



# CNBT 1411 CONSTRUCTION METHODS AND MATERIALS

## COURSE OUTLINE AND SYLLABUS

CNBT 1411 is designed to familiarize the beginning student with the Methods, Materials and Tools of the Building Construction Industry.

There are 4 major topic areas of study in this course:

1. Construction Management---Math, Measurement, Site Surveying, Building Layout, Blueprint Reading, and General Contracting, Construction Language and Terminology.
2. Concrete and Masonry---Cement, Aggregates, Soils, Stresses, Construction Joints, Hydration, Site Layout, Dirt Work, Placing Steel Reinforcement, Mixing, and Placing and Finishing Concrete. Mortar, Brick, Stone, and Stucco, w/emphasis on Color, Texture, and Form. Concrete Language and Terminology, and Tools.
3. Carpentry---Floor, Wall, And Roof Framing Members, Door and Window Openings, Pier and Beam Construction, Tools of the Carpenter, Rafter and Stair Layout, and a Rough Carpentry Project (Group Project), Carpentry Language and Terminology.
4. Cabinetry and Furniture Construction---Woodworking, Hand Tools, Portable Power Tools, Stationary Power Tools, Plywood, Softwoods, Hardwoods, Joinery, Lumber Grading, Individual Cabinetry and Furniture Projects.

### TIME LINES

Each of the above areas are 20 hrs in length, which in the Fall and Spring equate to 4 class periods, and in the Summer equate to 4.5 class periods.

### LAB VS LECTURE

The learning activities are 80% hands-on, with theory and classroom study at 20%.



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### SAFETY

Construction Safety is a major concern and all activities are conducted with students wearing their own personal protective equipment which they purchase. The required equipment includes protective eyewear. Ear protection, dust protection, hard hat, steel toed boots, and gloves are optional equipment.

### TOOLS

Students are required to have some [tools](#). The main tools are a pencil, a calculator, a hammer, a measuring tape, and some type of square (a speed square or a framing square, or a combination square). All these will be demonstrated so the student can make a decision based on their individual need.

### GRADES

Grades are based on attendance, a take home mid-term, and performance.

1. Attendance-----10%
2. Mid-Term-----20%
3. Performance-----70%