

RINKER SCHOOL OF CONSTRUCTION MANAGEMENT
UNIVERSITY OF FLORIDA

CONSTRUCTION DRAWING

COURSE NUMBER: *BCN 1251C*

NUMBER OF CREDIT HOURS: 3

RINKER HALL TBD

INSTRUCTOR: *Robert Ries*

*332 Rinker Hall
email through Canvas preferred
rries@ufl.edu
352 273 1155*

OFFICE HOURS: *TBD*

GRADUATE TEACHING ASSISTANT: *TBD*

OFFICE HOURS: *TBD*

ADDITIONAL RESOURCES:

Architectural Drawing and Light Construction, Philip A. Grau, Edward J. Muller, 8th Edition ISBN-10: 0135132150, ISBN-13: 9780135132159

Architectural Graphics, Francis D.K. Ching

Building Construction Illustrated, Francis D.K. Ching

Architectural Graphic Standards, Ramsey and Sleeper Architectural Graphics, Francis D.K. Ching

Reading Architectural Working Drawings, E L Muller Construction Details for Commercial Buildings, G E Wiggins

Other resources provided on course website

COURSE DESCRIPTION: *Provides basic working knowledge of architectural graphics, practice in instrumental drawing and experience in free hand sketching.*

PREREQUISITE KNOWLEDGE AND SKILLS: *None*

PURPOSE OF COURSE: *An effective construction process depends on communication of the owner's and architect's objectives and intent for a project. Construction drawings,*

and specifications are the documents are the basis for a contractual agreement between an owner and contractor as well as communicate in drawings and words what should be constructed. Construction documents and shop drawings are used throughout the construction process to estimate costs correctly, schedule activities optimally, order acceptable materials, allocate labor efficiently, build accurately, and generally manage construction up to project close out.

The course will introduce construction drawings and specifications and the use of drawings and specifications in the construction process. The course will focus on plan reading skills and use of drawings in the construction process from a construction manager's perspective.

COURSE OBJECTIVES: *By the end of this course, students will be able to:*

- 1. Explain the role of construction drawings and specifications in the construction process. [SACS SLO 1, ACCE SLO 7]*
- 2. Demonstrate plan reading skills by interpreting and explaining typical construction documents such as scaled plan, elevation, section, detail, structural, mechanical, and electrical drawings and door, window, finish, and equipment schedules. [SACS SLO 1, ACCE SLO 7]*
- 3. Utilize software to apply graphical skills to create construction drawings. [SACS SLO 1, ACCE SLO 10]*
- 4. Read and create construction drawings in order to facilitate communication in the construction industry. [SACS SLO 1, ACCE SLO 7]*

HOW THIS COURSE RELATES TO THE STUDENT LEARNING OUTCOMES IN THE CONSTRUCTION MANAGEMENT PROGRAM:

This course relates to

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

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

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

SACS = Southern Association of Colleges and Schools

ACCE = American Council for Construction Education

SLO = Student Learning Outcome

TEACHING PHILOSOPHY: *In this course, lecture and lab sessions complement one another. Students will be able to apply and reinforce learning through hands-on assignments with construction documents and communication tools that reinforce the concepts in lectures and provides real-world examples used in the construction industry. Students will demonstrate learning by demonstrating plan reading skills acquired in the course and creating examples of construction documents. Examples and practice in-class and in assignments will assess and guide learning. Questions and discussions that enhance learning for all are strongly encouraged.*

INSTRUCTIONAL METHODS: *Lectures will introduce concepts and labs will allow students to apply and demonstrate skills; a final project will assess knowledge and skills acquired in the course.*

COURSE POLICIES:

ATTENDANCE POLICY: *Required at all lectures and labs. 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>

MAKE-UP POLICY: *Missed assignments, quizzes, and exams can be made up with instructor's permission prior to assignment due date or quiz/exam date.*

ASSIGNMENT POLICY: *Assignments submitted after the late submission date without instructor's permission will be penalized.*

COURSE TECHNOLOGY: *Software will be available in the Rinker School computer lab and through UF Apps.*

UF POLICIES:

UNIVERSITY POLICY ON ACADEMIC ACCOMMODATIONS:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. See the “Get Started With the DRC” webpage on the Disability Resource Center site: <https://disability.ufl.edu/students/>.

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 Conduct Code at <https://sccr.dso.ufl.edu/process/student-conduct-code/>

The Honor Pledge: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Student 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.”

COMMUNICATION COURTESY: All members of the class are expected to follow rules of common courtesy in all email messages, discussions and other communication.

COURSE EVALUATION: 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, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

GETTING HELP:

For issues with technical difficulties for E-learning, please contact the UF Help Desk at:

- helpdesk@ufl.edu; (352) 392-HELP (4357); <https://lss.at.ufl.edu/>

GRADING POLICIES:

<i>Attendance</i>	10%
<i>In-class exercises & Homework</i>	35%
<i>Midterm Exam</i>	20%
<i>Final Project</i>	35%
TOTAL	100%

Most of the work will be completed in-class throughout the semester, therefore attendance is critical. There are no make-ups for missed classes unless you discuss your absence with the instructor before the classes you miss and provide appropriate documentation within 1 week to support your absences. Two unexcused absences without penalty; third absence FINAL LETTER GRADE DOCKED 1 LETTER!

GRADING SCALE:

<i>Letter Grade</i>	<i>% Grade</i>
<i>A >=</i>	<i>93.3</i>
<i>A- >=</i>	<i>90</i>
<i>B+ >=</i>	<i>86.7</i>
<i>B >=</i>	<i>83.3</i>
<i>B- >=</i>	<i>80</i>
<i>C+ >=</i>	<i>76.7</i>
<i>C >=</i>	<i>73.3</i>
<i>C- >=</i>	<i>70</i>
<i>D+ >=</i>	<i>67.7</i>
<i>D >=</i>	<i>63.3</i>
<i>D- >=</i>	<i>60</i>
<i>E <</i>	<i>60</i>

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

COURSE SCHEDULE:

Week #	Module		Topics
1			
	1 + 2		Contract document overview; Plans and specifications
2	3 + 4		Scale and Lettering
			Line Types, Symbols, Abbreviations
3	5		Basic projections
	5		Basic projections; Rinker School Welcome Reception 4:30 pm
4	5		Guest lecture: Construction documents for estimating, submittals and procurement
			Sketch up
5	6		Floor Plans
	7		Reflected Ceiling Plans and Details
6	8		Elevations, Sections
	9, 10		Stairs, Schedules, and Specifications
7	11		Mechanical/Plumbing/Electrical
	12		Structural
8	13		Site and Civil
	14		Classroom drawings: Floor Plan
9	14		Classroom drawings: Floor Plan
	15		Classroom drawings: Elevations and Section
10	15		Classroom drawings: Elevations and Section; Sketch-up
			Review for Midterm Exam; Portfolio: Floor Plan Sketch
11	P1		Midterm Exam
			Portfolio: Sketch-up review; Floor Plan
12	P2		Portfolio: Floor Plan and Reflected Ceiling Plan
	P3		Portfolio: Detail wall section
13	P3		Portfolio: Elevations and Sections
			Portfolio: Sections, Area detail, and Large-scale Details
14	P4		Portfolio: Door & Window Schedules
			Portfolio: Site Plan
15			Thanksgiving
16	P5		Portfolio: Cover Page and Table of Contents
			5:00PM PROJECT SUBMISSION DEADLINE

Disclaimer: This syllabus represents the current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning. Such changes, communicated clearly, are not unusual and should be expected.