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

I. CATALOG DESCRIPTION

Course Number:	CNST1162
Course Title:	Advanced Concrete Construction Applications
Prerequisite(s):	CNST1152
Co-requisite(s):	CNST1161
Catalog Description:	Laboratory application in advanced concrete construction process such as Tilt-up, Paving, Architectural Finishes, Superflat floors, surface treatments, and trouble shooting and repair.
Credit Hours:	2
Class Hours:	0
Lab Hours:	90
Total Contact Hours:	90

II. COURSE OBJECTIVES: *Course will:*

- **A.** Estimate volume of concrete needed for projects.
- **B.** Properly demonstrate forming of tilt-up panels.
- **C.** Properly apply self-leveling toppings and sealants.
- **D.** Create various textured and decorative surfaces.
- **E.** Properly demonstrate various concrete testing procedures.
- **F.** 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 architectural finishes
  - **2.** Demonstrate proficiency in ACI Field testing technician 1
  - **3.** Place, finish and reinforce concrete paving.
- **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.** Slab layout
  - **1.** Establish elevations, prepare subgrade, reinforcement, and placement preparation
- **B.** Concrete Projects
  - **1.** Form and pour countertops
  - **2.** Exposed aggregate
  - **3.** Stamped Concrete
  - **4.** Decorative coating
- **C.** Field Trips
  - **1.** Site visits

V. INSTRUCTIONAL MATERIALS

- **A.** Required Text(s): Pearson, *Concrete Construction Level 1 and Level 2,* (Refer to CID and/or instructor for current edition)
- **B.** Supplies/Tools required by the Building Construction Program:

1. Safety glasses
2. Hard hats
3. Work Boots

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.