

# Construction Materials

## *BCN 1210*

Class Information:	Website:	<a href="https://ufl.instructure.com/">https://ufl.instructure.com/</a>
	Room:	Rinker 238 (for non-web sections)
	Time:	9:35 – 10:25 A.M.
	Days:	Monday, Wednesday and Friday
Instructor:	Dr. Damon Allen,	
	Email:	<a href="mailto:mvbdt@ufl.edu">mvbdt@ufl.edu</a> and <a href="mailto:damontallen@gmail.com">damontallen@gmail.com</a>
	Phone number:	352-234-3266 (cell number - it can receive texts)
	Physical Office:	Rinker 344
	Online Office:	<a href="#">FAQ Discussion Page</a>
Office Hours:	2:00 – 4:50 P.M.	Monday
	11:45 – 1:40 P.M.	Wednesday
	Or by appointment (or if I am in my office)	
Teaching Assistant:	Shirley Morque,	
	Email:	<a href="mailto:nellymorque@ufl.edu">nellymorque@ufl.edu</a>
	Office:	Rinker 341 (Powell Center)
	Office Phone:	352-273-1174

### **Required Text**

1. Simmons, H. Leslie: Olin's Construction Principles, Materials and Methods; John Wiley & Sons, 9th Edition, ISBN: 978-0-470-54740-3
2. Additional reference material will be linked in the notes and on the class website.

### **Additional Text:**

(Only used as reference.)

1. Basic Construction Materials - 7<sup>th</sup> edition
2. Sustainable Construction - 3<sup>rd</sup> edition
3. Green Building: Project Planning & Cost Estimating - 2<sup>nd</sup> edition
4. Select [Lynda.com](http://Lynda.com) Tutorials (free for students)

### **Description of Course:**

The course provides a general overview of basic construction related materials, properties, manufacturing / fabricating processes, and uses.

### **Subject Aims:**

This course is intended to be an introduction to the main construction materials currently used in industry along with an introductory understanding of aspects of green building materials.

**Course Learning Outcomes (CLO):**

1. Examine the properties of common construction materials and their behaviors under different environments, short- or long-term (SACS SLO 1, ACCE SLO 8).
2. Assess material properties, mechanical tests and quality control tests for wood and wood products, concrete, masonry, glass, plastics, iron and steel, aluminum and aluminum products, paints and protective coatings, bituminous products, gypsum products, resilient flooring, and carpeting (SACS SLO 1, ACCE SLO 8).
3. Appraise appropriateness and sustainability of materials for construction projects (SACS SLO 1, ACCE SLO 18).

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

ACCE SLO 1. Apply knowledge of engineering, materials, and methods, equipment, processes to safely construct buildings and structures. - Introduced

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

ACCE SLO 18. Understand the basic principles of sustainable construction. - Introduced

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

Assessment	CLO 1	CLO 2	CLO 3	Target
Sustainability Quiz			X	At least 80% receive a B or better
Modules 1-12 Quiz Total		X		At least 80% receive a 73% of possible or better
Materials Quiz	X			At least 80% receive a C or better

*Table 1: Assessment Matrix*

**Course Activities:**

There will be three lecture/discussion periods per week with corresponding reading assignments from the text. Text assignments should be done before the class in which they are discussed. Students are responsible for the content of all reading materials whether or not the material is covered in class. Although class is scheduled for three meetings per week, some Friday-class sessions may be substituted with guest lectures or individual/group projects.

**Assessment:**

The assessment will be based on individual student's demonstration of fulfilling the course objectives as set out in the syllabus and there will be no leniency based on previous accomplishment in other classes. The course will be examined using:

- Quizzes
- Participation
- Homework

The course instructor reserves the right to grade assigned problems either on detailed checking or based on attempt as well as the right to not grade work that does not satisfy mandatory specifications.

Make up assignments, or quizzes will only be given upon proof of extenuating circumstances or prior arrangements. Please pay close attention to the deadlines on the Syllabus page on [Canvas](#), and turn your work in before it is due.

## Grading System:

The points for every quiz and assignment will be added together and then the percentage of the total out of the possible point amount will be used to determine 80% of your grade. The remaining 20% will be based on class participation.

Quizzes + Assignments	80%
Participation	20%
<hr/>	
Total	100%

## Grading Scale:

A-: 90% - 92.9%	A: 93% - 100%	B+: 87% - 89.9%
B-: 80% - 82.9%	B: 83% - 86.9%	C+: 77% - 79.9%
C-: 70% - 72.9%	C: 73% - 76.9%	D+: 67% - 69.9%
D-: 60% - 62.9%	D: 63% - 66.9%	
E: < 60%		

## Homework:

Assignments will be accepted up to the established time. Any Assignment turned in after the deadline will be graded at 75% of the original credit at one day late, 50% at two days, and 25% at three days. Any assignment turned in more than three days 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.

## Quizzes:

Quizzes must be done on time since they are available online and can be submitted anytime after they are available and up until they are due.

## Participation:

Participation is mandatory. Class discussions, Guest lectures, and other activities will be announced in advance so it will be your responsibility to get permission ahead of time for an absence if you will not be available.

Students are expected to act with integrity and composure at all times and there will be zero tolerance for unbecoming conduct which includes, but is not restricted to rude comments and disruptive behavior.

## Attendance Policy:

I will be taking attendance for all scheduled events. Additionally I will periodically be taking attendance during regular class times. The record of attendance will count as half of the participation portion of your grade (10% of final grade) in the in-person sections.

## Honor Code:

Be aware of the Honor System of University of Florida. All students in this course are subject to the requirements of the University of Florida's Honor Code. Although joint work on assignments may be acceptable in some cases, duplication of an assignment either manually or electronically will be dealt with as an act of academic dishonesty. We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

## Remedies:

Students who fail to comply with the listed behavior will be excused from the class and advised to seek readmission through the School's Director of Undergraduate Studies.

## 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 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.

## Topical Outline:

Module	Assessment
Start Here Section/Course Introduction	-
Materials	Quiz
Module 1: Sustainability	Quiz
Module 2: Metals	Quiz
Module 3: Wood	Quiz
Module 4: Asphalt	Quiz
Module 5: Concrete	Quiz
Module 6: Masonry	Quiz
Module 7: Moisture	Quiz
Module 8: Flooring	Quiz
Module 9: Carpet	Quiz
Module 10: Gypsum	Quiz
Module 11: Paint	Quiz
Module 12: Glass and Plastic	Quiz

Homework assignments will also be posted to the Canvas Modules and the Syllabus pages throughout the course.