SOUTHEAST COMMUNITY COLLEGE
CONSTRUCTION MANUFACTURING AND TECHNOLOGY DIVISION
Building Construction Technology Program
Revision Date: August 26, 2019

I. CATALOG DESCRIPTION

Course Number:	CNST1228
Course Title:	Construction Processes and Practices I
Prerequisite(s):	None
Corequisite(s):	CNST1226
Catalog Description:	Introduction to hand tools, construction safety, machine woodworking, modern practices, and processes used in the building construction industry. Carpentry techniques, competency in blueprint reading, proper layout practices, parts cutting and assembly procedures.
Credit Hours:	1.5
Class Hours:	0
Lab Hours:	68
Total Contact Hours:	68

II. COURSE OBJECTIVES: *Course will:*

A. Identify tools and materials common to the construction trades.
B. Safely operate hand and power tools and power machines.
C. Interpret a working drawing.
D. Layout and plan a job according to a working drawing.
E. Work with a variety of construction materials.
F. Complete a variety of construction processes and assemblies.
G. Evaluate a variety of projects.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. Student Learning Outcomes: *Student will be able to:*
- **1.** Select the correct tool for the construction job.
- **2.** Properly operate power tools and machines safely.
- **3.** Hang drywall, tape drywall, and finish drywall according to industry standards.

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. Tool Preparation
B. Special Demonstrations
- **1.** Hand & power tools, cutting large panels, wood identification, plastic laminate, floor joists, wall stud, and rafter layouts

C. Hand Tool Projects
- **1.** End Lap Joint
- **2.** Dovetail Lap Joint
- **3.** Open Mortise & Tenon
- **4.** Mortising a hinge

D. Power Tool Projects
- **1.** Octagon
- **2.** Lock Mortising

3. Plastic Laminate
4. Large saw horses
5. Small saw horses

V. INSTRUCTIONAL MATERIALS

A. Required Text(s): None

B. Supplies/Tools required by the Building Construction Program:

1. Safety glasses. Must meet Z87 specs
2. Work boots, leather, optional steel toe Z41
3. Hard hat, OSHA approved for construction
4. Construction Master calculator, Model 4065 v3.1 or 3.0
5. Carpenter level, 24" to 30"
6. Steel tape measure 12' to 25'
7. Hearing protection
8. Jump drive storage device, 1GB min.
9. Hammer, 16 oz. Plumb OAN 11½
10. Combination Square, Stanley #122, not plastic
11. Framing square, Stanley R100B Must have octagon scale, rafter table, essex bd measure, brace table
12. Coping Saw-Stanley #39-106, 6¾"
13. Block Plane, Low angle, Stanley #60 or Bailey 12-960
14. Chisels (4)- Stanley #64-¼", ½", ¾", 1"
15. Scratch Awl-Stanley 100 Plus
16. Oilston, Large Carborumdum, reversible
17. Nail sets (3)- 1/32", 2/32", 3/32"
18. Putty Knife-Stanley #1540
19. Panel/utility knife-Retractable with extra blades
20. Chalk box, 100' –Irwin #125
21. Scriber/Compass
22. T-bevel, sliding-Stanley #H1225, plastic or wood handle
23. Screwdrivers-Phillips #1 & #2 square #2, Straight ¼"
24. Nail apron or web belt with pouches
25. Drill bit set-(1/16", 5/32", 3/32", 1/8", 3/16", ¼") min.
26. ⅜" Drill, variable speed, forward/reverse, electric or battery
27. Screwdriver bit set for ⅜" drill. Include #1 & #2 Phillips, #25 Torx, #2 square bit & straight
28. Architect Scale
29. Square gauges-1 pair
30. Needle nose pliers
31. Drywall knives 4" & 6" (not plastic)
32. Pliers, vise-grip or side cutters
33. Pocket plane Stanley Surform/Drywall rasp
34. Drafting template-Timely, Hex T-41
35. Erasing shield
36. Drafting template-Timely T-30
37. Drafting template 977101 Circle template
38. Drafting template – Timely Plumbing T-36

39. 25’ Extension cord with optional multiple ends, GFCI 12-3 or 14-3 wire
40. Flat pry bar-Wonderbar or Superbar
41. Cats claw, cats paw, sheep claw
42. Sanding block, Wood, rubber or plastic
43. VIX bits-#5 and #9
44. Combination countersink bit-1¼” x #8
45. Speedbor Wood bits-Set of 6 (⅜”-1”)
46. Paper shop towels
47. Router bit ¼” shank, ½” straight cut
48. Router bit ¼” shank 45 degree chamfer with bearing guide
49. Router bit ¼” shank Flush cut laminate bit with bearing guide
50. Router bit ¼” shank ¼” round over with bearing guide

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:
1. Lab demonstration
2. Lab assistance
3. Speaker(s)
4. Field Trip(s)
5. 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 (80% of final grade)
2. Lab Performance Evaluation (20%)
a. Problem solving and decision making (40% of lab performance evaluation)
b. Initiative and leadership (20%)
c. Work ethic, organization, and time management (20%)
d. Speed and accuracy (20%)

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.