

California State University East Bay

Division of Continuing and International Education

Construction Methods & Materials
EXSP 8767 KA - 3 Units
Summer, 2009
Mondays 6:30 – 9:30 PM

Instructor: Peter Furst
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Prerequisites: Understanding of construction means & methods.

Course Description/ Requirements

This course is intended to be a survey course that provides an overview of building methods and materials. We will address issues and concerns in building performance and building construction, both of which are affected by building materials.

To better understand performance and failure issues, we will review the nature of building materials and gain an insight into why they fail, as well as tolerances in standards and design. A better understanding of these issues will enable us to operate more effectively in the construction process and produce a higher quality final product.

Learning Objectives:

By the end of this course, students will demonstrate:

1. Greater understanding of the physical attributes of building material and their impact on quality, durability and workability.
2. Appreciation of the interactions of different building materials in relation to their use.
3. Understanding of design & detailing as well as contractor means and methods on materials.

Text

Allen, Edward, & Iano, Joseph, *Fundamentals of Building Construction Materials and Methods*, 5thed. (2009). Published by John Wiley & Sons Inc.

A. Course Outline & Reading Assignments

<u>Session</u>	<u>Title</u>	<u>Date</u>	
	<u>Chapter</u>		
1.	Introduction	6/22	-----
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2.	Site & Foundations	7/6	Ch 1 - 2
3.	Wood Construction	7/13	Ch 3 - 5
4.	Brick & Stone Masonry	7/20	Ch 8 -
	10		
5.	Structural Frames	7/27	Ch 11 -
	12		
6.	(MID TERM – TEST – Ch 1-12) - Roofing, Doors & Windows	8/3	Ch 16 -
	18		

7. Concrete 15		8/17	Ch 13 -
8. Building Exterior 21 +6		8/24	Ch 19 -
9. Building Interior - 24 +7		8/31	Ch 22
10. FINAL Exam -	(Submit project)	9/15	-----

B. Method of instruction & Evaluation (please elaborate more; see example below)

1. Instruction

- a. Lecture
- b. Class work
- c. Handouts

The format of the class varies, and may include didactic lectures, class discussion, films, case material, small group participation, and experiential exercises. Class participation is particularly important, and is required in order to complete this class successfully. Ethical/professional behavior is of prime importance for dealing with sensitive materials, and for creating an atmosphere conducive to students freely interacting with each other. Required readings should be read before each class period. Class time will not be used to extensively review required reading, but will build upon it with other relevant discussions and information.

2. Grading

a. Class attendance & participation	10 %
b. Quizzes	20 %
c. Project	20 %
d. Mid Term	20 %
e. Final	<u>30 %</u>
	100%

90 - 100% of total points = A

80 - 89% of total points = B

70 - 79% of total points = C

60 - 69% of total points = D

< 60% of total points = F

You must achieve 70% of the total points available to pass the class

1. Testing and quiz schedule

Quizzes - will be unscheduled and based on the reading assignments read in preparation for that evening's class. Quizzes can only be made up before the following class session – you must call me and make arrangements to take the make-up quiz!

2. Attendance

Class attendance and participation accounts for 10% of your grade. If you have a problem attending on test dates – you must let me know and make alternate arrangements!

Some of the lecture material is related to the reading material and will amplify it, so it is important that you attend class. Attendance counts as 10% of your grade. **If you can not come** – you must call and let me know e-mail peter.furst@gmail.com for an excused absence.

3. Project

1. Select a relevant topic that is of interest or useful to your work. You must secure prior approval of your topic from the professor.
2. Submit outline.
3. Five-page typed report on topic (include copies of all reference materials, website addresses, or any other source (must accompany final submission)).