

Instructor: Michael Fairchild

SPRING 2019

COURSE SYLLABUS

The University of Texas at Arlington

College of Engineering

Department of Civil Engineering

**CE 5378 & CM 5378 – Construction Contracts & Specifications
(3 Credit Hours)**

Name of Instructor: Michael Fairchild, AIA, NCARB, LEED® AP

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Office Hours: Monday-Wednesday-Friday 10:00 AM until 10:50 AM

Tuesday-Thursday 9:00 AM until 12:00 PM;

Tuesday-Thursday 1:00 PM until 1:50 PM

Course Number, Section Number, and Course Title:

CE 5378 & CM 5378 – Construction Contracts, Specifications & Materials

- Section 001, WH 402
- Section 101, Off Web

Time and Place of Class Meetings: Monday & Wednesday, 1:00 PM to 2:20 PM

Teaching Assistant (TA):

Description of Course Content: Introduction to legal and contractual aspects of construction, types of construction contracts, product delivery methods, contractual relationships among different parties, construction details for various structural systems and different types of specifications and the CSI Master Format.

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

General

- an ability to analyze and interpret data
- an ability to function on multi-disciplinary teams
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context
- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use techniques, skills and modern engineering tools necessary for engineering practice

Specific

- an ability to understand the global nature of the construction contracts, specifications, construction documents and construction materials.
- comprehend the general aspects of the conditions of a contract for construction and their effect on the construction process.
- recognize the purpose, structure and interfacing of specifications with the contract documents, and their importance to the construction of a project.
- know how construction documents are organized and how to interpret construction drawings.
- develop skills in reviewing wood, masonry, concrete and steel construction details.
- analyze a construction and professional negligence law suit case study, develop opinions and conclusions based on the contract documents and present findings.
- review a sample project manual and analyze the structure of construction specifications.

Requirements: Consent of Professor Dr. Najafi or instructor.

Recommended Textbooks and Other Course Materials: Project Delivery Practice Guide, published by The Construction Specifications Institute, © 2011, available at the Bookstore. "Standard General Conditions of the

Construction Contract (2007)” and “Standard Form of Agreement Between Owner & Engineer for Professional Services (2008)”, published by the Engineers Joint Contract Documents Committee (EJCDC), on Blackboard.

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:

Homework	15%
Design Presentation	10%
Specifications Project	10%
Hourly Exams (2)	40%
<u>Final Exam (Comprehensive)</u>	<u>25%</u>
Total	100%

Make-up Exam Policy: All students must take the exams. 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.

Attendance: At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator in student success. Each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor for this course, I will take attendance for each class. However, while UT Arlington does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the University have a mechanism in place to mark when Federal Student Aid recipients “begin attendance in a course.” UT Arlington instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Blackboard. This date is reported to the Department of Education for federal financial aid recipients.

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/>).

Disability Accommodations: UT 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)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. 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 disability. Students are responsible for providing the instructor with official notification in the form of **a letter certified** by the Office for Students with Disabilities (OSD). Only those students who have officially documented a need for an

accommodation will have their request honored. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

Non-Discrimination Policy: *The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos.*

Title IX Policy: The University of Texas at Arlington ("University") is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. *For information regarding Title IX, visit www.uta.edu/titleIX or contact Ms. Michelle Willbanks, Title IX Coordinator at (817) 272-4585 or titleix@uta.edu.*

Academic Integrity: Students enrolled all UT Arlington courses 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 in their courses by 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. Additional information is available at <https://www.uta.edu/conduct/>. Faculty are encouraged to discuss plagiarism and share the following library tutorials <http://libguides.uta.edu/copyright/plagiarism> and <http://library.uta.edu/plagiarism/>. Additional information is available at <https://www.uta.edu/conduct/>.

Student Support Services: 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 <http://www.uta.edu/universitycollege/resources/index.php>.

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>.

Campus Carry: Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>

Student Feedback Survey: At the end of each term, students enrolled in face-to-face and online classes categorized as “lecture,” “seminar,” or “laboratory” are 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 via the SFS database is aggregated with that of other students enrolled in the course. Students’ anonymity will be protected to the extent that the law allows. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law and aggregate results are posted online. Data from SFS is also used for faculty and program evaluations. For more information, visit <http://www.uta.edu/sfs>.

Final Review Week: for semester-long courses, 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.

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: (Applies to face-to-face courses only.) Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, look for illuminated EXIT signs. 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 individuals with disabilities.

CE/CM 5378 – Construction Contracts, Specifications & Administration

TENTATIVE COURSE OUTLINE

Day	Date	Topic	Reference	Assignments Due
Week 1				
Monday	Jan. 14	Overview of Course & Objectives		
Wednesday	Jan. 16	Overview of the Development Process, Contract Documents & Delivery Methods	Class Handout, <u>Project Delivery Practice Guide</u> (PDPG), CSI – Chapters 1 & 2	Review Class Project Assignment, List Typical Project Stages
Week 2				
Monday	Jan. 21	Contracts – EJCDC, AIA, Consensus Docs + Misc. Docs & Construction Phases	PDPG, CSI – Chapters 6 &	List Categories of Contract Documents, Delivery Methods, Construction Phases
Wednesday	Jan. 23	EJCDC C-700, General Conditions of the Contract	EJCDC C-700 on Blackboard + PDPG, CSI – Chapter 5	Read EJCDC General Conditions & Define Selected Terms (see handout)
Week 3				

Monday	Jan. 28	EJCDC E-500, Owner/Engineer Agreement	EJCDC E-500 on Blackboard	Read EJCDC Owner/Engineer Agreement, Define Terms (see handout)
Wednesday	Jan. 30	EJCDC C-520, Owner/Contractor Agreement	EJCDC C-520 on Blackboard	Read EJCDC Owner-Contractor Agreement & Define Selected Terms (see handout)
Week 4				
Monday	Feb. 4	AIA A201, General Conditions of Contract	AIA A201 Document on Blackboard	Review AIA A201, Outline Major Articles
Wednesday	Feb. 6	AIA A101 Owner/GC & B101 Owner/Arch. Agreements	AIA A101 & B101 Documents on Blackboard	Review AIA A101 & B101 Outline Major Articles
Week 5				
Monday	Feb. 11	Consensus DOCS – 200, Owner/GC Agreement	Consensus DOCS-200 On Blackboard	Review DOCS - 200, Outline Major Articles
Wednesday	Feb. 13	Guest Speaker - Contract Attorney Tony Jach, Esq	PDPG, CSI – Chapter 5	Develop questions for Guest Speaker
Week 6				
Monday	Feb. 18	Guest Speaker – Contract Attorney Mitch Milby	Review Past Lectures	Prepare Questions for Design Project
Wednesday	Feb. 20	Review for Exam / Discuss Design Project		
Week 7				
Monday	Feb. 25	CONTRACTS EXAM #1		
Wednesday	Feb. 27	The Project Manual & CSI Format	Example Project Manual on Blackboard	Review Project Manual, Describe Div. 1 “Front End”, List Spec. Sections
Week 8				
Monday	Mar. 4	Anatomy of Specifications	PDPG, CSI - Chapters 4 & 5	Define The Three Parts of Each Spec
Wednesday	Mar. 6	Construction Drawings & Organization	PDPG, CSI – Chapter 11	List the different types of construction drawings
Week 9				
Monday	Mar. 11	SPRING BREAK		
Wednesday	Mar. 13	SPRING BREAK		
Week 10				
Monday	Mar. 18	Architectural Drawings		List the Different Categories of Drawings
Wednesday	Mar 20	Structural Drawings + Building MEP Systems	(Spec. Project Due)	List the Different Types of Drawings in the MEP Set
Week 11				
Monday	Mar. 25	Mechanical, Electrical & Plumbing Drawings	Review Drawings on Blackboard	List the Different Building Systems & Describe

Wednesday	Mar. 27	Occupational Safety & Health Administration Guidelines	Research OSHA on line	List Major Categories of Concern for Construction
Week 12				
Monday	Apr. 1	Structural Engineer's Role in Construction Administration	Design Project Draft Due	
Wednesday	Apr. 3	Review Design Project		
Week 13				
Monday	Apr. 8	Review for Exam		
Wednesday	Apr. 10	SPECIFICATIONS EXAM #2		
Week 14				
Monday	Apr. 15	International Building Code 2012 + Class Project	Research IBC on Web	List Chapters
Wednesday	Apr. 17	USGBC LEED 4.0, 2013 – New Construction	Research LEED On Web + PDPG, CSI – Chapter 4	List LEED Categories of Credits
Week 15				
Monday	Apr. 22	Student Presentations		
Wednesday	Apr. 24	Student Presentations		
Week 16				
Monday	Apr. 29	Student Presentations		
Wednesday	May 1	FINAL EXAM REVIEW		
Week 17				
May 6 at 11:00 AM – 1:30 PM		FINAL EXAM (Comprehensive) – verify date & time		

As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. – Michael W. Fairchild

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.

NOTICE TO ON-LINE STUDENTS:

1. Students taking this course on-line must make arrangements for taking exams via an educational institution and administered by a professional proctor, OR, on-line students may take the exams with the in-class students.
2. If an on-line student is taking an in-class course that has conflicting Final Exam times, the student must make arrangements to take both exams by rescheduling one of the exams.