

M.E. RINKER, SR., SCHOOL OF BUILDING CONSTRUCTION
BCN 4787 – Construction Capstone Project
Course Syllabus

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Objectives:

This course is intended to develop a higher level of comprehensive understanding of the construction process and problem solving that begins with conception and progresses through the completion, start-up, and maintenance of a construction project.

The expectations and caliber of the student's work are elevated to the level of the business community and evaluated on that basis. Work that may have been previously accepted during the student's academic career may no longer be acceptable. If the student's work product is considered unacceptable in the workplace then it is unacceptable here. If your boss won't accept it neither will we.

A construction project is simulated with each student being responsible for designing, developing, estimating, scheduling, contracting and administering the works for the completion of a small commercial or light industrial project.

Course Learning Outcomes (CLO):

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

1. Formulate the overall design of the project and prepare a 3D virtual model. (SACS 1, ACCE SLO 19)
2. Perform quantity takeoffs and develop a complete estimate of project costs. (SACS 2, ACCE SLO 4)
3. Organize the elements of the project into a viable construction work plan and schedule. (SACS 3, ACCE SLO 5, 8, and 16)
4. Set up a project administration system for contracts, schedule of values, and pay applications (SACS 4, ACCE SLO 7 & 10)
5. Organize, present, and defend the technical and financial data of the project. (SACS 5, ACCE SLO 2)
6. Prepare a project proposal from a commercial development/investment perspective. (ACCE SLO 1, 9, 12 & 18)

SACS = Southern Association of Colleges and Schools
ACCE = American Council for Construction Education
SLO = Student Learning Outcome

ASSESSMENT METHODS AND TARGETS:

Assessment	CLO 1	CLO 2	CLO 3	CLO 4	CLO 5	CLO 6	Target
Assignments 1 - 5						X	At least 80% of students receive a 70% or better
Assignment 6	X						At least 80% of students receive a 70% or better
Assignment 7		X					At least 80% of students receive a 70% or better
Assignment 8			X				At least 80% of students receive a 70% or better
Assignments 9, 10, 11 & 12				X			At least 80% of students receive an average of 70% or better
Presentations 1, 2 & 3					X		At least 80% of students receive an average of 70% or better

SACS Student Learning Outcomes

SACS 1: Apply knowledge of engineering, materials, methods, equipment, and processes to safely construct buildings and structures.

SACS 2: Survey and quantify building components to estimate project costs, analyze progress, and control expenditures.

SACS 3: Create an effective planning, scheduling and control system by identifying, evaluating and organizing the diverse elements of a construction project.

SACS 4: Set up and manage project administration and management systems to efficiently document and monitor the construction process.

SACS 5: Communicate technical and financial data effectively in speech and writing to all stakeholders in the construction process.

ACCE Student Learning Outcomes

ACCE SLO 1: Create written communications appropriate to the construction discipline.

ACCE SLO 2: Create oral presentations appropriate to the construction discipline.

ACCE SLO 4: Create construction project cost estimates.

ACCE SLO 5: Create construction project schedules.

ACCE SLO 7: Analyze construction documents for planning and management of construction processes.

ACCE SLO 8: Analyze methods, materials, and equipment used to construct projects.

ACCE SLO 9: Apply construction management skills as an effective member of a multi-disciplinary team.

ACCE SLO 10: Apply electronic-based technology to manage the construction process.

ACCE SLO 12: Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.

ACCE SLO 16: Understand construction project control processes.

ACCE SLO 18: Understand the basic principles of sustainable construction.

ACCE SLO 19: Understand the basic principles of structural behavior.

Course Schedule

PROJECT FEASIBILITY PHASE		
Assignment 1	Project Proposal	
Assignment 2	Site Selection	
Assignment 3	Feasibility Analysis	
Assignment 4	Qualification	
Presentation 1	Presentation	Submittal Number 1 Due
PRECONSTRUCTION PHASE		
Assignment 5	Green Building	
Assignment 6	Design Drawings	
Assignment 7	Project Estimate	
Assignment 8	Project Schedule	
Presentation 2	Presentation	Submittal Number 2 Due
CONSTRUCTION PHASE		
Assignment 9	Contracts	Prolog
Assignment 10	Pay Applications	Prolog
Assignment 11	Change Orders	Prolog
CLOSEOUT PHASE		
Assignment 12	Closeout	Prolog
Presentation 3	Presentation	Submittal Number 3 Due

Due Dates / Late Work

Allowing some persons extra time to complete assignments while others are on time is inherently unfair. Therefore: ALL LATE WORK IS PENALIZED, regardless of the reason. You should consider the due date in a similar fashion to submitting a bid.

- Each submittal is due AT THE START OF CLASS ON THE DUE DATE. NOT by the end of class, NOT by the end of the business day.
- Submissions turned in after the start of class receive an automatic 10 percent deduction for each class period late. For example, if an assignment is due on Tuesday, and you do not turn it in at the beginning of class, you have until the beginning of the next class (Thursday) to turn it in for a -10% reduction. You'll receive a 20% reduction if you wait until the following Tuesday and so on.
- Partial submissions are unacceptable. If your binder is missing an assignment, that assignment will get 0 points. Once you turn in your binder you cannot add missing items. It may be better to wait until the entire package is finished than turn in incomplete work.
- Once an assignment has been graded and returned to the class, late submissions are not accepted.

Grading

A rubric will be provided with each assignment detailing the requirements and point values of each submission.

The point value for each assignment will be clearly indicated when assigned.												
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Numeric Grade	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	0-59
Quality Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Class Attendance

Attendance is mandatory. The ONLY exception is if you are on a school sponsored activity. **Job interviews are NOT excused absences.** Attendance is taken using a sign-in sheet. Signing in for another student is a violation of the honor code and could result in an automatic failure of the class. You are responsible for all material presented in class, lecture notes on Sakai, handouts, guest speakers, and anything said or written by the instructor. Unexcused absences have a direct bearing on whether or not you can appeal / renegotiate a grade.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Presentations:

An integral part of this course are presentations of your work to your peers.

Notice: Failure to make a presentation on your scheduled day results is a -20 point grade.

Honor Code

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

The Rinker School prides itself in “Promoting professional and ethical behavior in education and practice.” As students continue their academic careers in the Rinker School, it is imperative that everyone maintains a high level of integrity. In the classroom setting, this translates into honest work being performed by all students.

Plagiarism

Capstone has been taught for many years and as a result there may be a temptation to “rely on the work of others”. Should the instructor determine that a students’ work is substantially similar to that of another (either past or present) the student may be subject to a rejection of that assignment and will be cited with an honor court violation. Similarly, the use of materials, worksheets, or data from previous semesters is considered cheating. The student understands that their work is subject to electronic verification by TurnItIn® or other technologies.

Students with Disabilities

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.”

Counseling

Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Evaluations

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

Periodically the instructor will communicate with the class via e-mails from Sakai. Please note: Do not respond to these e-mails. If you need to communicate use the instructor’s e-mail: rsmailles@ufl.edu