

COURSE SYLLABUS
The University of Texas at Arlington
College of Engineering
Department of Civil Engineering
CE 5300 – Best Construction Practices (3 Credit Hours)
Fall 2014

Name of Instructor: Dr. Mohammad Najafi, P.E., F. ASCE

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Office Hours: Tuesday, Thursday and Friday: 3:00 PM – 5:00 PM – Additional Office Hours by Appointment.

Teaching Assistant: Ameya Paradkar

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Course Number, Section Number, and Course Title:

CE 5300 - Topics in Civil Engineering:

89828 001-LEC	Friday 11:00AM - 3:00PM	PH 307	09/05/2014 - 12/05/2014
89829 002-LEC		OFF WEB	09/05/2014 - 12/05/2014
89830 003-LEC		OFF WEB	09/05/2014 - 12/05/2014

Time and Place of Class Meetings:

Friday, 11:00 AM – 3:00 PM, Preston Hall (PH) 307

Description of Course Content: This course will explain the best practices developed by the Construction Industry Institute (CII), and how they are implemented by the leading owners and contractors in the construction industry. Guest lecturers include CII directors and visiting industry subject matter experts.

Course Objectives: This course will discuss the current issues in the construction industry, and introduce the best practices defined and developed by CII research over the last 29 years. To address these subjects, the course covers a substantial amount of material. Students are expected to study the course materials ahead of the class. Online educational modules will also be arranged via CII's Website to reinforce learning.

Student Learning Outcomes: Upon completion of the course, the student will have:

- Understand the critical issues in the construction industry;
- Gain the knowledge of CII best practices;
- Apply the CII best practices to improve project performance;
- An understanding of professional and ethical responsibility; and
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Requirements: Graduate student standing required unless otherwise agreed upon by instructor.

Course Text: No textbooks will be used. Preparatory readings (i.e., primarily research summaries and reports) will be available through the CII's website.

Reference Books: CII Publications

Descriptions of major assignments and examinations with due dates: There will be two exams (one close to midterm and one final which will be non-comprehensive), one project, and several homework and lab assignments. See Course Outline for specific dates.

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 -100
B	80-89
C	70-79
D	60-69
F	Less than 60

Students will be required to accumulate points from the following:

Pop-Quiz (6)	10%
Class Attendance & Participation	10% (-2% per day absent (unexcused))
On-line Quizzes (CII Online Education Modules)	40%
Term Paper	20%
Final Exam	20%
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Total	100%

Quizzes and Term Paper: There will be NO midterm exam. Students will be given access to CII online education modules (see the course Webpage for more details). There are a number of tests, including pre-test and post-tests for each CII online education module. A test score will be provided after completing each education module (Pass: ≥ 85 , or Fail < 85). Students must complete the online education modules no later than 7 days after the session by submitting the test score to the instructor via email. Late completions with a maximum score of 85% can be turned in up to one week late, otherwise it is considered unacceptable. Note that each education module could be taken multiple times.

A total of six (6) pop quizzes may be given during the semester regarding pre-reading materials.

There will be ONE term paper required. Students will submit a term paper on implementing two of the CII Best Practices discussed in this course. More information concerning the term paper will be given at a later date.

Class Participation and Attendance: It is important that you become familiar with the course materials as the course evolves. Your ability to answer questions and discuss the material will be a part of the overall participation evaluation. Therefore, you should review class materials ahead of time. Regular attendance is expected. Each student is responsible for all materials and administrative instructions given during the lecture period.

Personal Problems: If you have illness or personal problems that will affect your performance during the course of the semester, please let me know as soon as possible. "After the fact" notification is unacceptable unless there are extreme circumstances.

Make-up Exam Policy: All students must take the exam. Only extenuating circumstances will be accepted as excuse for missing the exam. Health related excuses require medical reports and the signature of a physician that provided treatment.

Grade Grievance Policy: Refer to UTA Catalog for more information.

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. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Attendance Policy: At the University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating his or her students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I have established the following attendance policy: students are expected to attend all classes. For total professional development, class participation and oral discussions will be encouraged. Everyone is asked to arrive and be seated promptly for duration of class to minimize the disruption to others.

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. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/aao/fao/>).

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.

Title IX: The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit www.uta.edu/titleIX.

Academic Integrity: Students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Student Support Services Available: UT 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. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

Engineering Librarian:

Sylvia George-Williams, Engineering Librarian

UT Arlington Science & Engineering Library

Mailing address: B03B Nedderman Hall, Arlington, TX 76019. Phone: (817) 272 7519, Email: sylvia@uta.edu

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

Laptop use in the classroom: In order to minimize distraction, the use of laptop and/or any other digital device (except standard scientific calculators) in the classroom is NOT allowed.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which will be shown in class. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

Emergency Phone Numbers: In case of an on-campus emergency, call the UT Arlington Police Department at 817-272-3003 (non-campus phone), 2-3003 (campus phone). You may also dial 911.

Religious Holidays: Students must notify the instructor of their pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

**CE 5300 – Topics in Civil Engineering
Best Construction Practices
TENTATIVE COURSE SCHEDULE¹**

	Topic	Date	Instructors	Organization	Host
1	Zero Accident Techniques	09/05/14	Billy Gibbons	JMJ	UT Austin
2	Front End Planning and Alignment	09/12/14	John Fish	Ford, Bacon and Davis	UT Austin
3	Constructability	09/19/14	Doug Omichinski	Bechtel	UT Austin
4	Planning for Startup	09/26/14	Edward McDaniel Jonah Collins	CH2M Hill Southern Company	UT Austin UT Austin
5	Materials Management	10/03/14	Glenn Gundy	Fluor	UT Austin
6	Quality Management (2 hrs)	10/10/14	Tammy Lynam	Burns & McDonnell	Pittsburgh State
7	Lessons Learned (2 hrs)	10/17/14	Abdirahman M. Abdi	Saudi Aramco	Saudi Aramco
8	Change Management	10/24/14	Mark Fox	ConocoPhillips	UT Austin
9	Risk Assessment	10/31/14	Steve Cabano	Pathfinder	UT Austin
10	Project Controls (PHI)	11/07/14	Drew Edleman	URS	URS Cleveland
11	Benchmarking & Metrics	11/14/14	James Blaschke Kirk Morrow	ConocoPhillips S&B	UT Austin UT Austin
12	Implementation of CII Research	11/21/14	Cindy King	CII	UT Austin
	FINAL EXAM:	Wednesday, Dec 10, 2014, 11:00 AM – 1:30 PM			

- Homepage: <https://www.construction-institute.org/bpp/index.cfm?nav=main>
- Readings, slides and surveys: <https://www.construction-institute.org/bpp/presentations.cfm>.
- Online courses (Educational modules) <https://www.construction-institute.org/bpp/online.cfm>.
- Before the Website is launched, you can access the reading material at:
<https://utexas.box.com/s/hypr2dku8s5shr432g27> (there will be a few updates as industry instructors send me new material).
- We have a link to the student background survey, which we expect student to submit during the first week of the course. Please make sure to remind student to respond to the survey:
<https://survey.construction-institute.org//TakeSurvey.aspx?SurveyID=n4308m7>
- There will be a one-hour session on Friday, August 29th, and will be posted so students from all universities can learn about course logistics prior to the first session.

¹As the instructor for this course, I reserve the right to adjust course schedule in any way that serves the educational needs of the students enrolled in this course. – Dr. Mohammad Najafi.