The University of Texas at Tyler
Department of Construction Management

CMGT: 3305 Applied Construction Management Program Principles and Practices

Course Syllabus (Fall 2023)

Time & Venue	***9:30 to 10:50*** AM Every Tues and Thur in Room RBS 1031 for 28 classes = ***BIG CHUNKS of info and learnings*** NOTE: Construction is a ***service industry to an owner*** of the project. The owner is our only "***concern***" to whom we owe "***excellent performance"*** that requires our timely and "***professional competence"*** in all of the duties required to meet all the required outcomes/goals of the project. ***The Management of Time is of supreme importance to a project***. We will practice this skill and trait in 3305. The professional standard is: 1. ***NEVER be late*** for any class. If you *must* be late OR if you *must* miss a lecture ***you MUST*** notify me ahead of time. Any tardy attendance to class or submission of nay graded material will be ***graded as a ZERO*** if the tardy or late submission is not approved by ME 24 hours ahead of time. ***Note:*** Just like the real jobs that many of you have -- *We expect you to be on time and ready when class starts. IF you come late without prior permission:* **1.** ***you will not be allowed into the class and interrupt the project underway for that day*.** 2. You must see me after the end of class and explain why you were late. You will get a ZERO for that class and exercise if you do not have a valid excuse for your tardiness. 3. An excuse for being late would be death in family, validated urgent medical emergency validated by a doctor note, or some validated significant act of God like a car accident. 4. Anything due for that class that is not turned in by start of class is late. It is possible in extenuating circumstances to have A "COORDINATED LATE" submission that can occur when you contact me in advance. (That means 24 hours in advance except for real emergencies). *2.* Never miss a lecture – there are no complete CM professional textbooks – the material in the text is heavily augmented by me as we discuss the material in *each class – both the text and lecture sources are the*

	material that will be used for all projects and exams in CMGT 3305.
Instructor	Joe Boylan, Asst Professor of Practice Office: RBS 1037 Email: jboylan@uttyler.edu Phone: (903) 565-5884 Office hours: 0800:00 a.m. – 1700 p.m. I am *always available for help* in my office anytime I am not teaching. (See office hours outside of RBS 1037) To ensure you get your necessary help please email me ahead of time and we can get your visit locked into the schedule. I ***am always available*** by text or email if an office visit is not the best option for you.
Teaching Assistant	Note: The CM Honor Society does provide *extra* instruction and assistance to students needing extra help in 3305. Contact me or them to set up extra help if you need it. Note: I highly recommend you ***form a study team*** with some classmates now! Keep the team together and active – this is one of the most successful aids you can have in CM!
Course Website	See UT Tyler's 3305 ***Canvas Website*** – this is where the most current and complete source of course material will be housed. You are ***required*** to visit this site daily for course updates.
Course Objective	CMGT 3305 is a course in the application of fundamental construction management principles and practices necessary for the professional programmatic and design skills needed to be a successful Integrated Project Leader (IPL) in today's CM profession with emphasis in civil construction projects.
Course Outcomes	Part 1 - ***CM Programmatic Skills***: Taking the ***design*** information given to you by the owner in the Project Bid Book we will look at how the GC will formulate the complete project data necessary to fulfill the construction contract. The development of this GC project book will involve: 1. Understanding of the contracts and contract information used in Construction. 2. Plan reading and material takeoff principles 3. Understand the fundamentals of architectural plans and takeoff techniques 4. Understand how CSMI formats and displays the critical project plan information for the builder. 5. Understand the role of codes, specifications, and technical requirements impact the means, methods, and materials used by a GC on the project.

	6. Development of critical takeoff skills to help with the accurate development of a project budget and schedule. Part 2 – ***Construction professional design and engineering fundamentals*** 1. Explain basic principles of static construction engineering. 2. Learn how to analysis and solve for the basic forces working on static structures. 3. Learn to use Free Body Diagrams to analyze static structures. 4. Calculate stresses in a member subjected to combined loading due to axial, torsional, and/or bending forces acting both externally and internally on structural members of the static structure. 5. Analyze the stress and moment forces acting on a simple beam and draw the corresponding internal V and M for that beam under the loads given. 6. Calculate the centroid of any structure. 7. Calculate the Moment of Inertia for any structure.
Note to Student About a Syllabus COVID Information	***This syllabus is a statement of intent*** about how the course will be taught this semester. It outlines what we will cover, what you will need to do in the course, and it explains what and when you must do these tasks to successfully complete the course and get a great final grade. This syllabus is intended to guide or mastery of the subject matter. Daily review of the course syllabus and course requirements on the Canvas web site will protect you from being unaware of major changes in course requirements and due dates if they are required –NOTE: ***I reserve the right to make changes as necessary to the syllabus with announcement of changes.*** As we learned during COVID there are many circumstances outside of our direct course control that may require changes to this syllabus in content and schedule. These will always be announced in advance and the syllabus will be updated on Canvas so all can be aware of the required changes. *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.*
Prerequisite/Co-Requisite	Approval by the CM Dept. Head is a prerequisite for this course.

Required Texts	1. *Plan Reading and Material Takeoff by Wayne J DelPico, R.S.Means Company* ISBN 978-0-87629-348-5 2. *Statics and Structural Strength of Materials for Architecture and Building Construction* (4th Ed.) by Barry Onouye and Kevin Kane (ISBN 978-0-13-507925-6) ***NOTE: Class slides in lecture are NOT complete information. You MUST read the chapters and all quizzes and exams will include information in the chapter in the text and may NOT have been included in class lecture slides!*** ***NOTE:*** ***This course assumes you will have read the material in the text as assigned and done any homework due for that day. I will pick a few sample problems from the reading and the homework in class and quickly review them if I think this will help highlight the key learnings for the lecture. I WILL NOT SOLVE THEM STEP BY STEP as an example of HOW TO SOLVE THEM! Lectures should not be the first time you are seeing the problems and their solutions.***
Grading	Contributions towards final grade (out of 100%) *10% Attending Weekly Lectures and Discussions* • Attendance and preparedness for ALL weekly lectures in CMGT 3305 are expected in order to receive the full 10% credit for this portion of your final grade. • Also includes ***unannounced*** ***in class quizzes*** *10%* ***Cardboard Canoe Project Due 10/22*** *70% Exams 1- 5* *10%* ***Rose Garden GC Project Book DUE 10/20*** *10% Instructor Grade and Quizzes* Letter grades will be assigned based on the final course grade: A 90 and above B 80 to 89.99 C 70 to 79.99 D 69 to 65 F 65 and below ***A grade of 69 (D) or below will be a failure to complete the course for graduation in the department.*** No letter grade will be released until it is official on the University grade system.

General Syllabus Student Information and Rights	General Syllabus Student Information and Rights .docx

3305 Course Schedule *(Subject to change as needed throughout the semester- you will find latest syllabus in Canvas!)*				
Date	Lesson	Topic for Class	Reading	Assignment
8/22/2023	1	1 Syllabus 2 Basics of Drawings and Plans 3 Intro to Rose Garden BID 4 Cardboard Canoe Proj.	Read syllabus in Canvas; Read Review Canoe Project in canvas Review Rose Garden Bid Award in Canvas	***Draft resume due next class***
8/24/2023	2	Estimating Principles, Reading plans and the "math" of takeoffs	Chapter 1 AND 2 of Plans textbook	*Professional Development Prep Class Bring draft resume!*
8/29/2023	3	CMSI and various Specs and Standards	Chapter 3	Inserted Professionalism
8/31		Prep		
9/5		Prep		
9/7		Give complete definition		Team Briefing
9/12		Exam #1		
9/14	4	General Proj. Requirements	Chapter 4	TEXT
9/19	5	Proj Site Work	Chapter 5	TEXT
9/21	7	Concrete & Masonry	Chapter 6 &7	TEXT
9/26/2023	11	Review Kr, Drawings, Masterformat		Canvas
9/28/2023	12	Metals, Wood, Plastic	Chp 8 and 9	Pick project
10/3/2023	13	Thermal, Moisture, Doors and Windows	Chp 10 and 11	
10/5/2023	14	Exam #2	Chapter 4 thru 11	"

10/10/2023	15	Finishes, Mechanical , Electrical Systems	Chapter 12,15,16	CANVAS Material
10/12/2023	16	Rose Garden Project Day		NO LECTURE
10/17/2023	17	EXAM # 2	Chp 8,9,10, 11, 12, 15, 16	FOR GRADE
10/19/2023	18	Rose Garden GC Project Book in Masterformat ***w/schedule and budget***	Email Project	ATTEND Career Success Conference!
10-21		Cardboard Canoe		
10/24/2023	19	Forces and Vectors	Pg. 1-28	2.1 -2.4 pg 27 and 28
10/26/2023	20	Vector Addition	Pg. 28-41	2.6-2.8 2.9 - 2.13
10/31/2023	21	MOMENT and Varignon's Theorem	Pg. 42-51	2.14-2.16, 2.19-2.23
11/2/2023	22	Parallel Forces and FBD	Pg. 52-60	2.24,2.25 EX 2.22
11/7/2023	23	Reaction Forces from Connectors	Pg. 61-76	2.28-2.33 (not 2.31)
11/9/2023	24	Equilibrium of Rigid Bodies	Pg. 74-84	2.34,2.35
11/14/2023	25	Exam # 3	Pg. 86-95	2.42,2.34,2.46,2.48,2.50-53, 2.55,2.57-58,2.60
11/16/2023	26	Basic Cable systems	Pg 98-106	3.1, 3.2
11/20 – 11/24		Thanksgiving Break		
11/28/2023	27	Equilibrium in Rigid Bodies	CH 3 p 111-116	3.5,3.6,3.8-10
11/30/2023	28	EXAM # 4		For Grade