

University of Florida
M.E. RINKER, Sr. SCHOOL OF CONSTRUCTION MANAGEMENT
BCN 3431C Structures
SPRING 2025 | 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: Eileen Pesantes-Tavares, Ph.D.
Office Location: 313 Rinker Hall
Office Hours: M, W 11:30-11:30, or by appointment (Office hours may be conducted via Zoom)
Meeting Periods: M,W 2nd and 3rd Period (8:30 AM – 10:25 AM)
Location: Rinker 238
Credit: 3
Prerequisites: Junior Status or Higher

COURSE DESCRIPTION: To familiarize the student with the material properties, design procedures, and code requirements for steel and concrete buildings.

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

COURSE LEARNING OUTCOMES (CLOs):

Upon completion of the course, students will demonstrate the ability to:

1. Review ASTM standards for structural elements and recognize use of various structural steel shapes, metal decks, open-web bar joists, high strength steel bolts, welds and reinforcing steel. (PL 1, ACCE SLO 7, 8)
2. Use sections of Florida Building Code related to structural design and calculate code-required design loads; be aware of the existence of other local and national building codes. Understand different design methodologies such as allowable stress design and load and resistance factor design. (PL 1, ACCE SLO 8, 19).
3. Recognize different structural systems and their assembling methods, including pre-stressed concrete, precast concrete, cast-in place concrete, T-beams, doubly reinforced beams. (PL 1, ACCE SLO 7).
4. Analyze and design simple structural elements (beams, columns, trusses) made of steel and concrete for bending, shear, deflection, compression and tension as applicable, as well as connections between such elements using AISC manual and ACI codes. (PL 1, ACCE SLO 19).
5. Read, understand, and use structural drawings, shop drawings, and erection and placing drawings as well as specifications for structural members. (PL 1, ACCE SLO 7, 8, 15)

6. Understand fundamentals of structural design and be creative in proposing solutions to daily problems encountered in a construction project. (PL 1, ACCE SLO 8, 19).

REQUIRED TEXTBOOKS

1. Reinforced Concrete Design, George, F. Limbrunner and Abi O. Aghayere, Ninth Edition, 2018

SUPPLEMENTAL READINGS

1. Structural Steel Design: A Practice Oriented Approach by [Abi O. Aghayere](#)[Links to an external site.](#) and [Jason Vigil](#)[Links to an external site.](#), Third Edition, 2020, Mercury Learning and Information
2. Structural Steel Design, William T. Segui, Prentice Hall
3. 'Applied Statics and Strength of Materials' by Spiegel and Limbrunner.
4. Concrete Structures, Setareh and Darvis, 2007, Prentice Hall
5. 'Manual of Steel Construction', AISC, Thirteenth Edition (PDF on Canvas)

STUDENT REQUIREMENT Student grades will be based on tests, assignments, in-class exercises, and final project. There are **no make-ups** for missed tests, quizzes, assignments, or final project.\

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: 7 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/Links_to_an_external_site.). 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>. [Links to an external site.](#) 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>[Links to an external site.](#)

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> [Links to an external site.](#) 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 result in a penalty of 10 points for every incident.

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
- 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

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”