

University of Florida
M.E. RINKER, Sr. SCHOOL OF CONSTRUCTION MANAGEMENT
**BCN 4905 Fundamentals of Building Construction I: Construction
Methods, 2 Credits**
SUMMER 2024 | Syllabus

Instructor: Eileen Pesantes, PhD
Office: 313 Rinker Hall
Office hours: By appointment. Office hours may be conducted via Zoom.
Email: Mail tool in Canvas (preferred method)
Prerequisites: None

COURSE DESCRIPTION: Examines the main methods and procedures for constructing commercial buildings, with a specific focus on civil, structural, and architectural systems. Identifies key management challenges associated with these systems and prepares students to evaluate and choose from available construction methods.

INSTRUCTIONAL METHODS: Class lectures, videos, discussion, assignments, exams.

COURSE LEARNING OUTCOMES (CLOs): Upon completion of the course students will be able to:

1. Describe construction methods and procedures appropriate for the civil, structural, and architectural systems used in commercial construction.
2. Explain a rationale to support or evaluate a choice between alternative construction methods.
3. Interpret construction drawings, specifications, and models for planning construction work.

RECOMMENDED TEXTBOOKS

Andres, C. K., Smith, R. C., & Woods, W. R. (2004). *Principles and practices of commercial construction*. Pearson/Prentice Hall.

Mehta, M., Scarborough, W., & Armpriest, D. (2013). *Building construction: Principles, materials, and systems*.

CLASS POLICIES: Class participation is a **VERY** important aspect of this course. Each student is expected to attend every class, be on time and in their seat and ready for the lecture. Quizzes and attendance will be given on a frequent basis! To receive any consideration for any absence the student is responsible for notifying the instructor before the event causing the absence. Exceptions will apply only to unforeseeable events. The student is expected to conduct him/herself in a professional manner. Disruptive conduct in the class will not be acceptable. The instructor is NOT responsible for any electronic failures. Email test responses are NOT acceptable.

COURSE GRADING (Tentative point distribution):

Quizzes, exams	60%
Assignments	30%
Attendance and participation	10%
TOTAL	100%

GRADING BASED ON POINTS EARNED AS A PERCENTAGE OF TOTAL POINTS

A=93-100	C=73-76.99
A-=90-92.99	C-=70-72.99
B+=87-89.99	D+=67-69.99
B=83-86.99	D=63-66.99
B-=80-82.99	D-=60-6.99
C+=77-79.99	E<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.

STUDENT EVALUATIONS: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

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 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 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.

COURSE TENTATIVE SCHEDULE:

Week	Topic	Topics	
1	Introduction, Site Work	<ul style="list-style-type: none"> • Site investigation and mobilization planning (land surveys, demolition, subsurface investigation) • Earthwork (types of equipment and methods) • Earthwork (excavation retention and safety) 	<ul style="list-style-type: none"> • Assignment 1 – Earthwork requirements
2	Foundations	<ul style="list-style-type: none"> • Deep foundations (piles, caissons) • Shallow foundations (spread and strip footings, piers) 	<ul style="list-style-type: none"> • Assignment 2 – Foundation Requirements • Exam 1
3	Concrete	<ul style="list-style-type: none"> • Concrete work (aggregate, mix design, testing, transportation, placement, joints, etc.) • Concrete formwork design and selection (stick-built vs. reusable, shoring and reshoring) • Concrete structures (reinforcing steel, cast-in-place, precast, tilt-up) 	<ul style="list-style-type: none"> • Assignment 3 – PCC Concrete Requirements
4	Timber and Masonry	<ul style="list-style-type: none"> • Timber structures (wood columns and beams, glue-laminated, plywood) • Masonry construction (CMU, brick, mortar, scaffolding) 	<ul style="list-style-type: none"> • Assignment 4 – CMU and Brick requirements • Exam 2
5	Steel	<ul style="list-style-type: none"> • Steel construction (steel properties, shapes, connection types, steel frame components) • Steel fabrication • Steel site work (erection, crane selection and location) 	<ul style="list-style-type: none"> • Assignment 5 – Structural steel requirements
6	Building Envelope and Interior Work	<ul style="list-style-type: none"> • Curtain wall and building envelope construction (masonry, precast concrete, glass, exterior windows and doors) • Roofing (design principles, framing systems and styles, membranes, and insulation) • Interior construction (tile, drywall, ceilings, stairs) 	<ul style="list-style-type: none"> • Assignment 6 – Curtain wall and finishes requirements. • Exam 3

Note from the instructor: *The syllabus and schedule represent 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.*