

**SOUTHEAST COMMUNITY COLLEGE**  
**ADVANCED TECHNOLOGIES & SKILLED TRADES DIVISION**  
**Building Construction Technology Program**  
**Revision Date: November 2025**

**I. CATALOG DESCRIPTION**

Course Number: CNST2636  
Course Title: Estimating II  
Prerequisite(s): CNST1328 or by Permission  
Catalog Description: This course introduces students to construction estimating methods for a variety of building systems, including foundations, masonry, structural steel, wood, and moisture protection. Students will learn to identify and define estimating techniques, as well as types of doors, windows, and frames. Emphasis is placed on developing accurate material lists for concrete, masonry, and other plan items using industry-standard formulas and methods. By the end of the course, students will be able to apply estimating skills to support construction planning and material management.

Credit Hours: 4  
Class Hours: 45  
Lab Hours: 45  
Total Contact Hours: 90

**II. COURSE OBJECTIVES:** *Course will:*

- A. List and define estimating methods used for foundations including formwork, reinforcing and flat concrete work.
- B. List and define estimating methods used for masonry materials and structural steel.
- C. List and define estimating methods used for wood construction.
- D. List and define estimating methods used for moisture protection construction.
- E. List and identify types of doors and windows and their frames.
- F. Demonstrate how to write a material list for the foundation such as concrete and concrete accessories using estimating formulas and methods.
- G. Demonstrate how to write a material list for any masonry construction or other plan items using estimating formulas and methods.

**III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:**

- A. Student Learning Outcomes: *Student will be able to:*
  - 1. Interpret R.S. Means Estimating system.
  - 2. Analyze commercial plans and create a list of materials to be estimated.
  - 3. Calculate and complete the R. S. Means quantity form and cost form from a material list.
- B. General Education Learning Outcomes (GELOs)
  - 1. GELO #3: Critical Thinking & Problem Solving  
Outcome 2: Synthesize information to arrive at reasoned solutions to problems.

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

- A. Introduction to Commercial Estimating
  - 1. Types of estimates, R.S. Means estimating system, unit-price estimating, general rules and procedures

- B.** Foundations and Concrete
  - 1. Structural excavation and backfill, formwork, reinforcing steel, cast in place concrete, finish, precast or cementitious concrete
- C.** Masonry
  - 1. Concrete, brick, stone, mortar
- D.** Structural Steel
  - 1. Structural metals, metal joists and decking, ornamental and miscellaneous metal
- E.** Wood Construction
  - 1. Rough and finish carpentry, laminated construction
- F.** Moisture Protection
  - 1. Waterproofing, insulation, roofing, sheet metal work
- G.** Doors, Windows, and Glass
  - 1. Metal, wood and special doors/frames, metal, wood, and special windows, finish hardware, glass and glazing
- H.** Finishes
  - 1. Drywall, acoustical treatment, flooring, paint and wall covering
- I.** Mechanical and Electrical Systems
  - 1. Plumbing, electrical, heating, ventilation, and air conditioning (HVAC)

## **V. INSTRUCTIONAL MATERIALS**

- A.** Required Text(s): R.S. Means Company, *Open Shop Building Construction Cost Data Book*  
(Refer to CID and/or instructor for current edition)
- B.** Supplies: Calculator, Architect's Scale, Quantity Sheets, and Cost Analysis Sheets

## **VI. METHODS OF PRESENTATION/INSTRUCTION**

- A.** Methods of presentation typically include a combination of the following:
  - 1. Lecture
  - 2. Classroom demonstration
  - 3. Classroom discussion
  - 4. Hands-on lab projects
  - 5. Lab assistance
  - 6. Video presentation
  - 7. PowerPoint presentations
  - 8. Speaker(s)
  - 9. Field Trip(s)
  - 10. Instructional handouts

## **VII. METHODS OF EVALUATION**

- A.** Methods of evaluation, although determined by the individual instructor, traditionally includes a combination of the following:
  - 1. Assignments
    - a. Due dates are provided with assignment
    - b. Complete projects on time
    - c. Points are deducted if a project is late
  - 2. Estimates Grade
    - a. Completeness
    - b. Accuracy
      - 1. Correct units, quantities, descriptions, pricing
    - c. Correct formats
      - 1. Line numbers, procedural standards

## **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.
  - 4.** All program policies of the Building Construction Technology program will be strictly enforced.
  - 5.** Intentional damage to college property will not be tolerated and may result in punitive action, such as being removed from the program.
  - 6.** All cell phones will be turned off during class/lab time. If this becomes a problem, the instructor may consider the delinquent student absent.