Construction Methods & Materials (CNBT 1311)

Credit: 3 semester credit hours (2 hours lecture, 3 hours lab)

Prerequisite/Co-requisite: None

Course Description

Introduction to construction materials and methods and their applications.

Required Textbook and Materials

1. *Construction Technology Trainee Guide* by NCCER.
2. ISBN number is 9780136099512

Course Objectives

Upon completion of this course, the student will be able to:

1. Identify construction materials and list their applications and identify and compare the various methods of construction
2. (SCANS C5.2, C6.4, C7.3, C9.3, C10.1, C14.5, C20.3, F1.3, F2.6, F4.3, F7.5, F9.4, F11.2, F12.3)
3. Successfully interpret written material about construction.
4. (SCANS C5.2, C6.4, C7.3, C9.3, C10.1, C14.5, C20.3, F1.3, F2.6, F4.3, F7.5, F9.4, F11.2, F12.3)
5. Dress and conduct self in a safe and appropriate manner which would be acceptable in a work environment.
6. (SCANS C5.2, C6.4, C7.3, C9.3, C10.1, C14.5, C20.3, F1.3, F2.6, F4.3, F7.5, F9.4, F11.2, F12.3)
7. Demonstrate adaptability by collaborating and planning a project with others.
8. SCANS (C6.3, C7.4, C9.3, F13.2, F14.2, F15.4, F16.5, F17.5)
9. Demonstrate the ability to collect technical data from manuals and the ability to collect technical data from the Internet.
10. SCANS (C6.3, C7.4, C9.3, F13.2, F14.2, F15.4, F16.5, F17.5)

SCANS Skills and Competencies

Beginning in the late 1980's, the U.S. Department of Labor **S**ecretary's **C**ommission on **A**chieving **N**ecessary **S**kills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in *What Work Requires in Schools.* In its research, the Commission determined that "workplace know-how" consists of two elements: foundation skills and workplace competencies.

CNBT 1311
Course Syllabi

Course Outline

A. Introduction
   1. Introduction of faculty and students
   2. Review Syllabus
   3. Review Class Policies
   4. Review Unit Assignments
B. Site Layout
   1. Forms
C. Concrete Reinforcing Materials
   1. Rebar
   2. Ground Protection
   3. Mesh
D. Handling and Placing Concrete
   1. Estimating amounts
   2. Concrete tools
   3. Types of Concrete
E. Floor Systems
   1. Slab
   2. Concrete
   3. Wood
   4. Material
F. Wall and Ceiling Systems
   1. Sheetrock
   2. Panels
   3. Drop
G. Doors and Windows
   1. Door Types
   2. Window Types
H. Roofing Applications
   1. Roll
   2. Shingle
   3. Tile
   4. Metal
I. Exterior Finishing
   1. Wood
   2. Masonry

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

Activity	***Percentage***
Unit Exercises & Projects	95%
Participation	5%

Late Penalties are zeros for all late work.

Course Requirements

1. Read Unit information & Handouts.
2. Show up for classes and listen to lectures.
3. Answer exercise questions at the end of each unit.
4. Do Exercises & Projects as assigned.

Attendance Policy

1. Missing more than 20% of classes will result in an automatic “F” for the course.

Approved 11/2010

2. Five absences allowed without penalty. One percentage point taken off final grade average per absence thereafter up to 5% for lack of participation! (Instructors discretion)
3. Late more than 15 minutes equals one absence!
4. Being tardy 3 times equals 1 absence.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Course Schedule

Week	Topic	Reference
1	Introduction and policies • Lecture • Lab: Unit 1 Exercises • Projects	Handouts & Workbook
2	Site Layout • Lecture • Lab: Exercises	Chapter 1
3	Site Layout Continued • Lab: Exercises	Chapter 1
4	Concrete Reinforcing • Lecture • Lab: Exercises	Chapter 2
5	Concrete Reinforcing Continued • Lab: Exercises	Chapter 2
6	Handling and Placing Concrete • Lecture • Lab: Exercises	Chapter 3
7	Handling and Placing Concrete Cont'd • Lecture • Lab: Exercises	Chapter 3
8	Floor Systems • Lecture • Lab: Exercises	Chapter 5
9	Wall Systems • Lecture • Lab: Units 18, 19,	Chapter 6
10	Ceiling Systems • Lecture	Chapter 7

Week	Topic	Reference
	• Lab: Exercises	
11	Doors • Lecture: • Lab: Exercises	Chapter 8
12	Windows • Lecture: • Lab: Exercise	Chapter 8
13	Roofing Applications • Lecture • Lab: Exercise	Chapter 9
14	Roofing Applications Cont'd • Lecture • Lab: Exercise	Chapter 9
15	Exterior Finishing • Lecture • Lab: Exercises	Chapter 10

SIGNOFF SHEET

I have read and understand the “Syllabus for Courses PFPB 1405-01

Student’s signature: _____

Printed name: _____