

**Florida Department of Education
CLUSTER CURRICULUM FRAMEWORK**

Cluster Title: Carpentry and Cabinetmaking
Cluster Type: Job Preparatory
Occupational Area: Industrial Education
Components Two Programs, One Core, Seven Occupational Completion Points

	<u>Secondary</u>	<u>PSAV</u>
Grade Level	19-12, 30, 31	30, 31
Facility Code	203	203
CTSO	SkillsUSA	SkillsUSA
Co-op Method	Yes	Yes
Apprenticeship	Yes	Yes

- I. **PURPOSE:** The purpose of the programs in this cluster is to prepare students for employment in the carpentry and cabinetmaking industry with a stress on basic carpentry/cabinet making skills.

This cluster of programs focuses on broad, transferable skills, stresses the understanding of the carpentry and cabinetmaking industry, and demonstrates elements of the industry. Such as planning, technical and production skills, underlying principles of technology, labor issues, community issues, and health, safety, and environmental issues.

- II. **CLUSTER STRUCTURE:** This cluster is a planned sequence of instruction consisting of two programs with one common core and seven occupational completion points. The recommended sequence allows students to complete specified portions of the program for employment or to remain for additional training. A student who completes the applicable competencies at any occupational completion point may either continue with the training program or terminate as an occupational completer.

It is recommended that students complete the core or demonstrate a mastery of the student performance standards contained in the core before advancing to the course(s) in the next level of either of the programs, Carpentry or Cabinetmaking.

After completing the core, carpentry students may opt to take either the Trim and Finish Carpentry course or the Frame Carpentry course as exit-point goals. However, in order to proceed to Carpentry, students must first complete both the Trim and Finish Carpentry course and the Frame Carpentry course in addition to the core or demonstrate mastery of the performance standards contained in those courses.

Similarly, after completing the core, cabinetmaking students may opt to take either the Cabinet Finishing course or the Cabinet Assembling and Laminating course. Again, however, in order to proceed to

Cabinetmaking, students must first complete both the Cabinet Finishing course and the Cabinet Assembling and Laminating course in addition to the core or demonstrate mastery of the student performance standards contained in those courses.

III. **LABORATORY ACTIVITIES**: Classroom, shop, and laboratory activities are an integral part of this cluster. These activities include instruction in the use of safety procedures, tools, equipment, materials, and processes found in the industry. Equipment and supplies should be provided to enhance hands-on experiences for students in the chosen occupation.

IV. **SPECIAL NOTE**: SkillsUSA, Inc. is the appropriate Career Student Organization (CSO) for providing leadership training and for reinforcing specific career and technical skills. Career Student Organizations, when provided, shall be an integral part of the career instructional program, and the activities of such organizations are defined as part of the curriculum in accordance with Rule 6A-6.065, FAC.

When this program is offered at the postsecondary level it may be offered in courses. Vocational credit shall be awarded to the student on a transcript in accordance with Section 1001.44(3) (b), F.S.

Cooperative training - OJT is appropriate for this program. Whenever cooperative training - OJT is offered, the following are required for each student: a training plan, signed by the student, teacher, and employer, which includes instructional objectives and a list of on-the-job and in-school learning experiences; a workstation that reflects equipment, skills and tasks that are relevant to the occupation which the student has chosen as a career goal. The student must receive compensation for work performed.

In accordance with Rule 6A-10.040, FAC, the minimum basic-skills grade levels required for adult vocational students to complete this program is Mathematics 9.0, Language 9.0, Reading 9.0. These grade-level numbers correspond to grade-equivalent scores obtained on one of the state-designated basic-skills examinations. If a student does not meet the basic-skills level required for completion of the program, remediation should be provided concurrently through Vocational Preparatory Instruction (VPI). Please refer to the Rule for exemptions.

SCANS Competencies: Instructional strategies for this program must include methods that require students to identify, organize, and use resources appropriately; to work with each other cooperatively and productively; to acquire and use information; to understand social, organizational, and technological systems; and to work with a variety of tools and equipment. Instructional strategies must also incorporate the methods to improve students' personal qualities and high-order thinking skills.

When a secondary student with a disability is enrolled in a vocational class with modifications to the curriculum framework, the particular outcomes and student performance standards, which the student must master to earn credit, must be specified on an individual basis. The job or jobs for which the student is being trained should be reflected in the student's desired postschool

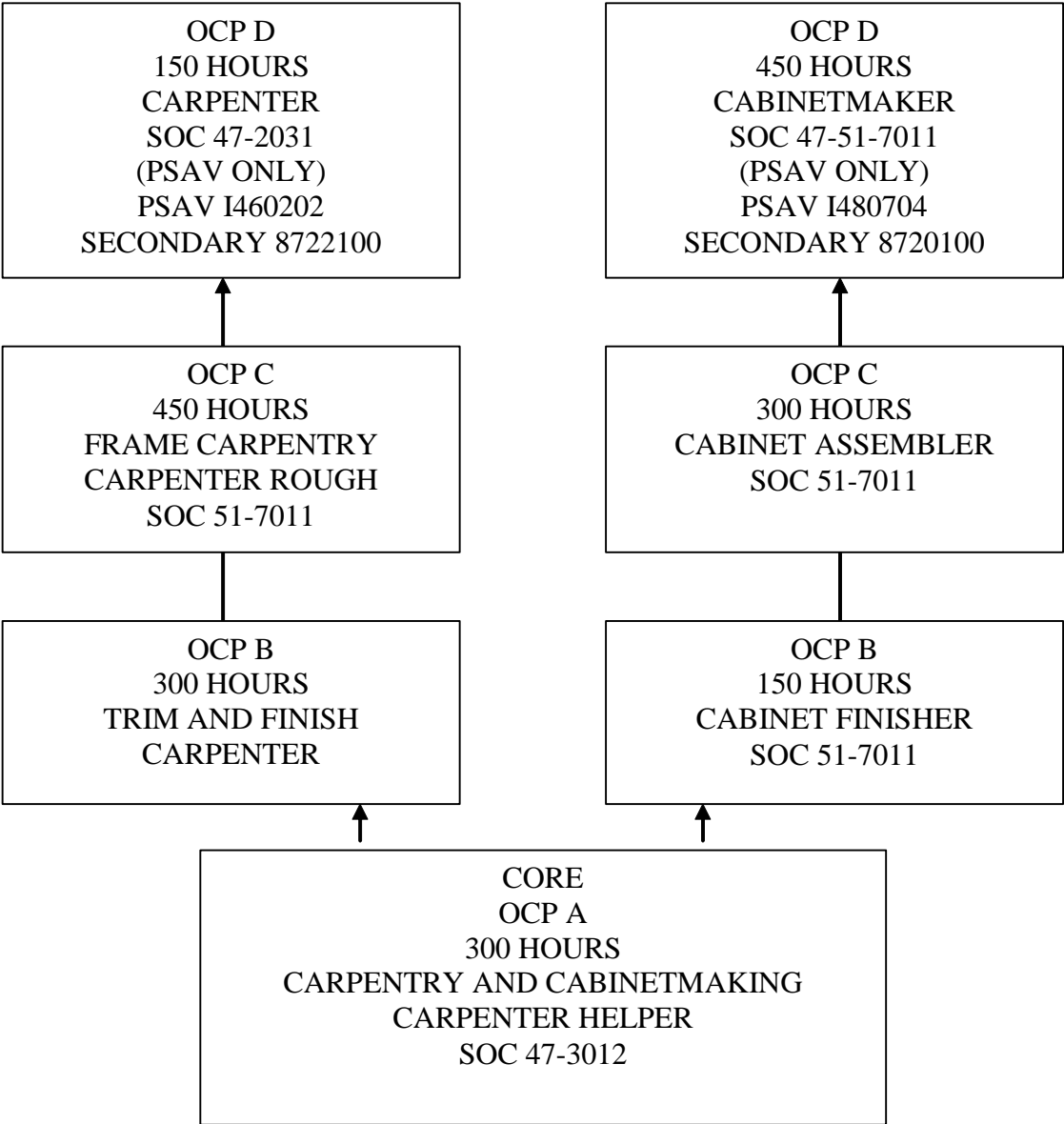
outcome statement on the Transition Individual Educational Plan (Transition IEP).

Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal access. Adult students with disabilities must self-identify and request such services. 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.

To be transferable statewide between institutions, this program/course must have been reviewed, and a "transfer value" assigned the curriculum content by the appropriate Statewide Course Numbering System discipline committee. This does not preclude institutions from developing specific program or course articulation agreements with each other.

When this program is offered at the postsecondary level it may be offered in courses. Vocational credit shall be awarded to the student on a transcript in accordance with Section 1001.44(3) (b), F.S.

THE FOLLOWING DIAGRAM ILLUSTRATES
THE
PROGRAM'S RECOMMENDED STRUCTURE



At the secondary level, students may only complete 7 courses for the carpentry program the student will also need 150 PSAV hours to complete carpentry. The secondary student may only complete 5 courses for the cabinet making program the student will also need 450 PSAV hours to complete cabinet making. Secondary courses, which include the core, are:

CARPENTRY PROGRAM - 7 secondary credits + 150 PSAV hours.

PROGRAM NUMBER 8722100

COURSES

8722110 - Carpentry and Cabinetmaking 1	(150)	
8722120 - Carpentry and Cabinetmaking 2	(150)	[300] OCP A
8722130 - Carpentry and Cabinetmaking 3	(150)	
8722140 - Carpentry 4	(150)	[300] OCP B
8722150 - Carpentry 5	(150)	
8722160 - Carpentry 6	(150)	
8722170 - Carpentry 7	(150)	[450] OCP C

CABINETMAKING PROGRAM - 5 secondary credits + 450 PSAV hours.

PROGRAM NUMBER 8720100

CORE COURSES

8722110 - Carpentry and Cabinetmaking 1	(150)	
8722120 - Carpentry and Cabinetmaking 2	(150)	[300] OCP A
8722130 - Carpentry and Cabinetmaking 3	(150)	[150] OCP B
8720140 - Cabinetmaking 4	(150)	
8720150 - Cabinetmaking 5	(150)	[300] OCP C

Florida Department of Education
INTENDED OUTCOMES

Program Title: **Carpentry**

	<u>Secondary</u>	<u>PSAV</u>
Program Number	8722100	I460202
CIP Number	0646020105	0646020105
Grade Level	9-12, 30, 31	30, 31
Length	7 Credits + 150 PSAV Hours	1200 Hours
SOC	47-2031	47-2031
Certification	TEC CONSTR @7 G BLDG CONST @7 G CARPENTRY @7 G CAB WOODWK @7 G	TEC CONSTR @7G BLDG CONST @7G CARPENTRY @7G CAB WOODWK @7G

Basic Skills

Math	9
Language	9
Reading	9

INTENDED OUTCOMES: After successfully completing the appropriate course(s) for each occupational completion point of this program, the student will be able to perform the following:

OCCUPATIONAL COMPLETION POINT - DATA CODE - A (300 hours)
 CARPENTER HELPER - (SOC 47-3012)

- 01.0 Apply shop and occupational safety skills.
- 02.0 Utilize manual and power tools.
- 03.0 Describe the importance of the construction industry in the American economy.
- 04.0 Identify the characteristics of building materials.
- 05.0 Identify fasteners and hardware.
- 06.0 Apply appropriate basic-math skills.
- 07.0 Apply appropriate communication skills.
- 08.0 Read basic blueprints.
- 09.0 Demonstrate employability skills.
- 10.0 Demonstrate positive customer-relations skills.
- 11.0 Demonstrate an understanding of entrepreneurship.

OCCUPATIONAL COMPLETION POINT - DATA CODE - B (300 hours)
 TRIM AND FINISH CARPENTER - (SOC 47-2031)

- 12.0 Use blueprints and specifications for trim and finish carpentry.
- 13.0 Install exterior covering and trim.
- 14.0 Install an interior door (wood and/or metal).
- 15.0 Lay out and construct an interior-stair system.
- 16.0 Install an interior wall and ceiling covering.
- 17.0 Install cabinets and shelving.

OCCUPATIONAL COMPLETION POINT - DATA CODE - C (450 hours)
CARPENTER, ROUGH - (SOC 47-2031)

- 18.0 Use blueprints and specifications for frame carpentry.
- 19.0 Set up and use a transit and a builder's level.
- 20.0 Perform site-preparation and layout activities.
- 21.0 Install finished roofing components.
- 22.0 Cut and install framing members for a floor (wood and/or metal).
- 23.0 Cut and install a wall and partition framing (wood and/or metal).
- 24.0 Frame a conventional roof (wood).
- 25.0 Identify roof trusses (wood and/or metal).
- 26.0 Install and dry-in sheathing.
- 27.0 Set up and install basic rigging and scaffolding.
- 28.0 Install an exterior door (wood and/or metal).
- 29.0 Install a window unit (wood and/or metal).
- 30.0 Lay out and construct an exterior-stair system.
- 31.0 Comply with hurricane codes.

OCCUPATIONAL COMPLETION POINT - DATA CODE - D (150 hours)
CARPENTER - (SOC 47-2031)

- 32.0 Identify structural timber.
- 33.0 Demonstrate problem-solving skills.
- 34.0 Use blueprints and specifications for form carpentry.
- 35.0 Explain or identify various forms.

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Program Title: Carpentry
Secondary Number: 8722100
Postsecondary Number: I460202

OCCUPATIONAL COMPLETION POINT - DATA CODE - A
CARPENTER HELPER

- 01.0 APPLY SHOP AND OCCUPATIONAL 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.
 - 01.03 Operate a fire extinguisher.
 - 01.04 Qualify in basic first-aid procedures.
 - 01.05 Identify common safety hazards.
 - 01.06 Identify and explain the proper use of common personal protective equipment (hard hats, safety glasses, safety shoes, etc.).
 - 01.07 Describe "Florida's Right-to-Know" Law, including the Material Safety Data Sheets (MSDS).
 - 01.08 Explain the purpose of the Occupational Safety and Health Administration (OSHA).
 - 01.09 Identify health-related problems that may result from exposure to hazardous materials.
 - 01.10 Describe the proper precautions for handling hazardous materials.
 - 01.11 Explain eligibility and the procedures for obtaining worker's compensation.
 - 01.12 Explain the importance of complying with ADA requirements for handicapped accessibility.
- 02.0 UTILIZE MANUAL AND POWER TOOLS--The student will be able to:
- 02.01 Identify various hand and power tools.
 - 02.02 Select correct tools for specific jobs.
 - 02.03 Clean and care for tools and equipment.
 - 02.04 Demonstrate proficiency in the safe use of hand tools and of portable and stationary power tools.
 - 02.05 Read and use carpenter's measuring tools.
- 03.0 DESCRIBE THE IMPORTANCE OF THE CONSTRUCTION INDUSTRY IN THE AMERICAN ECONOMY--The student will be able to:
- 03.01 Describe the role of the construction industry within the free-enterprise system.
 - 03.02 Identify career-progression opportunities in the carpentry and cabinetmaking industry.
 - 03.03 Describe current issues, topics, and materials in the building-construction industry.

- 04.0 **IDENTIFY THE CHARACTERISTICS OF BUILDING MATERIALS**--The student will be able to:
- 04.01 Identify the grades and species of lumber.
 - 04.02 Identify the actual and nominal sizes of lumber.
 - 04.03 Identify the grades of plywood and wood products.
 - 04.04 Identify defects and blemishes that affect the durability and strength of lumber.
 - 04.05 Explain the effects of temperature extremes, chemical reaction, and moisture content on building materials.
- 05.0 **IDENTIFY FASTENERS AND HARDWARE**--The student will be able to:
- 05.01 Identify the fasteners commonly used in carpentry and/or cabinetmaking.
 - 05.02 Identify the hardware commonly used in carpentry and/or cabinetmaking.
- 06.0 **APPLY APPROPRIATE BASIC MATH SKILLS**--The student will be able to:
- 06.01 Solve basic math problems related to carpentry and/or cabinetmaking, with and without a calculator; include geometry and algebra skills.
 - 06.02 Solve problems, using board, linear, foot, square-foot, and cubic-foot measurements.
 - 06.03 Solve problems for volume, weight, area, circumference, and perimeter measurements for rectangles, squares, and cylinders.
 - 06.04 Measure horizontal and vertical surfaces, using, Millimeters, feet, and inches.
- 07.0 **APPLY APPROPRIATE COMMUNICATION SKILLS**--The student will be able to:
- 07.01 Write logical and understandable statements.
 - 07.02 Interpret the graphs, charts, diagrams, and tables commonly used in the carpentry or cabinetmaking industry.
 - 07.03 Follow written and oral instructions.
 - 07.04 Ask and answer questions coherently, directly, and concisely.
 - 07.05 Demonstrate appropriate telephone communication skills.
- 08.0 **READ BASIC BLUEPRINTS**--The student will be able to:
- 08.01 Read an architect's scale.
 - 08.02 Identify architectural and engineering elevations, perspectives, and schedules.
 - 08.03 Identify lines and blueprint symbols.
- 09.0 **DEMONSTRATE EMPLOYABILITY SKILLS**--The student will be able to:
- 09.01 Conduct a job search and identify advanced-training opportunities, including apprenticeship programs, if appropriate.
 - 09.02 Obtain information about a job.
 - 09.03 Identify documents that may be required for a job application.
 - 09.04 Complete a job-application form.
 - 09.05 Demonstrate competence in job-interview techniques.

- 09.06 Demonstrate productive work habits and positive attitudes.
 - 09.07 Demonstrate knowledge of how to make job changes appropriately.
 - 09.08 Identify ethical and responsible practices.
 - 09.09 Demonstrate acceptable hygiene practices and a professional appearance.
 - 09.10 Apply the principles of time management, work simplification, and teamwork when performing assigned tasks.
 - 09.11 Explain the importance of taking pride in the quality of work performed.
 - 09.12 Describe the importance of a drug-free workplace and industry policy toward drug and alcohol use.
 - 09.13 Describe the ramifications of a poor-driving record on employability opportunities.
- 10.0 **DEMONSTRATE POSITIVE CUSTOMER-RELATIONS SKILLS**--The student will be able to:
- 10.01 Exercise self-control.
 - 10.02 Identify and demonstrate appropriate responses to criticism.
 - 10.03 Recognize basic human relations as they relate to success in the industry.
 - 10.04 Respond to customer complaints in a positive, professional manner.
 - 10.05 Demonstrate respect for people and property.
- 11.0 **DEMONSTRATE AN UNDERSTANDING OF ENTREPRENEURSHIP**--The student will be able to:
- 11.01 Define "entrepreneurship."
 - 11.02 Describe the importance of entrepreneurship to the American economy and the role of small business in the free-enterprise system.
 - 11.03 Debate the advantages and disadvantages of business ownership.

OCCUPATIONAL COMPLETION POINT - DATA CODE - B
TRIM AND FINISH CARPENTER

- 12.0 **USE BLUEPRINTS AND SPECIFICATIONS FOR TRIM AND FINISH CARPENTRY**--The student will be able to:
- 12.01 Read an architect's scale for a trim and finish carpentry job.
 - 12.02 Determine dimensions from a blueprint.
 - 12.03 Relate information on blueprints and specifications to real parts, locations, hardware, and fasteners.
- 13.0 **INSTALL EXTERIOR COVERING AND TRIM**--The student will be able to:
- 13.01 Identify the styles of soffit and fascia.
 - 13.02 Identify the styles of sidings.
 - 13.03 Install a soffit and fascia.
 - 13.04 Install siding and trim.

- 14.0 **INSTALL AN INTERIOR DOOR (WOOD AND/OR METAL)**--The student will be able to:
- 14.01 Identify the types and parts of interior-door systems.
 - 14.02 Install an interior-door jamb and hang a door.
 - 14.03 Identify and install interior-door hardware.
- 15.0 **LAY OUT AND CONSTRUCT AN INTERIOR STAIR SYSTEM**--The student will be able to:
- 15.01 Identify the types and styles of interior stair systems.
 - 15.02 Identify the components of an interior-stair system.
 - 15.03 Calculate the number of risers and treads for an interior-stair system.
 - 15.04 Lay out, cut, and assemble an interior-stair system (rough and finish).
- 16.0 **INSTALL AN INTERIOR WALL AND CEILING COVERING**--The student will be able to:
- 16.01 Install furring strips.
 - 16.02 Install drywall.
 - 16.03 Identify and install paneling and trim.
 - 16.04 Identify and install ceiling materials and systems.
- 17.0 **INSTALL CABINETS AND SHELVING**--The student will be able to:
- 17.01 Identify the types and parts of cabinets.
 - 17.02 Identify the types of cabinet doors.
 - 17.03 Identify the types of cabinet hardware.
 - 17.04 Install cabinet hardware.
 - 17.05 Install a custom-built cabinet.
 - 17.06 Install shelving.
 - 17.07 Construct and laminate a countertop.

OCCUPATIONAL COMPLETION POINT - DATA CODE - C
CARPENTER ROUGH

- 18.0 **USE BLUEPRINTS AND SPECIFICATIONS FOR FRAME CARPENTRY**--The student will be able to:
- 18.01 Read an architect's scale for a frame carpentry job.
 - 18.02 Determine dimensions from a blueprint.
 - 18.03 Relate information on blueprints and specifications to real parts, locations, hardware, and fasteners.
- 19.0 **SET UP AND USE A TRANSIT AND A BUILDER'S LEVEL**--The student will be able to:
- 19.01 Set up and adjust a transit and a builder's level over a point and establish lines over two points.
 - 19.02 Read a measuring rod.
 - 19.03 Perform differential leveling.

- 20.0 **PERFORM SITE-PREPARATION AND LAYOUT ACTIVITIES**--The student will be able to:
- 20.01 Identify building layout, using math skills.
 - 20.02 Erect batter boards and locate building lines.
 - 20.03 Locate building line points on batter boards, using a builder's level.
 - 20.04 Locate building lines on a plot plan.
 - 20.05 Square a building, using the 3-4-5-triangle method and the diagonal method.
- 21.0 **INSTALL FINISHED ROOFING COMPONENTS**--The student will be able to:
- 21.01 Install composition shingles in a valley.
 - 21.02 Install roof-flashing components and accessories.
 - 21.03 Install ridge vent.
 - 21.04 Frame, sheath, and flash a cricket.
- 22.0 **CUT AND INSTALL FRAMING MEMBERS FOR A FLOOR (WOOD AND/OR METAL)**--The student will be able to:
- 22.01 Identify and describe floor-framing members, including subfloor.
 - 22.02 Lay out, cut, and install supports for structures (e.g., sills, columns, beams, and girders).
 - 22.03 Lay out and install various types of joists and openings, including joists for a cantilevered floor.
 - 22.04 Install various types of bridging.
 - 22.05 Install various types of subfloors, applying fastening techniques.
- 23.0 **CUT AND INSTALL A WALL AND PARTITION FRAMING (WOOD AND/OR METAL)**--The student will be able to:
- 23.01 Identify framing members used in wall and partition construction.
 - 23.02 Lay out wall lines and partition locations on a floor.
 - 23.03 Lay out walls for studs, doors, and windows.
 - 23.04 Cut studs, trimmers, cripples, headers, and firestops to length.
 - 23.05 Build T's, corners, and headers.
 - 23.06 Lay out and assemble wall sections.
 - 23.07 Install wall sheathing and/or diagonal bracing.
 - 23.08 Install insulation material and a vapor barrier.
- 24.0 **FRAME A CONVENTIONAL ROOF (WOOD)**--The student will be able to:
- 24.01 Identify roof members, styles, and framing units.
 - 24.02 Compute the length of common, hip, and jack rafters.
 - 24.03 Lay out rafter and ceiling joist locations on plate and ridge on center.
 - 24.04 Select and install nails and fasteners according to specifications.
 - 24.05 Lay out, cut, and erect rafters.
 - 24.06 Install roof sheathing.

- 25.0 **IDENTIFY ROOF TRUSSES (WOOD AND/OR METAL)**--The student will be able to:
- 25.01 Identify the main parts of roof trusses.
 - 25.02 Identify the hardware used in roof truss construction.
 - 25.03 Describe the advantages of roof trusses.
 - 25.04 Describe the installation and bracing (temporary and permanent) of roof trusses.
- 26.0 **INSTALL AND DRY-IN SHEATHING**--The student will be able to:
- 26.01 Install sheathing.
 - 26.02 Select and install nails and fasteners according to the specifications.
 - 26.03 Dry-in a roof.
- 27.0 **SET UP AND INSTALL BASIC RIGGING AND SCAFFOLDING**--The student will be able to:
- 27.01 Identify and explain rigging equipment.
 - 27.02 Tie knots.
 - 27.03 Set up and install scaffolds, following safety precautions.
 - 27.04 Inspect various types of ladders and scaffolds, following safety precautions.
- 28.0 **INSTALL AN EXTERIOR DOOR (WOOD AND/OR METAL)**--The student will be able to:
- 28.01 Identify the parts of exterior door systems.
 - 28.02 Install exterior-door jambs and hang door.
 - 28.03 Install exterior door hardware.
- 29.0 **INSTALL A WINDOW UNIT (WOOD AND/OR METAL)**--The student will be able to:
- 29.01 Identify the types of windows.
 - 29.02 Identify the parts of a window unit.
 - 29.03 Install a window unit.
- 30.0 **LAY OUT AND CONSTRUCT AN EXTERIOR STAIR SYSTEM**--The student will be able to:
- 30.01 Identify types of exterior stair systems.
 - 30.02 Identify parts of an exterior stair system.
 - 30.03 Calculate the number of treads and risers for an exterior stair system.
 - 30.04 Lay out, cut, and assemble an exterior stair system.
- 31.0 **COMPLY WITH HURRICANE CODES**--the student will be able to:
- 31.01 Install hurricane strapping according to state and local codes
 - 31.02 Explain the need for hurricane strapping.
 - 31.03 Identify the different strapping and use in the correct application.

OCCUPATIONAL COMPLETION POINT - DATA CODE - D
CARPENTER

- 32.0 **IDENTIFY STRUCTURAL TIMBER**--The student will be able to:
- 32.01 Identify structural-timber components and heavy structural timber.
- 33.0 **DEMONSTRATE PROBLEM-SOLVING SKILLS**--The student will be able to:
- 33.01 Organize and plan multiple tasks, utilizing various resources such as time, personnel, and materials.
 - 33.02 Analyze problems, identify the causes, and devise plans of action.
 - 33.03 Identify obstacles, generate alternatives, and choose the best alternatives.
- 34.0 **BLUEPRINTS AND SPECIFICATIONS FOR FORM CARPENTRY**--The student will be able to:
- 34.01 Read an architect's scale for form carpentry job.
 - 34.02 Determine dimensions from a blueprint.
 - 34.03 Relate information on blueprints and specifications to real parts, locations, hardware, and fasteners.
- 35.0 **EXPLAIN OR IDENTIFY VARIOUS FORMS**--The student will be able to:
- 35.01 Identify styles of footings.
 - 35.02 Explain and settings a pier footing form.
 - 35.03 Explain how to strip a form for reuse.
 - 35.04 Explain edge forms for a floor with or without foundation walls and for a stoop.
 - 35.05 Explain various types of curb and gutter forms.
 - 35.06 Identify various types of beams, columns, and slabs with various form systems (Burke, Symons, plywood, and (2'x 4')).
 - 35.07 Identify and explain the different types and uses of flying forms for decks and shear walls.
 - 35.08 Explain concrete pressure and its implications for form work routines.
 - 35.09 Identify form-work accessories such as snap-ties, wedges, pigs-feet, whalers, and stiffbacks for forming walls, beams, and columns with plywood and 2'x 4' material.

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Number: 8722110
Course Title: Carpentry and Cabinetmaking 1
Course Credit: 1

COURSE DESCRIPTION:

The purpose of this course is to develop the competencies essential to the carpentry and cabinetmaking industry. These competencies relate to safety practices, tool- and equipment utilization, identification of building materials, fasteners and hardware, basic math, communication, and blueprint reading.

01.0 **APPLY SHOP AND OCCUPATIONAL SAFETY SKILLS**--The student will be able to:

- 01.01 Maintain a clean, orderly, and safe work area. (AT.8.1.4.3)
- 01.02 Transport, handle, and store materials safely. (AT.8.1.4.2)
- 01.03 Operate a fire extinguisher. (AT.8.1.4.3)
- 01.04 Qualify in basic first-aid procedures. (AT.8.1.4.3)
- 01.05 Identify common safety hazards. (AT.8.1.4.2), (LA.A.2.4.4), (LA.A.2.4.8)

02.0 **UTILIZE MANUAL AND POWER TOOLS**--The student will be able to:

- 02.01 Identify various hand and power tools. (AT.4.1.4.4), (LA.B.2.4.4)
- 02.02 Select correct tools for specific jobs. (AT.4.1.4.4)
- 02.03 Clean and care for tools and equipment. (AT.4.1.4.4)
- 02.04 Demonstrate proficiency in the safe use of hand tools and of portable and stationary power tools. (AT.4.1.4.4)
- 02.05 Read and use carpenter's measuring tools. (AT.4.1.4.4)

04.0 **IDENTIFY THE CHARACTERISTICS OF BUILDING MATERIALS**--The student will be able to:

- 04.01 Identify the grades and species of lumber. (MA.B.1.4.3), (SC.G.2.4.3), (LA.A.2.4.4), (LA.A.2.4.6), (LA.B.2.4.2), (LA.B.2.4.4)
- 04.02 Identify the actual and nominal sizes of lumber. (MA.B.4.4.1, (LA.B.2.4.2), (LA.B.2.4.4)
- 04.03 Identify the grades of plywood and wood products. (AT.4.1.4.2), (LA.A.2.4.4), (LA.A.2.4.6)
- 04.04 Identify defects and blemishes that affect the durability and strength of lumber. (AT.4.1.4.4), (SC.G.2.4.2)
- 04.05 Explain the effects of temperature extremes, chemical reaction, and moisture content on building materials. (SC.G.2.4.2), (LA.C.3.4.2), (LA.B.2.4.2)

05.0 **IDENTIFY FASTENERS AND HARDWARE**--The student will be able to:

- 05.01 Identify the fasteners commonly used in carpentry and/or cabinetmaking. (AT.4.1.4.4), (LA.B.2.4.2), (LA.B.2.4.4)

05.02 Identify the hardware commonly used in carpentry and/or cabinetmaking. (AT.4.1.4.4), (LA.B.2.4.2), (LA.B.2.4.4)

- 06.0 **APPLY APPROPRIATE BASIC MATH SKILLS**--The student will be able to:
- 06.01 Solve basic math problems related to carpentry and/or cabinetmaking, with and without a calculator; include geometry and algebra skills. (MA.A.3.4.3)
 - 06.02 Solve problems, using board, linear, foot, square-foot, and cubic-foot measurements. (MA.A.3.4.3)
- 07.0 **APPLY APPROPRIATE COMMUNICATION SKILLS**--The student will be able to:
- 07.01 Write logical and understandable statements. (LA.B.2.4.1), (LA.B.2.4.2), (LA.B.2.4.3), (LA.B.2.4.4)
 - 07.03 Follow written and oral instructions. (LA.A.2.4.4), (LA.A.2.4.6), (LA.A.2.4.7), (LA.A.2.4.8), (LA.C.1.4.1)
 - 07.04 Ask and answer questions coherently, directly, and concisely. (LA.C.3.4.1)
 - 07.05 Demonstrate appropriate telephone communication skills. (AT.4.1.4.4), (LA.C.3.4.1), (LA.D.1.4.2)
- 08.0 **READ BASIC BLUEPRINTS**--The student will be able to:
- 08.01 Read an architect's scale. (MA.B.2.4.1)
 - 08.03 Identify lines and blueprint symbols. (AT.4.1.4.4), (LA.A.1.4.3)

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Number: 8722120
Course Title: Carpentry and Cabinetmaking 2
Course Credit: 1

COURSE DESCRIPTION:

The purpose of this course is to develop in-depth knowledge and skills related to safety, manual and power tools, the construction industry in America, math applications, communication, and blueprint reading and to develop the competencies essential to the carpentry and cabinetmaking industry. These competencies relate to fasteners and hardware, employability skills, customer relations, and entrepreneurship.

01.0 **APPLY SHOP AND OCCUPATIONAL SAFETY SKILLS**--The student will be able to:

- 01.06 Identify and explain the proper use of common personal protective equipment (hard hats, safety glasses, safety shoes, etc.). (AT.8.1.4.1), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.07 Describe "Florida's Right-to-Know" Law, including the Material Safety Data Sheets (MSDS). (AT.8.1.4.3), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.08 Explain the purpose of the Occupational Safety and Health Administration (OSHA). (AT.8.1.4.3), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.09 Identify health-related problems that may result from exposure to hazardous materials. (AT.8.1.4.2), (SC.G.2.4.6), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.10 Describe the proper precautions for handling hazardous materials. (AT.8.1.4.2), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.11 Explain eligibility and the procedures for obtaining worker's compensation. (AT.6.1.4.1), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.12 Explain the importance of complying with ADA requirements for handicapped accessibility. (AT.9.1.4.2), (LA.C.3.4.2), (LA.B.2.4.2)

03.0 **DESCRIBE THE IMPORTANCE OF THE CONSTRUCTION INDUSTRY IN THE AMERICAN ECONOMY**--The student will be able to:

- 03.01 Describe the role of the construction industry within the free-enterprise system. (AT.7.1.4.1), (LA.C.3.4.2), (LA.B.2.4.1), (LA.B.2.4.2), (LA.B.2.4.3)
- 03.02 Identify career-progression opportunities in the carpentry and cabinetmaking industry. (AT.1.1.4.2), (LA.C.3.4.2), (LA.B.2.4.1), (LA.B.2.4.2), (LA.B.2.4.3)
- 03.03 Describe current issues, topics, and materials in the building-construction industry. (AT.7.1.4.2), (LA.C.3.4.2), (LA.B.2.4.1), (LA.B.2.4.2), (LA.B.2.4.3)

06.0 **APPLY APPROPRIATE BASIC MATH SKILLS**--The student will be able to:

- 06.03 Solve problems for volume, weight, area, circumference, and perimeter measurements for rectangles, squares, and cylinders. (MA.C.2.4.1)

- 06.04 Measure horizontal and vertical surfaces, using, millimeters, feet, and inches. (MA.A.3.4.3)
- 07.0 **APPLY APPROPRIATE COMMUNICATION SKILLS**--The student will be able to:
- 07.02 Interpret the graphs, charts, diagrams, and tables commonly used in the carpentry or cabinetmaking industry. (MA.D.1.4.1), (LA.A.2.4.4), (LA.A.2.4.6), (LA.A.2.4.8), (LA.B.2.4.4)
- 08.0 **READ BASIC BLUEPRINTS**--The student will be able to:
- 08.02 Identify architectural and engineering elevations, perspectives, and schedules. (AT.4.1.4.4), (LA.2.4.4), (LA.A.2.4.6)
- 09.0 **DEMONSTRATE EMPLOYABILITY SKILLS**--The student will be able to:
- 09.01 Conduct a job search and identify advanced-training opportunities, including apprenticeship programs, if appropriate. (AT.9.1.4.1), (AT.3.1.4.5), (LA.B.2.4.4)
- 09.02 Obtain information about a job. (AT.3.1.4.5), (AT.1.1.4.1), (LA.B.2.4.4), (LA.B.2.4.4)
- 09.03 Identify documents that may be required for a job application. (AT.1.1.4.1), (LA.A.2.4.4), (LA.A.2.4.6), (LA.B.2.4.4)
- 09.04 Complete a job-application form. (AT.9.1.4.1), (LA.B.1.4.3)
- 09.05 Demonstrate competence in job-interview techniques. (AT.9.1.4.1)
- 09.06 Demonstrate productive work habits and positive attitudes. (AT.9.1.4.1)
- 09.07 Demonstrate knowledge of how to make job changes appropriately. (AT.9.1.4.2)
- 09.08 Identify ethical and responsible practices. (AT.9.1.4.1), (HE.B.3.4.2)
- 09.09 Demonstrate acceptable hygiene practices and a professional appearance. (HE.B.1.4.1)
- 09.10 Apply the principles of time management, work simplification, and teamwork when performing assigned tasks. (AT.2.1.4.1), (HE.B.1.4.1)
- 09.11 Explain the importance of taking pride in the quality of work performed. (AT.9.1.4.1), (HE.B.1.4.1), (LA.C.3.4.2)
- 09.12 Describe the importance of a drug-free workplace and industry policy toward drug and alcohol use. (HE.A.1.4.2), (LA.C.3.4.2)
- 09.13 Describe the ramifications of a poor driving record on employability opportunities. (HE.B.1.4.1), (LA.C.3.4.2)
- 10.0 **DEMONSTRATE POSITIVE CUSTOMER-RELATIONS SKILLS**--The student will be able to:
- 10.01 Exercise self-control. (AT.9.1.4.2), (HE.B.3.4.5)
- 10.02 Identify and demonstrate appropriate responses to criticism. (AT.9.1.4.2), (HE.B.3.4.5), (LA.C.1.4.4)
- 10.03 Recognize basic human relations as they relate to success in the industry. (AT.9.1.4.1), (HE.B.3.4.5)
- 10.04 Respond to customer complaints in a positive, professional manner. (AT.9.1.4.1), (HE.B.3.4.4), (LA.C.1.4.3)
- 10.05 Demonstrate respect for people and property. (AT.81.43), (AT.9.1.4.1), (HE.B.3.4.2)

11.0 **DEMONSTRATE AN UNDERSTANDING OF ENTREPRENEURSHIP**--The student will be able to:

11.01 Define "entrepreneurship". (AT.2.3.4.1)

11.02 Describe the importance of entrepreneurship to the American economy and the role of small business in the free-enterprise system. (SS.D.2.4.4), (LA.C.3.4.2)

11.03 Debate the advantages and disadvantages of business ownership. (AT.2.3.4.2), (LA.C.3.4.5)

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Number: 8722130
Course Title: Carpentry and Cabinetmaking 3
Course Credit: 1

COURSE DESCRIPTION:

This course provides students with an in-depth knowledge of trim and finish carpentry. It trains students to use blueprints and specifications and to install an exterior covering and trim, interior doors, interior-stair systems, interior walls, ceiling coverings, and cabinet and shelving.

12.0 USE BLUEPRINTS AND SPECIFICATIONS FOR TRIM AND FINISH CARPENTRY--
The student will be able to:

- 12.01 Read an architect's scale for a trim and finish carpentry job. (MA.B.4.4.1)
- 12.02 Determine dimensions from a blueprint. (AT.4.1.4.4), (LA.A.2.4.4)
- 12.03 Relate information on blueprints and specifications to real parts, locations, hardware, and fasteners. (MA.B.4.4.2), (LA.A.2.4.4), (LA.A.2.4.8)

13.0 INSTALL EXTERIOR COVERING AND TRIM--The student will be able to:

- 13.01 Identify the styles of soffit and fascia. (AT.1.1.4.1)
- 13.02 Identify the styles of siding. (AT.1.1.4.1)
- 13.03 Install a soffit and fascia. (MA.B.3.4.1)
- 13.04 Install siding and trim. (MA.B.3.4.1)

14.0 INSTALL AN INTERIOR DOOR (WOOD AND/OR METAL)--The student will be able to:

- 14.01 Identify the types and parts of interior-door systems. (AT.1.4.4.1)
- 14.02 Install an interior-door jamb and hang a door. (MA.B.3.4.1)
- 14.03 Identify and install interior-door hardware. (MA.B.3.4.1)

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Number: 8722140
Course Title: Carpentry 4
Course Credit: 1

COURSE DESCRIPTION:

This course provides students with the knowledge and skills needed for trim and finish carpentry. The content is related to interior stair systems, interior wall and ceiling covering systems, cabinets and shelving.

15.0 **LAY OUT AND CONSTRUCT AN INTERIOR-STAIR SYSTEM**--The student will be able to:

- 15.01 Identify the types and styles of interior-stair systems. (AT.1.1.4.1)
- 15.02 Identify the components of an interior-stair system. (AT.1.1.4.1)
- 15.03 Calculate the number of risers and treads for an interior-stair system. (MA.C.3.4.1)
- 15.04 Lay out, cut, and assemble an interior-stair system (rough and finish). (MA.C.3.4.1)

16.0 **INSTALL AN INTERIOR WALL AND CEILING COVERING**--The student will be able to:

- 16.01 Install furring strips. (AT.1.1.4.1)
- 16.02 Install drywall. (AT.1.1.4.1)
- 16.03 Identify and install paneling and trim. (AT.1.1.4.1)
- 16.04 Identify and install ceiling materials and systems. (AT.1.1.4.1)

17.0 **INSTALL CABINETS AND SHELVING**--The student will be able to:

- 17.01 Identify the types and parts of cabinets. (AT.1.1.4.1)
- 17.02 Identify the types of cabinet doors. (AT.1.1.4.1)
- 17.03 Identify the types of cabinet hardware. (AT.1.1.4.1)
- 17.04 Install cabinet hardware. (AT.1.1.4.1)
- 17.05 Install a custom-built cabinet. (AT.1.1.4.1)
- 17.06 Install shelving. (AT.1.1.4.1)
- 17.07 Construct and laminate a countertop. (AT.1.1.4.1)

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Number: 8722150
Course Title: Carpentry 5
Course Credit: 1

COURSE DESCRIPTION:

This course provides students with the knowledge and skills needed for frame and form carpentry. The content related to blueprints and specifications; site preparation; framing members, walls, and partition framing; roof framing; roof trusses; and sheathing.

18.0 **USE BLUEPRINTS AND SPECIFICATIONS FOR FRAME AND FORM CARPENTRY**--
The student will be able to:

- 18.01 Read an architect's scale for a frame and form carpentry job. (MA.B.2.4.1)
- 18.02 Determine dimensions from a blueprint. (MA.B.2.4.2), (LA.A.2.4.4)
- 18.03 Relate information on blueprints and specifications to real parts, locations, hardware, and fasteners. (AT.4.1.4.4), (LA.A.2.4.4), (LA.A.2.4.8)

20.0 **PERFORM SITE-PREPARATION AND LAYOUT ACTIVITIES**--The student will be able to:

- 20.01 Identify building layout, using math skills. (MA.C.3.4.1)
- 20.02 Erect batter boards and locate building lines. (MA.C.3.4.1)
- 20.03 Locate building line points on batter boards, using a builder's level. (MA.C.3.4.1)
- 20.04 Locate building lines on a plot plan. (MA.C.3.4.1), (LA.A.2.4.4.)
- 20.05 Square a building, using the 3-4-5-triangle method and the diagonal method. (MA.C.3.4.1)

21.0 **INSTALL FINISHED ROOFING COMPONENTS**--The student will be able to:

- 21.01 Install composition shingles in a valley. (AT.4.1.4.4)
- 21.02 Install roof-flashing components and accessories. (AT.4.1.4.4)
- 21.03 Install ridge vent. (AT.4.1.4.4)
- 21.04 Frame, sheath, and flash a cricket. (AT.4.1.4.4)

22.0 **CUT AND INSTALL FRAMING MEMBERS FOR A FLOOR (WOOD AND/OR METAL)**--
The student will be able to:

- 22.01 Identify and describe floor-framing members, including subfloor. (AT.4.1.4.4), (LA.B.2.4.4)
- 22.02 Lay out, cut, and install supports for structures (e.g., sills, columns, beams, and girders). (AT.4.1.4.4)
- 22.03 Lay out and install various types of joists and openings, including joists for a cantilevered floor. (MA.C.3.4.1)
- 22.04 Install various types of bridging. (AT.4.1.4.4)
- 22.05 Install various types of subfloors, applying fastening techniques. (AT.4.1.4.4)

23.0 **CUT AND INSTALL A WALL AND PARTITION FRAMING (WOOD AND/OR METAL)**--
The student will be able to:

- 23.01 Identify framing members used in wall and partition construction. (AT.4.1.4.4), (LA.B.2.4.4)
- 23.02 Lay out wall lines and partition locations on a floor. (MA.C.3.4.1)
- 23.03 Lay out walls for studs, doors, and windows. (MA.C.3.4.1)
- 23.04 Cut studs, trimmers, cripples, headers, and firestops to length. (MA.C.3.4.1)
- 23.05 Build T's, corners, and headers. (MA.C.3.4.1)
- 23.06 Lay out and assemble wall sections. (MA.C.3.4.1)
- 23.07 Install wall sheathing and/or diagonal bracing. (AT.4.1.4.4)
- 23.08 Install insulation material and a vapor barrier. (AT.4.1.4.4)

24.0 **FRAME A CONVENTIONAL ROOF (WOOD)**--The student will be able to:

- 24.01 Identify roof members, styles, and framing units. (AT.4.1.4.4), (LA.B.2.4.4)
- 24.02 Compute the length of common, hip, and jack rafters. (MA.C.3.4.1)
- 24.03 Lay out rafter and ceiling joist locations on plate and ridge on center. (MA.C.3.4.1)
- 24.04 Select and install nails and fasteners according to specifications. (AT.4.1.4.4), (LA.A.2.4.8)
- 24.05 Lay out, cut, and erect rafters. (MA.C.3.4.1)
- 24.06 Install roof sheathing. (AT.4.1.4.4)

25.0 **IDENTIFY ROOF TRUSSES (WOOD AND/OR METAL)**--The student will be able to:

- 25.01 Identify the main parts of roof trusses. (AT.4.1.4.4, (LA.B.2.4.2), (LA.B.2.4.4)
- 25.02 Identify the hardware used in roof truss construction. (AT.4.1.4.4), (LA.B.2.4.2), (LA.B.2.4.4)
- 25.03 Describe the advantages of roof trusses. (LA.B.2.4.2), (LA.B.2.4.4)
- 25.04 Describe the installation and bracing (temporary and permanent) of roof trusses. (LA.B.2.4.4), (LA.C.3.4.2), (LA.B.2.4.2),

26.0 **INSTALL AND DRY-IN SHEATHING**--The student will be able to:

- 26.01 Install sheathing. (AT.4.1.4.4)
- 26.02 Select and install nails and fasteners according to the specifications. (AT.4.1.4.4), (LA.A.2.4.8)
- 26.03 Dry-in a roof. (AT.4.1.4.4)

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Number: 8722160
Course Title: Carpentry 6
Course Credit: 1

COURSE DESCRIPTION:

This course provides students with the in-depth knowledge and skills needed for frame and form carpentry. The content deals with the use of a transit and a builder's level; the construction of forms; and the installation of rigging and scaffolding, exterior doors and stairs, and window units.

19.0 **SET UP AND USE A TRANSIT AND A BUILDER'S LEVEL**--The student will be able to:

19.01 Set up and adjust a transit and a builder's level over a point and establish lines over two points. (MA.C.3.4.1)

19.02 Read a measuring rod. (MA.C.3.4.1)

19.03 Perform differential leveling. (MA.C.3.4.1)

27.0 **SET UP AND INSTALL BASIC RIGGING AND SCAFFOLDING**--The student will be able to:

27.01 Identify and explain rigging equipment. (AT.4.1.4.4), (LA.B.2.4.4)

27.02 Inspect rigging equipment, following safety precautions. (AT.8.1.4.3)

27.03 Estimate size, weight, and center of gravity. (AT.4.1.4.4), (SC.C.2.4.6)

27.04 Tie knots. (AT.4.1.4.4)

27.05 Identify and explain types of cranes. (AT.4.1.4.4)

27.06 Rig and move materials and equipment, following safety precautions. (AT.4.1.4.4), (SC.C.2.4.6)

27.07 Set up and install scaffolds, following safety precautions. (AT.8.1.4.3)

27.08 Inspect various types of ladders and scaffolds, following safety precautions. (AT.8.1.4.3)

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Number: 8722170
Course Title: Carpentry 7
Course Credit: 1

COURSE DESCRIPTION:

This course provides students with the in-depth knowledge and skills needed for frame and form carpentry. The content deals with the use of a transit and a builder's level; the construction of forms; and the installation of rigging and scaffolding, exterior doors and stairs, and

28.0 **INSTALL AN EXTERIOR DOOR (WOOD AND/OR METAL)**--The student will be able to:

28.01 Identify the parts of exterior door systems. (AT.4.1.4.4), (LA.B.2.4.4)

28.02 Install exterior-door jambs and hang door. (AT.4.1.4.4)

28.03 Install exterior-door hardware. (AT.4.1.4.4)

29.0 **INSTALL A WINDOW UNIT (WOOD AND/OR METAL)**--The student will be able to:

29.01 Identify the types of windows. (AT.4.1.4.4), (LA.B.2.4.4)

29.02 Identify the parts of a window unit. (AT.4.1.4.4), (LA.B.2.4.4)

29.03 Install a window unit. (AT.4.1.4.4)

30.0 **LAY OUT AND CONSTRUCT AN EXTERIOR STAIR SYSTEM**--The student will be able to:

30.01 Identify the types of exterior stair systems. (AT.4.1.4.4), (LA.B.2.4.4)

30.02 Identify the parts of an exterior stair system. (AT.4.1.4.4), (LA.B.2.4.4)

30.03 Calculate the number of treads and risers for an exterior stair system. (MA.C.3.4.1)

30.04 Lay out, cut, and assemble an exterior stair system. (AT.4.1.4.4)

31.0 **COMPLY WITH HURRICANE CODES**--the student will be able to:

31.01 Install hurricane anchors. (AT.4.1.4.4), (LA.B.2.4.4)

31.02 Install hurricane clips. (AT.4.1.4.4), (LA.B.2.4.4)

31.03 Install hurricane straps. (AT.4.1.4.4)

31.04 Explain the purpose and importance of the codes relating to hurricanes. (LA.B.2.4.2), (SC.D.1.4.1)

Florida Department of Education
INTENDED OUTCOMES

Program Title: Cabinetmaking

	<u>Secondary</u>	<u>PSAV</u>
Program Number	8720100	I480704
CIP Number	0648070302	0648070302
Grade Level	9-12, 30, 31	30, 31
Length	5 Credits + 450 PSAV Hours	1200 Hours
SOC	51-7011	51-7011
Certification	CAB WOODWK @7 G CARPENTRY @7 G BLDG CONST @7 G TEC CONSTR @7 G	CAB WOODWK @7 G CARPENTRY @7 G BLDG CONST @7 G TEC CONSTR @7 G
Basic Skills		
Math	9	
Language	9	
Reading	9	

INTENDED OUTCOMES: After successfully completing the appropriate course(s) for each occupational completion point of this program, the student will be able to perform the following:

OCCUPATIONAL COMPLETION POINT - DATA CODE - A (300 hours)
 CARPENTER HELPER - (SOC 47-3012)

- 01.0 Apply shop and occupational safety skills.
- 02.0 Utilize manual and power tools.
- 03.0 Describe the importance of the construction industry in the American economy.
- 04.0 Identify the characteristics of building materials.
- 05.0 Identify fasteners and hardware.
- 06.0 Apply appropriate basic-math skills.
- 07.0 Apply appropriate communication skills.
- 08.0 Read basic blueprints.
- 09.0 Demonstrate employability skills.
- 10.0 Demonstrate positive customer-relations skills.
- 11.0 Demonstrate an understanding of entrepreneurship.

OCCUPATIONAL COMPLETION POINT - DATA CODE - B (150 hours)
 CABINET FINISHER - (SOC 51-7011)

- 12.0 Prepare cabinets for finish.
- 13.0 Apply finishes.

OCCUPATIONAL COMPLETION POINT - DATA CODE - C (300 hours)
 CABINET ASSEMBLER - (SOC 51-7011)

- 14.0 Fasten stock and joints.
- 15.0 Assemble cabinet components.
- 16.0 Install cabinets.
- 17.0 Apply laminates.

OCCUPATIONAL COMPLETION POINT - DATA CODE - D (450 hours)
CABINETMAKER - (SOC 51-7011)

- 18.0 Plan, design, and lay out casework.
- 19.0 Utilize power tools specific to cabinet making.
- 20.0 Construct joints.
- 21.0 Cut casework components.
- 22.0 Assemble casework components.
- 23.0 Construct cabinet drawers.
- 24.0 Construct cabinet doors.
- 25.0 Construct curved pieces.
- 26.0 Perform millwork operations.
- 27.0 Demonstrate problem-solving skills.

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Program Title: Cabinetmaking
Secondary Number: 8720100
Postsecondary Number: I480704

OCCUPATIONAL COMPLETION POINT - DATA CODE - A
CARPENTER HELPER

- 01.0 APPLY SHOP AND OCCUPATIONAL 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.
 - 01.03 Operate a fire extinguisher.
 - 01.04 Qualify in basic first-aid procedures.
 - 01.05 Identify common safety hazards.
 - 01.06 Identify and explain the proper use of common personal protective equipment (hard hats, safety glasses, safety shoes, etc.).
 - 01.07 Describe Florida's "Right-to-Know", Law, including the Material Safety Data Sheets (MSDS).
 - 01.08 Explain the purpose of the Occupational Safety and Health Administration (OSHA).
 - 01.09 Identify health-related problems that may result from exposure to hazardous materials.
 - 01.10 Describe the proper precautions for handling hazardous materials.
 - 01.11 Explain eligibility and the procedures for obtaining worker's compensation.
 - 01.12 Explain the importance of complying with ADA requirements for handicapped accessibility.
- 02.0 UTILIZE MANUAL AND POWER TOOLS--The student will be able to:
- 02.01 Identify various hand and power tools.
 - 02.02 Select correct tools for specific jobs.
 - 02.03 Clean and care for tools and equipment.
 - 02.04 Demonstrate proficiency in the safe use of hand tools and of portable and stationary power tools.
 - 02.05 Read and use carpenter's measuring tools.
- 03.0 DESCRIBE THE IMPORTANCE OF THE CONSTRUCTION INDUSTRY IN THE AMERICAN ECONOMY--The student will be able to:
- 03.01 Describe the role of the construction industry within the free-enterprise system.
 - 03.02 Identify career-progression opportunities in the carpentry and cabinetmaking industry.
 - 03.03 Describe current issues, topics, and materials in the building-construction industry.
- 04.0 IDENTIFY THE CHARACTERISTICS OF BUILDING MATERIALS--The student will be able to:

- 04.01 Identify the grades and species of lumber.
 - 04.02 Identify the actual and nominal sizes of lumber.
 - 04.03 Identify the grades of plywood and wood products
 - 04.04 Identify defects and blemishes that affect the durability and strength of lumber.
 - 04.05 Explain the effects of temperature extremes, chemical reaction, and moisture content on building materials.
- 05.0 **IDENTIFY FASTENERS AND HARDWARE**--The student will be able to:
- 05.01 Identify the fasteners commonly used in carpentry and cabinetmaking.
 - 05.02 Identify the hardware commonly used in carpentry and cabinetmaking.
- 06.0 **APPLY APPROPRIATE BASIC MATH SKILLS**--The student will be able to:
- 06.01 Solve basic math problems related to carpentry and/or cabinetmaking, with and without a calculator; include geometry and algebra skills.
 - 06.02 Solve problems, using board, linear, foot, square-foot, and cubic-foot measurements.
 - 06.03 Solve problems for volume, weight, area, circumference, and perimeter measurements for rectangles, squares, and cylinders.
 - 06.04 Measure horizontal and vertical surfaces, using millimeters, centimeters, feet, and inches.
- 07.0 **APPLY APPROPRIATE COMMUNICATION SKILLS**--The student will be able to:
- 07.01 Write logical and understandable statements.
 - 07.02 Interpret the graphs, charts, diagrams, and tables commonly used in the carpentry industry.
 - 07.03 Follow written and oral instructions.
 - 07.04 Ask and answer questions coherently, directly, and concisely.
 - 07.05 Demonstrate appropriate telephone communication skills.
- 08.0 **READ BASIC BLUEPRINTS**--The student will be able to:
- 08.01 Read an architect's scale.
 - 08.02 Identify architectural and engineering elevations, perspectives, and schedules.
 - 08.03 Identify lines and blueprint symbols.
- 09.0 **DEMONSTRATE EMPLOYABILITY SKILLS**--The student will be able to:
- 09.01 Conduct a job search and identify advanced-training opportunities, including apprenticeship programs, if appropriate.
 - 09.02 Obtain information about a job.
 - 09.03 Identify documents that may be required for a job application.
 - 09.04 Complete a job-application form.
 - 09.05 Demonstrate competence in job-interview techniques.
 - 09.06 Demonstrate productive work habits and positive attitudes.
 - 09.07 Demonstrate knowledge of how to make job changes appropriately.
 - 09.08 Identify ethical and responsible practices.

- 09.09 Demonstrate acceptable hygiene practices and a professional appearance.
 - 09.10 Apply the principles of time management, work simplification, and teamwork when performing assigned tasks.
 - 09.11 Explain the importance of taking pride in the quality of work performed.
 - 09.12 Explain the importance of a drug-free workplace and industry policy toward drug and alcohol use.
 - 09.13 Describe the ramifications of a poor driving record on employability opportunities.
- 10.0 **DEMONSTRATE POSITIVE CUSTOMER-RELATIONS SKILLS**--The student will be able to:
- 10.01 Exercise self-control.
 - 10.02 Identify and demonstrate appropriate responses to criticism.
 - 10.03 Recognize basic human relations as they relate to success in the industry.
 - 10.04 Respond to customer complaints in a positive, professional manner.
 - 10.05 Demonstrate respect for people and property.
- 11.0 **DEMONSTRATE AN UNDERSTANDING OF ENTREPRENEURSHIP**--The student will be able to:
- 11.01 Define "entrepreneurship".
 - 11.02 Describe the importance of entrepreneurship to the American economy and the role of small business in the free-enterprise system.
 - 11.03 Debate the advantages and disadvantages of business ownership.
- OCCUPATIONAL COMPLETION POINT - DATA CODE - B**
CABINET FINISHER
- 12.0 **PREPARE CABINETS FOR FINISH**--The student will be able to:
- 12.01 Fill nail and screw holes.
 - 12.02 Install wood plugs in prepared holes.
 - 12.03 Sand a cabinet and joints for finish.
 - 12.04 Select and apply proper filler.
 - 12.05 Sand wood surfaces for finishing.
 - 12.06 Stain, bleach, fill, and seal wood surfaces, as needed.
- 13.0 **APPLY FINISHES**--The student will be able to:
- 13.01 Apply various types of finishes, including:
 - a. lacquer-based
 - B. water-based
 - C. oil-based
 - D. enamel
 - E. polyurethane
 - 13.02 Apply the types of finishes that the local market demands.
 - 13.03 Observe safety precautions when applying finishes, including wearing respirator and protective clothing approved by National Institute of Occupational Safety and Health (NIOSH).

OCCUPATIONAL COMPLETION POINT - DATA CODE - C
CABINET ASSEMBLER

- 14.0 **FASTEN STOCK AND JOINTS**--The student will be able to:
- 14.01 Identify types of glues and fasteners and describe their applications.
 - 14.02 Fasten stock with glue and clamps.
 - 14.03 Fasten stock and joints with appropriate fasteners, such as:
 - a. nails
 - B. staples
 - C. screws
 - D. bolts
 - 14.04 Fill and finish nail and screw holes with fillers and plugs.
 - 14.05 Glue and clamp stock, using various techniques.
- 15.0 **ASSEMBLE CABINET COMPONENTS**--The student will be able to:
- 15.01 Install hardware, such as hinges, catches, pulls, knobs, and guides, on assembled cabinets.
 - 15.02 Install fasteners.
 - 15.03 Install drawers.
 - 15.04 Install various types of doors, including:
 - a. overlay
 - b. lipped
 - c. Flush
 - 15.05 Install adjustable shelving.
 - 15.06 Install glass panels and metal grills.
 - 15.07 Install specialty hardware, such as a lazy Susan, wire racks, and "pull-outs".
 - 15.08 Install sliding doors and track.
- 16.0 **INSTALL CABINETS**--The student will be able to:
- 16.01 Load and secure casework for hauling.
 - 16.02 Check walls and floors for level and plump.
 - 16.03 Determine fasteners for block or walls.
 - 16.04 Install upper and lower cabinets and other casework.
 - 16.05 Fasten a suspended cabinet unit to ceiling.
 - 16.06 Install countertops, including sink cutouts and back splash.
 - 16.07 Cut and install molding and trim.
 - 16.08 Adjust doors and drawers.
 - 16.09 Clean work site.
- 17.0 **APPLY LAMINATES**--The student will be able to:
- 17.01 Lay out and cut core stock to specifications.
 - 17.02 Lay out and cut laminate to specification.
 - 17.03 Apply adhesive.
 - 17.04 Apply laminate to core stock.
 - 17.05 Trim and file plastic laminate edges.
 - 17.06 Clean laminated surfaces.
 - 17.07 Laminate a curved surface.
 - 17.08 Repair laminate defects.

OCCUPATIONAL COMPLETION POINT - DATA CODE - D
CABINETMAKING

- 18.0 **PLAN, DESIGN, AND LAY OUT CASEWORK**--The student will be able to:
- 18.01 Convert measurements from English to the metric system and from the metric system to the English system.
 - 18.02 Interpret blueprints and explain common abbreviations used on drawings.
 - 18.03 Draw a set of plans to scale.
 - 18.04 Make a layout on the rod.
 - 18.05 Develop a plan or procedure and a cut list for a specific job.
 - 18.06 Estimate the materials required for the job.
 - 18.07 Estimate labor and materials cost, using computer-application programs, if available.
 - 18.08 Select and match wood stock for compatibility of grain and color.
 - 18.09 Design and lay out cabinets, using a computer-assisted design (CAD) program, if available.
- 19.0 **UTILIZE POWER TOOLS SPECIFIC TO CABINET MAKING**--The student will be able to:
- 19.01 Operate both portable and stationary power tools, observing safety precautions.
 - 19.02 Select the correct power tools required for specific jobs.
 - 19.03 Maintain power tools according to the manufacturer's specifications.
- 20.0 **CONSTRUCT JOINTS**--The student will be able to:
- 20.01 Construct various types of joints, including:
 - a. butt
 - b. dado
 - c. rabbeted
 - d. lap
 - e. miter
 - f. splined
 - g. tongue-and-groove
 - h. mortise-and-tenon
 - 20.02 Install dowels in common wood joints.
 - 20.03 Install biscuit spline in common wood joints.
- 21.0 **CUT CASEWORK COMPONENTS**--The student will be able to:
- 21.01 Cut frame stiles and rails.
 - 21.02 Cut end, top, and bottom panels.
 - 21.03 Cut partitions and sleepers.
 - 21.04 Cut shelf panels.
 - 21.05 Cut skeleton frame stiles and rails.
 - 21.06 Cut a toe board and a back panel.
 - 21.07 Cut a casework top or countertop and a back splash.
 - 21.08 Cut drawer front, sides, back, and bottom.
 - 21.09 Cut wood drawer guides.
 - 21.10 Cut doors, such as:
 - a. solid
 - b. flexible
 - c. paneled
 - 21.11 Route or shape casework components.

- 22.0 **ASSEMBLE CASEWORK COMPONENTS**--The student will be able to:
- 22.01 Assemble face frame, panels, toe boards, and skeleton frame.
 - 22.02 Fasten a top or countertop and a back splash to casework.
 - 22.03 Assemble drawers.
 - 22.04 Assemble flexible and paneled doors.
 - 22.05 Install shelving.
 - 22.06 Attach trim, molding, and edge banding.
- 23.0 **CONSTRUCT CABINET DRAWERS**--The student will be able to:
- 23.01 Make various types of drawers, including:
 - a. overlay
 - b. lipped
 - c. flush
 - 23.02 Construct drawer guides.
- 24.0 **CONSTRUCT CABINET DOORS**--The student will be able to:
- 24.01 Make solid and tambour doors.
 - 24.02 Make a frame and panel door.
 - 24.03 Cut and set glass in a frame.
 - 24.04 Band edges of solid doors.
 - 24.05 Construct wood-door tracks.
- 25.0 **CONSTRUCT CURVED PIECES**--The student will be able to:
- 25.01 Cut a curved piece from solid stock.
 - 25.02 Make a curved piece by saw kerfing.
 - 25.03 Construct a curved piece, using curved segments.
 - 25.04 Construct a curved piece by laminating thin strips.
- 26.0 **PERFORM MILLWORK OPERATIONS**--The student will be able to:
- 26.01 Build shaped moldings to specifications.
 - 26.02 Cut built-up moldings.
 - 26.03 Cut a cornice.
- 27.0 **DEMONSTRATE PROBLEM-SOLVING SKILLS**--The student will be able to:
- 27.01 Organize and plan multiple tasks, utilizing various resources such as time, personnel, and materials.
 - 27.02 Analyze problems, identify the causes, and devise plans of action.
 - 27.03 Identify obstacles, generate alternatives, and choose the best alternatives.

**Florida Department of Education
STUDENT PERFORMANCE STANDARDS**

Course Number: 8722110
Course Title: Carpentry and Cabinetmaking 1
Course Credit: 1

COURSE DESCRIPTION:

The purpose of this course is to develop the competencies essential to the carpentry and cabinetmaking industry. These competencies relate to safety practices, tool- and equipment utilization, identification of building materials, fasteners and hardware, basic math, communication, and blueprint reading.

01.0 **APPLY SHOP AND OCCUPATIONAL SAFETY SKILLS**--The student will be able to:

- 01.01 Maintain a clean, orderly, and safe work area. (AT.8.1.4.3)
- 01.02 Transport, handle, and store materials safely. (AT.8.1.4.2)
- 01.03 Operate a fire extinguisher. (AT.8.1.4.3)
- 01.04 Qualify in basic first-aid procedures. (AT.8.1.4.3)
- 01.05 Identify common safety hazards. (AT.8.1.4.2), (LA.A.2.4.4), (LA.A.2.4.8)

02.0 **UTILIZE MANUAL AND POWER TOOLS**--The student will be able to:

- 02.01 Identify various hand and power tools. (AT.4.1.4.4), (LA.B.2.4.4)
- 02.02 Select correct tools for specific jobs. (AT.4.1.4.4)
- 02.03 Clean and care for tools and equipment. (AT.4.1.4.4)
- 02.04 Demonstrate proficiency in the safe use of hand tools and of portable and stationary power tools. (AT.4.1.4.4)
- 02.05 Read and use carpenter's measuring tools. (AT.4.1.4.4)

04.0 **IDENTIFY THE CHARACTERISTICS OF BUILDING MATERIALS**--The student will be able to:

- 04.01 Identify the grades and species of lumber. (MA.B.1.4.3), (SC.G.2.4.3), (LA.A.2.4.4), (LA.A.2.4.6), (LA.B.2.4.2), (LA.B.2.4.4)
- 04.02 Identify the actual and nominal sizes of lumber. (MA.B.4.4.1, (LA.B.2.4.2), (LA.B.2.4.4)
- 04.03 Identify the grades of plywood and wood products. (AT.4.1.4.2), (LA.A.2.4.4), (LA.A.2.4.6)
- 04.04 Identify defects and blemishes that affect the durability and strength of lumber. (AT.4.1.4.4), (SC.G.2.4.2)
- 04.05 Explain the effects of temperature extremes, chemical reaction, and moisture content on building materials. (SC.G.2.4.2), (LA.C.3.4.2), (LA.B.2.4.2)

05.0 **IDENTIFY FASTENERS AND HARDWARE**--The student will be able to:

- 05.01 Identify the fasteners commonly used in carpentry and/or cabinetmaking. (AT.4.1.4.4), (LA.B.2.4.2), (LA.B.2.4.4)

05.02 Identify the hardware commonly used in carpentry and/or cabinetmaking. (AT.4.1.4.4), (LA.B.2.4.2), (LA.B.2.4.4)

- 06.0 **APPLY APPROPRIATE BASIC MATH SKILLS**--The student will be able to:
- 06.01 Solve basic math problems related to carpentry and/or cabinetmaking, with and without a calculator; include geometry and algebra skills. (MA.A.3.4.3)
 - 06.02 Solve problems, using board, linear, foot, square-foot, and cubic-foot measurements. (MA.A.3.4.3)
- 07.0 **APPLY APPROPRIATE COMMUNICATION SKILLS**--The student will be able to:
- 07.01 Write logical and understandable statements. (LA.B.2.4.1), (LA.B.2.4.2), (LA.B.2.4.3), (LA.B.2.4.4)
 - 07.03 Follow written and oral instructions. (LA.A.2.4.4), (LA.A.2.4.6), (LA.A.2.4.7), (LA.A.2.4.8), (LA.C.1.4.1)
 - 07.04 Ask and answer questions coherently, directly, and concisely. (LA.C.3.4.1)
 - 07.05 Demonstrate appropriate telephone communication skills. (AT.4.1.4.4), (LA.C.3.4.1), (LA.D.1.4.2)
- 08.0 **READ BASIC BLUEPRINTS**--The student will be able to:
- 08.01 Read an architect's scale. (MA.B.2.4.1)
 - 08.03 Identify lines and blueprint symbols. (AT.4.1.4.4), (LA.A.1.4.3)

**Florida Department of Education
STUDENT PERFORMANCE STANDARDS**

Course Number: 8722120
Course Title: Carpentry and Cabinetmaking 2
Course Credit: 1

COURSE DESCRIPTION:

The purpose of this course is to develop in-depth knowledge and skills related to safety, manual and power tools, the construction industry in America, math applications, communication, and blueprint reading and to develop the competencies essential to the carpentry and cabinetmaking industry. These competencies relate to fasteners and hardware, employability skills, customer relations, and entrepreneurship.

01.0 **APPLY SHOP AND OCCUPATIONAL SAFETY SKILLS**--The student will be able to:

- 01.06 Identify and explain the proper use of common personal protective equipment (hard hats, safety glasses, safety shoes, etc.). (AT.8.1.4.1), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.07 Describe "Florida's Right-to-Know" Law, including the Material Safety Data Sheets (MSDS). (AT.8.1.4.3), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.08 Explain the purpose of the Occupational Safety and Health Administration (OSHA). (AT.8.1.4.3), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.09 Identify health-related problems that may result from exposure to hazardous materials. (AT.8.1.4.2), (SC.G.2.4.6), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.10 Describe the proper precautions for handling hazardous materials. (AT.8.1.4.2), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.11 Explain eligibility and the procedures for obtaining worker's compensation. (AT.6.1.4.1), (LA.C.3.4.2), (LA.B.2.4.2)
- 01.12 Explain the importance of complying with ADA requirements for handicapped accessibility. (AT.9.1.4.2), (LA.C.3.4.2), (LA.B.2.4.2)

03.0 **DESCRIBE THE IMPORTANCE OF THE CONSTRUCTION INDUSTRY IN THE AMERICAN ECONOMY**--The student will be able to:

- 03.01 Describe the role of the construction industry within the free-enterprise system. (AT.7.1.4.1), (LA.C.3.4.2), (LA.B.2.4.1), (LA.B.2.4.2), (LA.B.2.4.3)
- 03.02 Identify career-progression opportunities in the carpentry and cabinetmaking industry. (AT.1.1.4.2), (LA.C.3.4.2), (LA.B.2.4.1), (LA.B.2.4.2), (LA.B.2.4.3)
- 03.03 Describe current issues, topics, and materials in the building-construction industry. (AT.7.1.4.2), (LA.C.3.4.2), (LA.B.2.4.1), (LA.B.2.4.2), (LA.B.2.4.3)

06.0 **APPLY APPROPRIATE BASIC MATH SKILLS**--The student will be able to:

- 06.03 Solve problems for volume, weight, area, circumference, and perimeter measurements for rectangles, squares, and cylinders. (MA.C.2.4.1)

- 06.04 Measure horizontal and vertical surfaces, using, millimeters, feet, and inches. (MA.A.3.4.3)
- 07.0 **APPLY APPROPRIATE COMMUNICATION SKILLS**--The student will be able to:
- 07.02 Interpret the graphs, charts, diagrams, and tables commonly used in the carpentry or cabinetmaking industry. (MA.D.1.4.1), (LA.A.2.4.4), (LA.A.2.4.6), (LA.A.2.4.8), (LA.B.2.4.4)
- 08.0 **READ BASIC BLUEPRINTS**--The student will be able to:
- 08.02 Identify architectural and engineering elevations, perspectives, and schedules. (AT.4.1.4.4), (LA.2.4.4), (LA.A.2.4.6)
- 09.0 **DEMONSTRATE EMPLOYABILITY SKILLS**--The student will be able to:
- 09.01 Conduct a job search and identify advanced-training opportunities, including apprenticeship programs, if appropriate. (AT.9.1.4.1), (AT.3.1.4.5), (LA.B.2.4.4)
- 09.02 Obtain information about a job. (AT.3.1.4.5), (AT.1.1.4.1), (LA.B.2.4.4), (LA.B.2.4.4)
- 09.03 Identify documents that may be required for a job application. (AT.1.1.4.1), (LA.A.2.4.4), (LA.A.2.4.6), (LA.B.2.4.4)
- 09.04 Complete a job-application form. (AT.9.1.4.1), (LA.B.1.4.3)
- 09.05 Demonstrate competence in job-interview techniques. (AT.9.1.4.1)
- 09.06 Demonstrate productive work habits and positive attitudes. (AT.9.1.4.1)
- 09.07 Demonstrate knowledge of how to make job changes appropriately. (AT.9.1.4.2)
- 09.08 Identify ethical and responsible practices. (AT.9.1.4.1), (HE.B.3.4.2)
- 09.09 Demonstrate acceptable hygiene practices and a professional appearance. (HE.B.1.4.1)
- 09.10 Apply the principles of time management, work simplification, and teamwork when performing assigned tasks. (AT.2.1.4.1), (HE.B.1.4.1)
- 09.11 Explain the importance of taking pride in the quality of work performed. (AT.9.1.4.1), (HE.B.1.4.1), (LA.C.3.4.2)
- 09.12 Describe the importance of a drug-free workplace and industry policy toward drug and alcohol use. (HE.A.1.4.2), (LA.C.3.4.2)
- 09.13 Describe the ramifications of a poor driving record on employability opportunities. (HE.B.1.4.1), (LA.C.3.4.2)
- 10.0 **DEMONSTRATE POSITIVE CUSTOMER-RELATIONS SKILLS**--The student will be able to:
- 10.01 Exercise self-control. (AT.9.1.4.2), (HE.B.3.4.5)
- 10.02 Identify and demonstrate appropriate responses to criticism. (AT.9.1.4.2), (HE.B.3.4.5), (LA.C.1.4.4)
- 10.03 Recognize basic human relations as they relate to success in the industry. (AT.9.1.4.1), (HE.B.3.4.5)
- 10.04 Respond to customer complaints in a positive, professional manner. (AT.9.1.4.1), (HE.B.3.4.4), (LA.C.1.4.3)

10.05 Demonstrate respect for people and property. (AT.81.43),
(AT.9.1.4.1), (HE.B.3.4.2)

11.0 **DEMONSTRATE AN UNDERSTANDING OF ENTREPRENEURSHIP**--The student will be able to:

11.01 Define "entrepreneurship". (AT.2.3.4.1)

11.02 Describe the importance of entrepreneurship to the American economy and the role of small business in the free-enterprise system. (SS.D.2.4.4), (LA.C.3.4.2)

11.03 Debate the advantages and disadvantages of business ownership. (AT.2.3.4.2), (LA.C.3.4.5)

July 2007

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Number: 8722130
Course Title: Carpentry and Cabinetmaking 3
Course Credit: 1

COURSE DESCRIPTION:

The purpose of this course is to develop the competencies essential to the carpentry and cabinetmaking industry. These competencies relate to the preparation of cabinets for finish and the application of the finish. The content includes safety in the use of these finishes, fillers and solvents.

12.0 **PREPARE CABINETS FOR FINISH**--The student will be able to:

- 12.01 Fill nail and screw holes.
- 12.02 Install wood plugs in prepared holes.
- 12.03 Sand a cabinet and joints for finish.
- 12.04 select and apply proper filler.
- 12.05 Sand wood surfaces for finishing.
- 12.06 Stain, bleach, fill, and seal wood surfaces, as needed.

13.0 **APPLY FINISH**--The student will be able to:

- 13.01 Apply various types of finishes, including:
 - a. lacquer-based
 - b. water-based
 - c. oil-based
 - d. enamel
 - e. polyurethane
- 13.02 Apply the types of finishes that the local market demands.
- 13.03 Observe safety precautions when applying finishes, including wearing respirator and protective clothing approved by National Institute of Occupational Safety and Health (NIOSH).

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Number: 8720140
Course Title: Cabinetmaking 4
Course Credit: 1

COURSE DESCRIPTION:

This course is designed to provide students with an in-depth knowledge of cabinet finishing. The content includes training in the assembly of cabinet components and how to fasten stock and joints.

14.0 FASTEN STOCK AND JOINTS--The student will be able to:

- 14.01 Identify types of glues and fasteners and describe their applications.
- 14.02 Fasten stock with glue and clamps.
- 14.03 Fasten stock and joints with appropriate fasteners, such as:
 - a. nails
 - b. staples
 - c. screws
 - d. bolts
- 14.04 Fill and finish nail and screw holes with fillers and plugs.
- 14.05 Glue and clamp stock, using various techniques.

15.0 ASSEMBLE CABINET COMPONENTS--The student will be able to:

- 15.01 Install hardware, such as hinges, catches, pulls, knobs, and guides, on assembled cabinets.
- 15.02 Install fasteners.
- 15.03 Install drawers.
- 15.04 Install various types of doors, including:
 - a. overlay
 - b. lipped
 - c. flush
- 15.05 Install adjustable shelving.
- 15.06 Install glass panels and metal grills.
- 15.07 Install specialty hardware, such as a lazy Susan, wire racks, and "pull-outs."

Florida Department of Education
STUDENT PERFORMANCE STANDARDS

Course Number: 8720150
Course Title: Cabinetmaking 5
Course Credit: 1

COURSE DESCRIPTION:

This course is designed to provide students with the competencies needed and provides students with the in-depth training in the installation and lamination of cabinets.

16.0 **INSTALL CABINETS**--The student will be able to:

- 16.01 Load and secure casework for hauling.
- 16.02 Check walls and floors for level and plumb.
- 16.03 Determine fasteners for block or walls.
- 16.04 Install upper and lower cabinets and other casework.
- 16.05 Fasten a suspended cabinet unit to ceiling.
- 16.06 Install countertops, including sink cutouts and back splash.
- 16.07 Cut and install molding and trim.
- 16.08 Adjust doors and drawers.
- 16.09 Clean work site.

17.0 **APPLY LAMINATES**--The student will be able to:

- 17.01 Lay out and cut core stock to specifications.
- 17.02 Lay out and cut laminate to specification.
- 17.03 Apply adhesive.
- 17.04 Apply laminate to core stock.
- 17.05 Trim and file plastic laminate edges.
- 17.06 Clean laminated surfaces.
- 17.07 Laminate a curved surface.
- 17.08 Repair laminate defects.