

The University of Texas at Tyler
Department of Construction Management

CMGT 4195.002
CMGT 4195 CONSTRUCTION MANAGEMENT CAPSTONE I
Habitat and Honor Society Capstone

Course Syllabus (Fall 2022)

Date: August 15, 2022. This version supersedes all earlier versions.

Time & Venue	CMGT 4195.002 CONSTRUCTION MANAGEMENT CAPSTONE I Class Meets: Tuesday's 11:00 AM – 1:45 PM Lecture Room: RBN 3039 and Lab: (as instructed)
Instructor	Professor Contact info: Instructor: Dr. Gilbert Abel Office #: 903-565-5890 Office #: RBS 1036 Office Hours: Mon/Wed 10:30 – 2:00 PM, Tuesday 2:00 – 5:00 Email: gabel@uttyler.edu
Teaching Assistant	None
Course Website	See UT Tyler's Canvas website. Canvas will be used to manage the course material for the semester. There you will find announcements, homework assignments, solutions, handouts, lesson videos, and other material pertaining to the class. Please check there regularly.
Course Objective	Welcome to CMGT 4195 Construction Management Capstone I (Honors Capstone) Mission: Prepare to manage a project to its completion on time and within budget. The objective of this class is lean how to internally monitor, observe, and organize and construction project. In preparation, you will complete the preconstruction requirements necessary to begin your project when you return to class in the Spring. This semester you can expect learn how to manage a real project utilizing construction management software (Procore) this semester. The instructor will be guide you through the entire process, but the intention of this course is for the student to have full control of the project.

Topics covered include but not limited to Revit modeling, project planning, and selection of project for the year. Emphasis is placed on learning the techniques of Revit Modeling and preparation for the capstone presentation held in the spring.

Prerequisite: Senior Standing and Chair Approval.

Other Topics that will be covered include:

Drawings / Specifications

Existing Photos

Budget / Prime Contract

Schedule

Daily Logs

Directory

Meetings / Set Up / Agenda

RFI's

Submittals

Inspections / Checklist

Punch list

Commissioning / Quality Assurance / Testing / Checklist

Work Breakdown Structure

Estimating / Takeoff

BIM Modeling

Organizational Breakdown Schedule

Procore Software Certifications

Cost Codes

A. What does it take to be successful in the senior capstone courses?

Senior Capstone I & II utilizes information from all previous courses to give students an understanding of the Construction Management profession. The students are instructed to become organized, diligent project managers for a real jobsite. Students are provided a full set of working drawings, project manual specifications, and subcontractor bids from a contractor. The project was budgeted and scheduled prior to the course. Beginning Spring 2023, the project is scheduled to begin construction.

Throughout the semester, the students meet with other professionals within the industry to help with their capstone project. You may be in contact with subcontractors, planning committee representatives, and even the owner's Rep.

You will have client by weekly client meetings to keep all updated with the course of a successful project as you would in the real world. You will

be prepared to present a presentation at each meeting and/or go over meeting agendas /RFI's. Getting solutions to issues is the key to these meetings.

The project is scheduled to be completed on or before **May 1, 2023**.

Following the project and at the end of this course, you are required to present a presentation for a Final Grade.

Attendance:

I will take attendance in class – please ensure information is circulated and turned back in to the instructor by the end of class. You are expected to attend all class meetings.

Lectures:

In class demonstrations, and class discussions will contain vital information needed to do well in the course. It is your responsibility to sign the attendance roster each class period. Capstone is setup similar to a workplace environment. You will be provided a task and your goal is to complete the assigned task. Attending class is a reflection upon yourself, but your team members will need each other to make it through Capstone I and II. Don't leave them disappointed in your efforts.

Extra Help:

Class preparation is your individual responsibility. If I am not in the computer lab with you, I will be in my office. I will check on students throughout the class period to see how you are progressing or if you need help. If you need EXTRA HELP – PLEASE DO NOT WAIT TILL THE LAST MINUTE TO GET HELP!!

Course Materials:

I will post all course materials on Canvas. Canvas enrollment should be automatic with course registration but ensure that you can access the class Canvas page.

All assignments will be posted on Canvas and provided in class. It is your responsibility to check the site for changes and addendums.

Turn in Homework:

Homework will be turned in at the beginning of class on due dates. All work should be done professionally. The majority of assignments will be turned in on the Procore Software, which stamps it with a time and date.

Canvas Information:

	I may also on occasion email you homework tips or points of clarification that are made aware to me outside of class. All email correspondence will take place through the Canvas system, and therefore using your Patriot email accounts; so, check your Patriot email account often. Professionals check their work emails daily (or more often).												
Course Outcomes	In this course, you will learn to: <p style="text-align: center;">CMGT 4195.002 Course Objectives:</p> <ol style="list-style-type: none"> 1. Explain the role of computer models in the construction management field. 2. Develop students' ability to use Revit Models. 3. Prepare students for Capstone 2 by helping them select and model a project. 4. Monitor a construction budget. 5. Monitor and periodically adjust a working schedule. 6. Maintain daily logs. 7. Track RFI, Submittals, meeting issues and agendas. 8. Provide a punch list, commission checklist, and testing schedule for this project. 9. Utilize cost codes while managing a project. 10. Become certified to use Procore software and understand how to manage a project using it. 												
Prerequisite	1. Prerequisite: Senior Standing and Chair Approval.												
Required Text	Course Book: <ol style="list-style-type: none"> 1. None 												
Grading	<p>Exams and Grading: Course Points Minimum Grade Scale</p> <p>a. Grade Breakout and Cutoffs:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2"><u>Course Points</u></td> </tr> <tr> <td>Weekly Assignments/ 28 Assignments Due</td> <td style="text-align: right;">800 (80%)</td> </tr> <tr> <td>Final Presentation</td> <td style="text-align: right;">0 (0%)</td> </tr> <tr> <td>Professional Practice Grade</td> <td style="text-align: right;"><u>100 (10%)</u></td> </tr> <tr> <td>Student Club Association</td> <td style="text-align: right;"><u>100 (10%)</u></td> </tr> <tr> <td> Total Points</td> <td style="text-align: right;"> 1,000 (100%)</td> </tr> </table> <p>University Guidelines for Grading will be used to determine your letter grade.</p> <p>Grade Breakdown: A = 90 – 100 B = 80 – 89 C = 70 – 79</p>	<u>Course Points</u>		Weekly Assignments/ 28 Assignments Due	800 (80%)	Final Presentation	0 (0%)	Professional Practice Grade	<u>100 (10%)</u>	Student Club Association	<u>100 (10%)</u>	 Total Points	 1,000 (100%)
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	<p>D = 60 – 69 F = 59 or below</p> <p>Note: You may fail this course, if you earn less than 65% on all Exams or if you fail to earn at least 50% on the Final exam, regardless of your course grade.</p>
Professional Practice	<p>Professional Practice Grade - During this semester, a portion of your grade in this course (approximately 10%) will be derived from what I consider professional practice expectations.</p> <p>10% or 100 points will be allocated to your attendance. (days attended / total possible of in class days). Attendance will be taken on canvas so you can see it and monitor it.</p> <p>10% or 100 points will be allocated to your Participation in one of many UT Tyler Student associations. You must show proof of this affiliation by uploading this proof to the Professional Practice canvas assignment page.</p> <p>Proof includes, but not limited to proof of attendance in a meeting, proof of participation. This can be a club, association, or a temporary fundraiser to support the students in the department. IE: CMSA, ASCE, Honors Society, Student Leadership Association, ITE, IEEE, ASME, SAE, etc.</p>
Exams	<p>There are 0 scheduled for this course.</p> <p>The exams are TENTATIVELY scheduled for:</p> <ul style="list-style-type: none"> • Exam 1: none • Exam 2: none • Exam 3: none • Final Exam: none <p>Exams dates may be moved up or pushed back depending on the progress of the lectures. You can use a calculator and instructor-approved reference material. Solutions to exams will NOT be posted. No make-up exams will be given except for medical or other similar hardships where advanced arrangements are made with the instructor; or in case of non-selective medical emergencies with appropriate physician’s note or documentation. Other than circumstances described above, failure to take the exam at the scheduled time will constitute a grade of zero on the exam.</p>
General Exam Rules & Cheat Sheet	<p>Exams will be administered online using Canvas. You will be allotted a predetermined amount of time to take the exam.</p>

	The Exam is not group work and if any student is caught cheating, both will be given an “F” for the exam. Again, the exams are self-examinations of the strength and knowledge of the individual student at a given point in the semester.
Calculators	A basic calculator is required for this course.
Field Trip	There are no field trips scheduled for this course.
Final Project	None
Topical Presentation	At the end of the 14-15 week, each student will present a slide show as a team in front of the class. Expect to conduct multiple presentations in front of the Habitat Team.
Homework / Review Questions	Weekly Assignments are assigned and all have a grading rubric to follow. Homework will be uploaded to Canvas as a PDF, EXCEL, or Word doc.
Late Homework/ Assignment Policy	Late Submissions. It is a basic principle of professionalism that “Professionals are not late.” A “COORDINATED LATE” submission occurs when you will miss the suspense for a graded homework assignment and you contact me in advance. Notification immediately before the submission will not suffice. Point cuts up to the amounts below may be assessed for a “COORDINATED LATE” submission: 1. 0-24 hours late a deduction of 25% of the earned grade 2. 24-48 hours late a deduction of 50% of the earned grade 3. More than 48 hours late No credit. Assignments must still be submitted.
Final Day to Withdraw	The final day to withdraw from the course without penalty is November 4th.
Census Dates	The university requires that instructors report the attendance to the Registrar’s Office at various points in the semester. Therefore, on September 2nd. I will report the attendance for the class.

<p>UT Tyler Honor Code</p>	<p>Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.</p>
<p>Students' Rights and Responsibilities</p>	<p>To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: http://www.uttyler.edu/wellness/rightsresponsibilities.php</p>
<p>Campus Carry</p>	<p>We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at http://www.uttyler.edu/about/campus-carry/index.php</p>
<p>UT Tyler: A Tobacco-Free University</p>	<p>All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.</p> <p>Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.</p> <p>There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.</p>
<p>Grade Replacement / Forgiveness and Census Date Policies</p>	<p>Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at http://www.uttyler.edu/registrar. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.</p> <p>Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.</p> <p>The Census Date is the deadline for many forms and enrollment actions of which students need to be aware. These include:</p> <ul style="list-style-type: none"> • Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.

	<ul style="list-style-type: none"> • Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date) • Schedule adjustments (section changes, adding a new class, dropping without a “W” grade) • Being reinstated or re-enrolled in classes after being dropped for non-payment • Completing the process for tuition exemptions or waivers through Financial Aid State-Mandated Course Drop Policy
State-Mandated Course Drop Policy	<p>Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.</p>
Disability / Accessibility Services	<p>In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Texas at Tyler offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit https://hood.accessiblelearning.com/UTTyler and fill out the <u>New Student</u> application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant Director of Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at http://www.uttyler.edu/disabilityservices, the SAR office located in the University Center, # 3150 or call 903.566.7079.</p>
Student Absence due to Religious Observance	<p>Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.</p>
Student Absence for University-Sponsored Events and Activities	<p>If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time, the instructor will set a date and time when make-up assignments will be completed.</p>

<p>Social Security and FERPA Statement</p>	<p>It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.</p>
<p>Emergency Exits and Evacuation</p>	<p>Everyone is required to exit the building when a fire alarm goes off. Follow your instructor’s directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.</p>
<p>Student Standards of Academic Conduct</p>	<p>Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.</p> <p>i. “Cheating” includes, but is not limited to:</p> <ul style="list-style-type: none"> • copying from another student’s test paper; • using, during a test, materials not authorized by the person giving the test; • failure to comply with instructions given by the person administering the test; • possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed “crib notes”. The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test; • using, buying, stealing, transporting, or soliciting in whole or part the contents of a non-administered test, test key, homework solution, or computer program; • collaborating with or seeking aid from another student during a test or other assignment without authority; • discussing the contents of an examination with another student who will take the examination; • divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructors has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student; • substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;

	<ul style="list-style-type: none"> • paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program; • falsifying research data, laboratory reports, and/or other academic work offered for credit; • taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and • misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially. <p>ii. “Plagiarism” includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another’s work and the submission of it as one’s own academic work offered for credit.</p> <p>iii. “Collusion” includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.</p> <p>iv. All written work that is submitted will be subject to review by plagiarism software.</p>
<p>UT Tyler Resources for Students</p>	<ul style="list-style-type: none"> • UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu • UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu • The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses. • UT Tyler Counseling Center (903.566.7254)
<p>Information for Classrooms and Laboratories</p>	<p>Students are <i>strongly encouraged</i> to wear face masks covering their nose and mouth in public settings (including classrooms and laboratories). The UT Tyler community of Patriots views adoption of these practices consistent with its Honor Code and a sign of good citizenship and respectful care of fellow classmates, faculty, and staff.</p> <p>Students who are feeling ill or experiencing symptoms such as sneezing, coughing, or a higher than normal temperature should stay at home and notify their faculty. Students needing additional accommodations may</p>

	contact the Office of Student Accessibility and Resources at University Center 3150, or call (903) 566-7079 or email saroffice@uttyler.edu .
Recording of Class Sessions	Class sessions may be recorded by the instructor for use by students enrolled in this course. Recordings that contain personally identifiable information or other information subject to FERPA shall not be shared with individuals not enrolled in this course unless appropriate consent is obtained from all relevant students. Class recordings are reserved only for the use of students enrolled in the course and only for educational purposes. Course recordings should not be shared outside of the course in any form without express permission.
COVID Precautions	<i>It is important to take the necessary precautions to ensure a healthy and successful year. UT Tyler continues to urge you to protect yourselves against the flu, COVID and any new threats that may be developing. Be diligent about preventive measures such as washing hands, covering sneezes/coughs, social distancing and vaccinations, which have proven to be successful in slowing the spread of viruses. Encourage those who don't feel well to stay home, and if they show symptoms, ask them to get tested for the flu or COVID. Self-isolation is important to reduce exposure (CDC quarantine/isolation guidelines). Please work with your faculty members to maintain coursework and please consult existing campus resources for support.</i>

SCHEDULE:

Week	Date	Day Tues 11:00 – 1:45	DESCRIPTION OF ASSIGNMENTS	ASSIGNMENTS DESCRIPTION	TASKS ASSIGN. #
Week 1	Aug 22 - 26		N/A		
		Tues	1 Syllabus 2 Complete your Procore training	Procore training Directory	#1
				-	-

Week 2	Aug 29 – Sept 2		N/A		
		Tues	3 Module 1 <ul style="list-style-type: none"> Organize the existing material. Complete Procore certification training. Input existing data into Procore Software. Create a schedule reviewing old data 	Read / Upload Drawings Schedule	#2 #3
				-	-
Week 3	Sept 5 - 9		N/A		
		Tues	Labor Day – Sept 5 – no school 4. Module 2 <ul style="list-style-type: none"> Determine the required inspections for the City of Tyler How to create a work breakdown structure How to create an organization breakdown structure 	Inspections Work breakdown structure Organization breakdown structure	#4 #5 #6
				-	-
Week 4	Sept 12 - 16		N/A		
		Tues	5. Module 3 <ul style="list-style-type: none"> What is site logistics? How to create a site logistics plan. Start a Commissioning & quality assurance checklist. Practice your presentation. 	Site Logistics Commissioning/Quality Control Presentation – Practice Milestone #1	#7 #8 #9
				-	-

Week *5	Sept 19 - 23		N/A		
		Tues	6. Module 4 <ul style="list-style-type: none"> Conduct a full estimate take off of the project. 	Estimating/ Takeoff	#10
Week 6	Sept 26 – 30		N/A		
		Tues	7. Module 5 <ul style="list-style-type: none"> Finish completing the full estimate takeoff of the project. Create Cost Codes for the project. Insert the preconstruction budget in Procore based on the takeoff and cost codes. 	Budget Cost Codes Estimating/ Takeoff	#11 #12
Week 7	Oct 3 - 7		N/A		
		Tues	8. Module 6 <ul style="list-style-type: none"> Input and organize data into Procore Software. Job sit Visit How to be successful at writing daily logs and updating photos Practice presentation practice #2 	Daily Logs/ Photos Site Visit Software Phone App install and use Presentation – Practice Milestone #2	#13 #14

Week 8	Oct 10 - 14		N/A		
		Tues	9. Module 7 <ul style="list-style-type: none"> Who to create a meeting agenda. Following up on a meeting agenda How to preform a weekly safety/site meeting 	Meeting Agenda Weekly Site Meetings	#15 #16
Week 9	Oct 17 - 21				
		Tues	10. Module 8 <ul style="list-style-type: none"> Creating and understanding the importance of RFI's BIM Modeling 	RFI BIM	#17 #18
Week 10	Oct 24 - 28		N/A		
		Tues	11. Module 9 <ul style="list-style-type: none"> Presentation #3 (in front of Habitat) 	Presentation – Practice Milestone #3 BIM Continued	#19
Week 11	Oct 31 - Nov 4		N/A		
		Tues	12. Module 10 <ul style="list-style-type: none"> Create Drop box folder Create invitation to bid Add Documents Create a responsibility matrix 		#20 #21 #22 #23

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Week 12	Nov 7 - 11		N/A		
		Tues	13. Module 11 <ul style="list-style-type: none"> Secure Subcontractor info/ send out Bid invites Send out bid invites Bid Scoping begins 		#24 #25
Week 13	Nov 14 - 18		N/A		
		Tues	14. Module 12 <ul style="list-style-type: none"> Secure Subcontractor info/ send out Bid invites Send out bid invites Bid Scoping begins 		#24 continue. #25 continue
Week 14	Nov 21 - 25		Spring Break	Spring Break	Spring Break
Week 15	Nov 28 – Dec 2	Tues	15. Module 13 <ul style="list-style-type: none"> Budget/Final Estimate/Budget Tracker Contracts / PO's Schedule / Poll Planning Presentation #4 (Habitat) low bidders meeting / Award Contracts meeting 		#26 #27 #28
			Final Week / NO FINAL EXAM	NO FINAL EXAM	