

SOUTHEAST COMMUNITY COLLEGE
CONSTRUCTION MANUFACTURING AND TECHNOLOGY DIVISION
Building Construction Technology Program
Revision Date: August 22, 2022

I. CATALOG DESCRIPTION

Course Number: CNST1152
Course Title: Concrete Construction Applications
Prerequisite(s): None
Co-requisite(s): CNST1151
Catalog Description: Laboratory application in safety habits and proper use of concrete tools and materials. Experience in site preparation, concrete forming, reinforcing, and finishing.
Credit Hours: 4
Class Hours: 0
Lab Hours: 180
Total Contact Hours: 180

II. COURSE OBJECTIVES: *Course will:*

- A. Identify tools used, types of forms and equipment.
- B. Layout a site for small residential concrete slab.
- C. Select, place, finish, and reinforce concrete for sidewalks, slabs, and footings.
- D. Simulate on-the-job training in concrete construction.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

- A. Student Learning Outcomes: *Student will be able to:*
 - 1. Demonstrate quality of performance in concrete preparation, forming, placing , and finishing projects
- B. General Education Learning Outcomes (GELOs)
 - 1. GELO #3: Critical Thinking & Problem Solving
Outcome 1: Collect, identify, interpret and analyze data.

IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information*)

- A. Concrete mixing
 - 1. Operation, proportions, consistency, machine mixing, hand mixing
- B. Site layout
 - 1. Batter boards, squaring procedures – builder’s level, 6-8-10 method, diagonal method, square root process
- C. On-the-job training
 - 1. Concrete
- D. Concrete Projects
 - 1. Preparing subgrade, forming, form prep
- E. Concrete construction
 - 1. Mixes, admixtures, placing, troweling, finishes
- F. Tours
 - 1. Construction site, Quarry, Batch plant

V. INSTRUCTIONAL MATERIALS

- A. Supplies/Tools required by the Building Construction Program:
 - 1. Safety glasses
 - 2. Hard hats
 - 3. Work Boots
 - 4. Student Tool Kit

VI. METHODS OF PRESENTATION/INSTRUCTION

- A. Methods of presentation typically include a combination of the following:
 - 1. Hands-on lab projects
 - 2. Lab demonstrations
 - 3. Lab assistance
 - 4. Speaker(s)
 - 5. Field Trip(s)
 - 6. Instructional handouts

VII. METHODS OF EVALUATION

- A. Methods of evaluation, although determined by the individual instructor, traditionally includes a combination of the following:
 - 1. Projects (84% of final grade)
 - a. Due dates are provided with assignment
 - b. Complete projects on time
 - c. Points are deducted if a project is late
 - 2. Lab Evaluation (16%)
 - a. Time management (20% of lab evaluation)
 - b. Speed and accuracy (20%)
 - c. Work habits and safety practices (10%)
 - d. Initiative and leadership (15%)
 - e. Application of theory and concepts (20%)
 - f. Attitude, cooperation, and teamwork (15%)
 - 3. Evaluation will be based on the number of points earned from the total points possible.

VIII. SPECIFIC COURSE REQUIREMENTS

- A. Student must meet all of the following to receive a passing grade:
 - 1. Achieve a passing grade of “C” (70%) or higher, based on SCC grading scale.
 - 2. Submit own work. Students turning in homework, reports, field notes, or calculations by someone other than themselves will receive 0% and be referred to the Division Dean and Dean of Students for further disciplinary action. Consequences can include failing the course.
 - 3. Demonstrate attitude, skills, and character commensurate with industry standards.