Learning Outcomes

At the end of this course, students will be able to:

LO1: Illustrate the construction project lifecycle
LO2: Identify the roles and importance of various stakeholders in any construction project
LO3: Differentiate between various project delivery methods
LO4: Compare typical contracts used in the construction industry
LO5: Prepare quantity and cost estimate of small residential and commercial projects
LO6: Identify schedule activities and assign reasonable durations to the activities
LO7: Create the control mechanisms and prepare accurate progress reports of the project
LO8: Create a comprehensive project management plan for the remodeling $5,000,000 project for a medical manufacturing plant
MATERIAL NEEDED

1. Textbook

   Construction Project Management: A Complete Introduction
   Author: Alison Dykstra

2. Computer Activities

   The computer activities are primarily assignments using MS Word/Excel that is available for engineering students through the Microsoft DreamSpark Program (http://etc.utep.edu/software/msdn.htm). For any kind of technical help, please contact the Engineering Technology Center in the Engineering Bldg., Room E351 (Tel: (915) 747-5223; Email: etchelpdesk@utep.edu)

GRADING POLICY

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

<table>
<thead>
<tr>
<th>Grade</th>
<th>Required Percentage of Available Points</th>
</tr>
</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 weight of each assignment category to the total grade is as follows:

<table>
<thead>
<tr>
<th>Categories</th>
<th>Quizzes</th>
<th>Assignments</th>
<th>Team Project</th>
<th>Final Exam</th>
<th>Discussion Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weightage</td>
<td>25%</td>
<td>15%</td>
<td>30%</td>
<td>20%</td>
<td>10%</td>
</tr>
</tbody>
</table>

**DELIVERABLE 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.

- The 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.
- All the students (student groups will be formed by the instructor) have to submit a final project by the last week assigned by the instructor. The specifics of the submission will be provided during the second week of the session.
- 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 a 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 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.**
  - **Very important – Students are required to work in Teams in their semester project. Team Leaders will be required to report team members that do not work and cooperate with their assignments as early in the course as possible. Team Leaders are required to tell their team members to communicate well because this is part of their success.**
TECHNOLOGY 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.

- **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 make sure to give you plenty of notice prior to any changes.
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 accommodations, 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.

Technical Assistance

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

**COURSE SCHEDULE***

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Readings</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>• Construction project and players • • Project stages</td>
<td>Text Chapters 3, 4 PowerPoint Lesson 1</td>
<td>Assignment 1(A1) Quiz 1 Discussion 1</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>• Project delivery • Bidding and Awarding the Job • Finding Qualified Contractors</td>
<td>Text Chapters 6,8,9 PowerPoint Lesson 2</td>
<td>Assignment 2(A2) Quiz 2 Discussion 2</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>• Construction Contracts • Estimating</td>
<td>Text Chapters 10, 11, 13 PowerPoint Lesson 3</td>
<td>Assignment 3(A3) Quiz 3 Discussion 3</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>• Pre-construction &amp; Mobilization • Scheduling • Managing the Schedule</td>
<td>Text Chapters 17, 19, 20 PowerPoint Lesson 4</td>
<td>Assignment 4(A4) Quiz 4 Discussion 4</td>
</tr>
<tr>
<td><strong>5</strong></td>
<td>• Construction Phase. • Construction Claims and Disputes</td>
<td>Text Chapters 18,24 PowerPoint Lesson 5</td>
<td>Assignment 5(A5) Quiz 5 Discussion 5</td>
</tr>
<tr>
<td><strong>6</strong></td>
<td>• Construction Safety • Changes in the Work – “Change Orders”</td>
<td>Text Chapter 22 PowerPoint Lesson 6</td>
<td>Assignment 6(A6) Quiz 6 Discussion 6</td>
</tr>
<tr>
<td><strong>7</strong></td>
<td>• Construction Payments • Close-out</td>
<td>Text chapters 23,25</td>
<td>Assignment 7(A7) Discussion 7 Final Project</td>
</tr>
<tr>
<td>Week</td>
<td>Topics</td>
<td>Readings</td>
<td>Deliverables</td>
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<td>Lesson 7</td>
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<tr>
<td>Final Day</td>
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<td></td>
<td>Final Exam</td>
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</tbody>
</table>

*Instructor reserves the right to adjust the course schedule as needed.*