Florida Department of Education
Curriculum Framework

Program Title: **Carpentry**
Program Type: **Career Preparatory**
Career Cluster: **Architecture & Construction**

Career Certificate Program		
Program Number	C510300	
CIP Number	0646020117	
Grade Level	30, 31	
Program Length	1200 Hours	
Teacher Certification	Refer to the **Program Structure** section.	
CTSO	SkillsUSA	
SOC Codes (all applicable)	Please see the CIP to SOC Crosswalk located at the link below.	
CTE Program Resources	http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/program-resources.stml	
Basic Skills Level	Computations (Mathematics): 9	Communications (Reading and Language Arts): 9

Purpose

The purpose of this postsecondary program is to prepare students for employment in the carpentry industry with an emphasis on learning fundamental carpentry skills.

This program prepares students to become carpenters that can construct, erect, install, and repair structures and fixtures made from wood and other materials. Typically, they specialize in new-home, apartment, condominium, and multi-family construction, and/or commercial buildings and structures, and remodeling. As part of a single job, they might build and set forms for footings, walls, and slabs, and frame and finish exterior and interior walls, roofs, and decks. They also build stairs, install drywall; interior trim and doors; windows; cabinets; exterior siding and trim; roofing materials, and build indoor and outdoor furniture and other structures. Often, they install finish flooring and interior wall finishes. Fully trained construction carpenters can easily switch from new construction to remodeling, and with enough construction experience become a specialty sub-contractor, or residential/building contractor.

The content includes but is not limited to developing rough and finish carpentry skills.

Additional Information relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

Program Structure

This program is a planned sequence of instruction consisting of four occupational completion points.

This program is comprised of courses which have been assigned course numbers in the SCNS (Statewide Course Numbering System) in accordance with Section 1007.24 (1), F.S. Career and Technical credit shall be awarded to the student on a transcript in accordance with Section 1001.44(3)(b), F.S.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the postsecondary program structure:

OCP	Course Number	Course Title	Teacher Certification	Length
A	BCV0112	Introduction to Carpentry	CAB WOODWK @7 7G CARPENTRY @7 7G BLDG CONST @7 7G TEC CONSTR @7 7G	150 Hours
B	BCV0122	Rough Framing Carpentry (formerly 'Carpenter, Rough')		450 Hours
C	BCV0125	Finish Trim Carpentry		450 Hours
D	BCV0123	Foundation and Form Carpentry		150 Hours

Common Career Technical Core – Career Ready Practices

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.

2. Apply appropriate academic and technical skills.

3. Attend to personal health and financial well-being.

4. Communicate clearly, effectively and with reason.

5. Consider the environmental, social and economic impacts of decisions.

6. Demonstrate creativity and innovation.

7. Employ valid and reliable research strategies.

8. Utilize critical thinking to make sense of problems and persevere in solving them.

9. Model integrity, ethical leadership and effective management.

10. Plan education and career path aligned to personal goals.

11. Use technology to enhance productivity.

12. Work productively in teams while using cultural/global competence.

Standards

After successfully completing this program, the student will be able to perform the following:

01.0 Apply shop and construction site safety skills.
02.0 Select, use and maintain hand tools, power tools and stationary equipment.
03.0 Apply mathematics knowledge to assist in constructing buildings, structures, and various construction and woodworking related projects.
04.0 Read, understand and create basic construction and shop drawings and/or sketches.
05.0 Select and recommend appropriate building materials for building and woodworking projects.
06.0 Select and use appropriate fasteners and hardware for specific construction and woodworking applications.
07.0 Set up and install basic rigging and scaffolding.
08.0 Identify ways that sustainable design and construction strategies impact the built environment (Optional).
09.0 Explain the importance of employability and entrepreneurship skills (Optional).
10.0 Perform site-preparation and building layout activities.
11.0 Understand how to layout and/or construct a building foundation.
12.0 Layout, cut and install framing members for a floor system (wood and/or metal).
13.0 Layout, cut and install a wall framing system (wood and/or metal).
14.0 Comply with current hurricane building codes.
15.0 Layout, cut and install a wood frame roof system.
16.0 Frame walls using cold-formed steel (Optional).
17.0 Lay out, cut and rough frame a stair system.
18.0 Identify, select and install various roofing materials for building structures.
19.0 Identify and apply appropriate thermal boundary, moisture protection and water management systems.
20.0 Install windows and exterior doors.
21.0 Install gypsum drywall.
22.0 Identify and fasten wood stock and joints.
23.0 Install cabinets and components.
24.0 Identify, interpret and describe types of interior and exterior doors types, hardware and assembly component requirements, and installation techniques based on plans and specifications.
25.0 Install interior trim and other finishes based on construction drawings, details and specifications.
26.0 Identify and install various types of interior wall and ceiling finish materials.
27.0 Layout, cut and finish a stair system.
28.0 Select and install exterior finishes.
29.0 Demonstrate building site layout to excavate for footings and foundations, and (Optional) trenching for utilities.
30.0 Erect, plumb and brace simple concrete forms with reinforcement.
31.0 Explain or identify various foundation forms.
32.0 Demonstrate an understanding of vertical concrete formwork.
33.0 Demonstrate an understanding of constructing horizontal formwork.
34.0 Explain and demonstrate how to place reinforcing bars in walls, columns, beams, girders, joists and slabs.
35.0 Discuss the transport and placement of concrete.

36.0 **Florida Department of Education**
37.0 **Student Performance Standards**
38.0
39.0 **Program Title: Carpentry**
40.0 **Career Certificate Program Number: C510300**
41.0
42.0 **Course Number: BCV0112**
43.0 **Occupational Completion Point: A**
44.0 **Introduction to Carpentry –150 Hours**

01.0	Apply shop and construction site safety skills. The student will be able to:	
	01.01	Maintain a clean, orderly and safe work area.
	01.02	Transport, handle and store materials safely (e.g. forklifts, pallet jacks, etc.).
	01.03	Demonstrate proper inspection and operation techniques of any heavy equipment necessary for material handling and excavation on the construction site. (Optional)
	01.04	Operate a fire extinguisher.
	01.05	Qualify in basic first-aid procedures and (Optional) obtain CPR/FA/AED 2 year certification.
	01.06	Know how to identify and report safety hazards and (Optional) be able to fill out and report a sample Accident Report to the supervisor.
	01.07	Demonstrate the inspection, proper use, inspection and care of personal protective equipment (PPE).
	01.08	Describe "Right-to-Know" Law as recorded in (29 CFR-1910.1200).
	01.09	Explain the purpose of the Occupational Safety and Health Administration (OSHA) and obtain an OSHA-10 Safety Certification.
	01.10	Use Safety Data Sheets (SDS) to recognize health-related problems that may result from exposure to hazardous materials and chemicals.
	01.11	Describe the proper procedures for handling hazardous materials.
	01.12	Explain the importance of complying with the Americans with Disabilities Act (ADA) requirements.
02.0	Select, use and maintain hand tools, power tools and stationary equipment. The student will be able to:	
	02.01	Read and demonstrate proficiency with carpenter's measuring tools.
	02.02	Identify, select and safely use various hand tools.
	02.03	Identify, select and safely use hand held power tools and stationary equipment.

	02.04 Properly maintain hand tools, power tools and stationary equipment and learn about the maintenance of them.
03.0	Apply mathematics knowledge to assist in constructing buildings, structures, and various construction and woodworking related projects. The student will be able to:
	03.01 Apply geometry and algebra to solve construction related math problems.
	03.02 Use arithmetic to assist in constructing buildings, structures and woodworking projects.
	03.03 Use mathematics to solve distance, elevation, perimeter, area and volume problems.
04.0	Read, understand and create basic construction and shop drawings and/or sketches. The student will be able to:
	04.01 Identify basic construction and shop drawings, drawing terms, components and symbols.
	04.02 Interpret and apply information found on construction drawings and in specifications to assist in construction and woodworking projects.
	04.03 Recognize the different types of construction drawings.
	04.04 Use an architectural scale to determine and verify construction drawing dimensions.
	04.05 Identify, describe and state the purpose of the parts of written specifications.
	04.06 Conduct quantity takeoffs for estimating materials.
	04.07 Interpret and understand scopes of work for construction guidelines.
	04.08 Draw and/or sketch basic floor plans and/or shop drawings and elevations.
05.0	Select and recommend appropriate building materials for building and woodworking projects. The student will be able to:
	05.01 Identify the grades and species of lumber and their appropriate uses.
	05.02 Identify the actual and nominal sizes of lumber.
	05.03 Identify the grades of plywood and wood products and their uses.
	05.04 Identify defects and blemishes that affect the durability, strength and use of lumber.
	05.05 Determine how to locate and mark crowned, bowed or cupped framing lumber and how to cull it for use.
	05.06 Explain the effects of temperature differences, chemical reaction and moisture content on building materials.
	05.07 Explain and identity the uses of various types of engineered lumber.
06.0	Select and use appropriate fasteners and hardware for specific construction and woodworking applications. The student will be able to:

	06.01 Identify and use fasteners and their appropriate applications commonly used in carpentry and/or cabinetmaking.
	06.02 Identify and use hardware and their appropriate applications commonly used in carpentry and/or cabinetmaking.
07.0	Set up and install basic rigging and scaffolding. The student will be able to:
	07.01 Identify and use rigging equipment.
	07.02 Inspect rigging equipment, following safety precautions.
	07.03 Estimate size, weight and center of the load.
	07.04 Use rigging methods to safely move materials and equipment.
	07.05 Correctly and safely assemble, inspect and disassemble scaffolding.
	07.06 Inspect and safely use various types of ladders and scaffolding.
08.0	Identify ways that sustainable design and construction strategies impact the built environment. (Optional) The student will be able to:
	08.01 Describe how sustainability practices impact the construction industry on the natural environment.
	08.02 Describe the life cycle phases of a building and its impacts on the environment throughout the life of the building.
	08.03 Recommend sustainable alternative carpentry practices as opposed to conventional carpentry practices.
	08.04 Identify specific practices that can lessen adverse impacts on the environment.
09.0	Explain the importance of employability and entrepreneurship skills. (Optional) The student will be able to:
	09.01 Identify and demonstrate positive work behaviors needed to be employable.
	09.02 Develop personal career plan that includes goals, objectives and strategies.
	09.03 Examine licensing, certification and industry credentialing requirements.
	09.04 Maintain an updated resume and a portfolio to document work knowledge, skills and experience.
	09.05 Evaluate and compare employment opportunities that match career path goals.
	09.06 Identify and exhibit traits for retaining employment.
	09.07 Identify opportunities and research requirements for career advancement.
	09.08 Research the benefits of ongoing professional development and education.

	09.09 Examine and describe entrepreneurship opportunities as a career planning option.

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46.0	**Course Number: BCV0122**
47.0	**Occupational Completion Point: B**
48.0	**Rough Framing Carpentry – 450 Hours**
10.0	Perform site-preparation and building layout activities. The student will be able to:
	10.01 Identify building layout dimensions and elevations from plans and specifications using math skills.
	10.02 Use a transit, a builder's level and laser level.
	10.03 Erect batter boards and locate building lines.
	10.04 Locate building line points on batter boards using a builder's level and measuring instruments.
	10.05 Locate building lines on a site plan.
	10.06 Square a building, using the 3-4-5-triangle method and the diagonal (Pythagorean Theorem) method.
11.0	Understand how to layout and/or construct a building foundation. The student will be able to:
	11.01 Establish building and final grade elevations.
	11.02 Identify various types of footings and foundations.
	11.03 Identify various footing requirements used to support different types of foundations.
	11.04 Identify and select appropriate footing and foundation construction details for a specified building plan.
	11.05 Install flashing, foundation anchors and connectors, and termite shields.
	11.06 Understand and/or apply proper moisture management details for foundations, if required.
	11.07 Layout and construct a building foundation. (Optional)
12.0	Layout, cut and install framing members for a floor system (wood and/or metal). The student will be able to:
	12.01 Identify floor framing members including the subfloor.
	12.02 Identify structural support components for floor framing systems (e.g., sill plates, columns, girder beams, etc.).
	12.03 Identify various floor joist types, sizes and openings, including joists for a cantilevered floor.
	12.04 Identify various types of bridging.

	12.05 Identify various subfloor materials and fastening techniques.
	12.06 Layout, cut and install framing members for a floor system.
13.0	Layout, cut and install a wall framing system (wood and/or metal). The student will be able to:
	13.01 Identify framing members used in wall and partition construction.
	13.02 Lay out wall lines and partition locations on a floor.
	13.03 Lay out walls for studs, doors and windows.
	13.04 Identify studs, trimmers, cripples, headers, fire stops and other framing components.
	13.05 Layout, cut and build up wall partition intersecting T's, corners and headers.
	13.06 Identify various wall sheathing and/or diagonal bracing systems used in exterior walls.
	13.07 Identify and describe various insulation materials, moisture and air barrier materials and systems.
	13.08 Cut and install framing members for a wall system.
14.0	Comply with current hurricane building codes. The student will be able to:
	14.01 Install hurricane anchors and connectors using approved fasteners.
	14.02 Install hurricane clips using approved fasteners.
	14.03 Explain the purpose and importance of the codes relating to hurricanes.
	14.04 Identify and/or construct braced and structural panel shear wall assemblies.
15.0	Layout, cut and install a wood frame roof system. The student will be able to:
	15.01 Understand the terms associated with roof framing.
	15.02 Identify roof framing members used to construct various roofing types.
	15.03 Calculate the lengths of rafters for various locations.
	15.04 Identify the various types of trusses used in roof framing.
	15.05 Use a rafter framing square, speed square and calculator to lay out a roof system.
	15.06 Identify various types of sheathing used in roof construction.

	15.07 Layout, cut and frame various roof types using conventional framing methods.
	15.08 Understand various truss types and components, and how to correctly install them.
	15.09 Estimate materials needed to frame and sheath a roof.
16.0	Frame walls using cold-formed steel. (Optional) The student will be able to:
	16.01 Identify the components of a steel framing wall system.
	16.02 Identify and select the tools and fasteners used in a steel framing wall system.
	16.03 Identify applications for steel framing wall systems.
	16.04 Demonstrate the ability to build other cold-formed steel wall framing components.
	16.05 Lay out and install a steel stud structural and/or non-structural wall with openings to include bracing and blocking.
17.0	(Optional) Identify, select and install various roofing materials for building structures. The student will be able to:
	17.01 Identify the materials and methods used in roofing.
	17.02 Explain the safety requirements for roofing installation jobs.
	17.03 Install fiberglass/asphalt shingles on various roof types.
	17.04 Install roofing materials correctly in a roof valley.
	17.05 Explain how to make various roof projections watertight when using fiberglass/asphalt shingles.
	17.06 Properly cut and install hip and ridge caps using fiberglass/asphalt shingles.
	17.07 Lay out, cut and install a cricket or saddle.
	17.08 Identify and discuss techniques for installing various types of roofing systems.
	17.09 Install ISO, TPO or PVC commercial roofing.
18.0	Identify and apply appropriate thermal boundary, moisture protection and water management systems. The student will be able to:
	18.01 Identify, select and install various types of insulation material and moister/air barriers.
	18.02 Calculate the required amounts of insulation and moisture/air barriers for a structure.
	18.03 Identify, select, and install materials to provide an effective water management system for a structure.

	18.04 Identify, discuss and/or install moisture, air, and vapor barriers.
	18.05 Describe air infiltration and exfiltration control requirements.
19.0	Install windows and specialty doors The student will be able to:
	19.01 Identify various types of fixed, sliding and swinging windows including sliding, patio and French doors.
	19.02 Identify various materials and techniques used to install a window.
	19.03 Identify the requirements for a proper window installation.
	19.04 (Optional) Install a pre-hung window in accordance with manufacturer's installation instructions.
	19.05 Discuss and/or install various types of locksets.

49.0

50.0	**Course Number: BCV0125**
51.0	**Occupational Completion Point: C**
52.0	**Finish Trim Carpentry – 450 Hours**
20.0	Install gypsum drywall. The student will be able to:
	20.01 Identify the different types of drywall and their uses.
	20.02 Select the type and thickness of drywall required for specific installations.
	20.03 Select fasteners for drywall installation.
	20.04 Perform single-layer and multi-layer drywall installations using different types of fastening systems including nails, drywall screws and adhesives.
	20.05 Install drywall on wood or steel studs.
	20.06 Estimate material quantities for a drywall installation.
21.0	Identify and fasten wood stock and joints. The student will be able to:
	21.01 Identify types of glues, fasteners and clamps and describe their applications.
	21.02 Fasten stock with glue and various types of clamps.
	21.03 Fasten stock and joints with appropriate fasteners such as nails, staples, screws and bolts.
	21.04 Fill and finish nail and screw holes with fillers and plugs.
22.0	Install cabinets and components. The student will be able to:

	22.01 Install hardware such as hinges, catches, pulls, knobs and guides on assembled cabinets.
	22.02 Install fasteners.
	22.03 Install drawers.
	22.04 Install various types of doors including overlay, lipped and flush.
	22.05 Install adjustable shelving.
	22.06 Install specialty hardware such as wire racks and “pull-outs”.
	22.07 Install sliding doors and track.
	22.08 (Optional) Install pre-fabricated cabinets, countertops and other components.
23.0	Identify, interpret and describe types of interior and exterior doors types, hardware and assembly component requirements, and installation techniques based on plans and specifications. The student will be able to:
	23.01 Identify types and parts of door assemblies.
	23.02 Identify various types of door jambs and frames and demonstrate the installation procedures for installing selected door jambs and frames in different types of interior and exterior partitions.
	23.03 Identify different types of interior and exterior door hardware and demonstrate the installation procedures for selected types.
	23.04 Identify different types of interior and exterior doors.
	23.05 Identify the various types of locksets used on exterior doors and explain how they are installed.
	23.06 Discuss and/or install various types of locksets.
	23.07 Read and interpret door schedules.
	23.08 Install exterior and interior doors.
24.0	Install interior trim and other finishes based on construction drawings, details and specifications. The student will be able to:
	24.01 Produce a quantity take-off for interior trim and finish carpentry work.
	24.02 Identify the different types of standard moldings and describe their uses.
	24.03 Make square and miter cuts using a power miter saw.
	24.04 Select and properly use fasteners to install trim.
	24.05 Identify, select and install trim and other finish carpentry work for a project.

	24.06 Identify and select various types of flooring.
25.0	Identify and install various types of interior wall and ceiling finish materials. The student will be able to:
	25.01 Identify and install furring strips.
	25.02 Identify and install drywall and other wall finish materials.
	25.03 Identify and install finish paneling and related trim.
	25.04 Identify various types of ceiling finish materials and systems.
26.0	Layout, cut and complete a stair system. The student will be able to:
	26.01 Identify various types of stair systems.
	26.02 Identify the components of stair systems.
	26.03 Calculate the size and number of treads and risers for a stair system.
	26.04 Lay out, cut and assemble a stair system.
	26.05 Identify the types and methods of finishing stair systems.
	26.06 Identify the components of finishing a stair system.
	26.07 Layout, cut and install the finish components of a stair system.
27.0	Select and install exterior finishes. The student will be able to:
	27.01 Select and install weather resistant barriers and flashing.
	27.02 Install exterior fascia and soffit trim.
	27.03 Produce a quantity takeoff for an exterior cladding system.
	27.04 Identify and install various types of common wood exterior siding systems.
	27.05 Install fiber-cement siding and trim.
	27.06 Identify techniques for installing vinyl and metal siding.
	27.07 Identify techniques for installing stucco and masonry exterior cladding systems.
	27.08 Describe the types and applications of special exterior finish systems.

	27.09 Install one or more types of exterior finishes commonly used in your area.

53.0

54.0	**Course Number: BCV0123**
55.0	**Occupational Completion Point: D**
56.0	**Foundation and Form Carpentry – 150 Hours**
28.0	Demonstrate building site layout to excavate for footings and foundations, and (Optional) trenching for utilities. The student will be able to:
	28.01 Identify the different types, bearing capacities and classifications of soils.
	28.02 Identify ways to increase soil density.
	28.03 Identify strategies and equipment needed to compact loose fill soil for building foundations.
	28.04 Explain the safety considerations for digging trenches and deep excavations.
29.0	Erect, plumb and brace simple concrete forms with reinforcement. The student will be able to:
	29.01 Identify the properties of cement.
	29.02 Describe the composition of concrete.
	29.03 Estimate volumes of concrete.
	29.04 Identify types of concrete reinforcement materials and describe their uses.
	29.05 Identify various types of footings and foundations.
	29.06 Identify the parts of various types of concrete forms.
	29.07 Explain the safety procedures associated with the construction and use of concrete forms.
	29.08 Construct and brace a simple concrete form with reinforcement.
30.0	Explain or identify various foundation forms. The student will be able to:
	30.01 Identify types of foundations.
	30.02 Explain the method for installing pier forms for a foundation.
	30.03 Explain how to strip a form for reuse.
	30.04 Explain edge forms for a floor with or without foundation walls and for a stoop.
	30.05 Explain various types of curb and gutter forms.

	30.06 Identify various types of form systems used to construct elevated concrete slabs, horizontal beams and vertical columns.
	30.07 Discuss the different types and uses of flying forms for decks and shear walls.
	30.08 Understand the consequences of concrete pressure on forms.
	30.09 Identify form work components (e.g., snap ties, wedges, pigs feet, whalers, and stiff-backs, etc.).
31.0	Demonstrate an understanding of vertical concrete formwork. The student will be able to:
	31.01 Explain safety procedures associated with using concrete wall forms.
	31.02 Identify the differences in construction and uses of various types of vertical concrete wall forms.
	31.03 Identify vertical form components.
	31.04 Discuss how to, and/or plumb and brace vertical wall forms.
	31.05 Recognize various types of manufactured forms.
	31.06 Discuss how to, and/or plumb and brace a column form.
	31.07 Discuss how to, and/or plumb and brace a stair form.
	31.08 Identify and explain types of cranes.
	31.09 Construct a small vertical form with reinforcement. (Optional)
32.0	Demonstrate an understanding of constructing horizontal formwork. The student will be able to:
	32.01 Identify the different classes of slabs on grade and flatwork.
	32.02 Identify the safety hazards associated with elevated deck formwork.
	32.03 Identify the different types of elevated decks.
	32.04 Discuss the different types of flying or slip form systems.
	32.05 Describe how to install, plumb, brace and level different types of handset deck form systems.
	32.06 Describe the installation of edge forms, block outs, embedments and construction joints.
	32.07 Identify control, expansion and construction joints.
	32.08 Describe templates, keyways, bulkheads and embedments.

	32.09 Describe the proper installation of vapor barriers under slabs on grade.
	32.10 Establish finish grade and fill requirements.
33.0	Explain and demonstrate how to place reinforcing bars in walls, columns, beams, girders, joists and slabs. The student will be able to:
	33.01 Describe the applications of reinforcing bars, the uses of reinforced structural concrete and the basic processes involved in placing reinforcing bars.
	33.02 Recognize and identify the bar bends standardized by the American Concrete Institution (ACI).
	33.03 Read and interpret bar lists and describe the information found on a bar list.
	33.04 List the types of ties used in securing reinforcing bars.
	33.05 Demonstrate the proper use of common ties for reinforcing bars.
	33.06 Describe methods by which reinforcing bars may be cut and bent in the field.
	33.07 Use the tools and equipment needed for installing reinforcing bars.
	33.08 Safely use selected tools and equipment to cut, bend and install reinforcing materials.
	33.09 Explain the necessity of concrete cover in placing reinforcing bars.
	33.10 Identify lapped splices.
	33.11 (Optional) Install reinforcing bars in concrete wall, beam, girder and slab forms.
34.0	Discuss the transport and placement of concrete. The student will be able to:
	34.01 List various types of equipment used to transport and place concrete.
	34.02 Describe the factors that contribute to the quality of concrete placement.
	34.03 Explain the importance of control and expansion joints in slabs on grade.
	34.04 Demonstrate the correct methods for placing and consolidating concrete into forms.
	34.05 Use a screed to strike off and level concrete to the proper grade in a form.
	34.06 Use tools for placing, floating and finishing concrete.
	34.07 Explain when conditions permit the concrete finishing operation to start.
	34.08 Name the factors that affect the curing of concrete and describe the methods used to achieve proper curing.

	34.09 Care for and safely use hand and power tools used when working with concrete.
	34.10 (Optional) Place concrete in a horizontal form, screed, edge and trowel finish.

57.0
58.0

59.0 **Additional Information**

60.0

61.0 **Laboratory Activities**

62.0

63.0 Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

64.0

65.0 **Career and Technical Student Organization (CTSO)**

66.0

67.0 SkillsUSA is the co-curricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

68.0

69.0 **Cooperative Training – OJT**

70.0

71.0 On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

72.0

73.0 **Basic Skills**

74.0 In Career Certificate Programs offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Computation (Mathematics) and Communications (Reading and Language Arts). These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

75.0

76.0 Adult students with disabilities, as defined in Section 1004.02, Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01, F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College System Institution must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91, F.S.

77.0

78.0 **Accommodations**

79.0 Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

80.0

81.0 Note: postsecondary curriculum and regulated secondary programs cannot be modified.