University of Florida
M.E. RINKER, Sr. SCHOOL OF CONSTRUCTION MANAGEMENT

BCN 4423 TEMPORARY STRUCTURES

Spring 2026 | Syllabus

Honor Code: Students are expected to comply with the spirit and intent of the University of Florida Honor Code, which states, "*We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.*"

Instructor: Idris Jeelani, PhD
Office: Rinker 317
Email: Mail tool in e-Learning in Canvas (preferred method)
Website: UF e-Learning in Canvas
Office Hours: Mondays 10:30 – 11:30 or by appointment
TA: Ali Katooziani (al.katooziani@ufl.edu)
TA office hours: TBD

COURSE DESCRIPTION: To study the temporary structures that contractors have to build in order to construct the primary structure. This includes formwork, scaffolding, excavation support systems, and equipment for hoisting materials, personnel, and erecting structures.

INSTRUCTIONAL METHODS: Class lectures, guest lectures, videos, In-class Exercises, and a final project.

COURSE LEARNING OUTCOMES (CLOs):
Upon completion of the course, students will demonstrate the ability to:

1. Analyze and design wood beams, and columns using NDS for Wood Construction.
2. Analyze and design formwork for concrete walls and slabs.
3. Design re-shoring for elevated slabs
4. Estimate the quantity of formwork material required for a concrete structure
5. Identify alternative formwork systems, review alternative scaffolding systems
6. Select options for the support of excavation systems.
7. Identify erection equipment to select the most suitable equipment for hoisting materials, personnel, and erecting structures.
8. Choose the correct boom length for crane operation, design a safe rigging system for crane operation, calculate the tipping load of a crane

Table 1: Assessment Strategy

Course Learning Outcomes (CLO)	Assignment	Student Learning Objectives (SLO)		Percent students passing with a 70 & or higher
		SACS	*ACCE*	
1.Analyze and design wood beams, and columns using NDS for Wood Construction.	Exam 1	1	19	80%
2.Analyze and design formwork for concrete walls and slabs for a multistory building	Exam 2 / Term Project	1	8,5	80%
3. Design re-shoring for elevated slabs	Assignment 4	1	-	80%
4.Estimate the quantity of formwork material required for a concrete structure	Assignment 5	1	4	80%
5.Identify alternative formwork systems, review alternative scaffolding systems	Exam 3	1	-	80%
6. Select options for the support of excavation systems.	Exam 3	1	-	80%
7.Identify erection equipment to select the most suitable equipment for hoisting materials, personnel, and erecting structures.	Exam 4	1	-	80%
8. Choose the correct boom length for crane operation, design a safe rigging system for crane operation, calculate the tipping load of a crane	Exam 4	1	-	80%

ACCE : American Council for Construction Education
SACS: Southern Association of Colleges and Schools

ACCE SLO 4 Create construction project cost estimates. *Reinforce*
ACCE SLO 5 Create a construction safety plan. *Reinforce*
ACCE SLO 8 Analyze methods, materials, and equipment used to construct projects *Direct Assessment*
ACCE SLO 19 Understand the basic principles of structural behavior. *Reinforce*
SACS 1 Apply knowledge of engineering, materials, methods, equipment, and processes to safely construct buildings and structures

REQUIRED TEXTBOOKS

- National Design Specifications for Wood Construction (NDS), by American Forest and Paper Association (2015 edition). The NDS and Supplement are available as free view only pdf

https://www.awc.org/pdf/codes-standards/publications/nds/AWC-NDS2018-ViewOnly-171117.pdf

SUPPLEMENTAL READINGS

1. Johnston, David W. Formwork for Concrete 8th edition: ISBN: 9780870319129 There may be paperback versions available that may be cheaper.
2. Temporary Structure Design by Chris Souder, ISBN-13: 978-1118905586
3. Design of Wood Structures 6th edition, ISBN: 0071379320
4. Forest Products Laboratory, Wood Handbook: Wood as an Engineering Material http://www.fpl.fs.fed.us/documnts/fplgtr/fpl_gtr190.pdf (509 pages)
5. APA The Engineered Wood Association, Design/Construction Guide: Concrete Forming
6. APA The Engineered Wood Association, Plywood Design Specification

STUDENT REQUIREMENTS: **Attendance is Mandatory.** Grades will be based on tests, assignments, in-class exercises, and the final project. **No Make-ups** for tests, quizzes, assignments, or the final project will be granted except for documented medical emergencies. Attendance at every class meeting is expected. **If you miss class, you also miss the opportunity to earn credit for any exercise or exam held that day, regardless of whether it was previously announced or adjusted during the semester.**

HOMEWORK POLICY: Assignments will be accepted up to the established time. Any Assignment turned in after the deadline will be graded at 50% of the original credit. Any assignment turned in more than 48 hours late will not be accepted, and the student will receive a 0 (zero) on the assignment. All work turned in for this course is expected to be of professional quality in content and presentation.

COURSE GRADING:

- Tests: 4 tests 40%
- Assignments: 8 assignments 25%
- Final Project: 15%
- In-class exercises/Discussions 20%
- **Total 100%**

Grade Scale: Grades will be given according to the following scale.

Letter Grade	Numeric Grade
A	≥ 93
A-	≥ 90 AND < 93
B+	≥ 87 AND < 90
B	≥ 83 AND < 87
B-	≥ 80 AND < 83
C+	≥ 77 AND < 80
C	≥ 73 AND < 77
C-	≥ 70 AND < 73
D+	≥ 67 AND < 70
D	≥ 63 AND < 67
D-	≥ 60 AND < 63
F	<60

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (http://www.dso.ufl.edu/drc/). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments (discussion, term paper, extra credit) or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at http://www.dso.ufl.edu/students.php. The Honor Code will be applied in the class. We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. On all work submitted for credit by students at the university, the following pledge is either required or implied: "On my honor, I have neither given nor

received unauthorized aid in doing this assignment." It is Rinker School policy that any incident of cheating, copying, or other attempts to deceive will be penalized by course failure.

NETIQUETTE, COMMUNICATION COURTESY POLICY: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. Detailed guide is available at http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

GETTING HELP WITH E-LEARNING WEBSITE: In the case you have technical difficulties with e-Learning in Canvas, please contact the UF Help Desk at: Learning-support@ufl.edu; (352) 392-HELP - select option 2; https://lss.at.ufl.edu/help.shtml . If your technical difficulties will cause you to miss a due date/time, you MUST report the problem to the UF Help Desk **before** the due date/time.

CELLPHONES. Cellphone use is not allowed in classrooms. Use of cellphones during class will discount attendance. Use of cellphones during an exam will result in failing the exam.

LAPTOPS & TABLETS. These devices should only be used to take notes related to lectures. Use of these devices for social media or any other unrelated purposes during class hours will not be permitted and will discount attendance

COMMUNICATION Use the e-Learning in Canvas environment to send an email to the instructor and teaching assistant. Do not e-mail the course instructor and teaching assistant outside of the e-Learning in Canvas system because emails received outside of e-Learning will not receive a response. Please allow 36 hours for a response to your email. The instructor and teaching assistant reserve the right not to respond to course inquiries on the weekend.

- You are responsible for addressing grades/omissions within one week of the grade being posted on e-Learning in Canvas. After one week, the grade/input stands for the class regardless of cause or circumstance.

Tentative Fall 2024 Schedule

Week	Section	Assignments
Week 1 -2	Module 1 Temporary Structures- General Information BasicTimber Design Adjustment Factors Timber Beam Analysis	Assignment 1 –
Week 3	Module 1 Timber Column Analysis	
Week 4-5	Module 1 Column Spacing/Beam Span Review Module 1	Assignment 2 –
Test 1		
Week 6-7	Module 2- Formwork introduction Wall Formwork	Assignment 3 –
Week 8	Module 2 – Slab Formwork Timber Shores	Assignment 4 –
Week 9	Module 2 –	

	Reshoring/Shore bracing	
Week 10	Review Module 2	
Test 2		
Week 11	Module 3 Quantity Takeoff	Assignment 5 –
Week 12	Module 4 Scaffolding	
Week 13	Module 4 - Earth Retaining Structures	Assignment 7 –
Test 3		
Week 14	Module 5 - Introduction to Cranes Crane loads Crane Stability	
Week 16	Module 5 Rigging configuration Crane configuration Example	
Final Project due by end of the day on TBD		
Test 4		

Note from the instructor: *The syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.*