

Material ID#: 19845
Course# - Course Title: 8722010 - Carpentry 1

Strand Standard or Performance Skill	Curriculum	Module ID #	Module	Section #, Page # or Asset where covered	Direct Link to Asset (if applicable)
Strand 1: Students will participate in personal and leadership development activities through SkillsUSA or another appropriate career and technical student organization					
Student will use communication skills to effectively communicate with others	Core	107	Basic Communication Skills	1.1.0	
Understand when it is appropriate to listen and to speak	Core	107	Basic Communication Skills	1.1.0	
Understand and follow verbal and written instructions for classroom and laboratory activities	Core	107	Basic Communication Skills	2.0.0	
Student will effectively use teamwork to respectfully work with others	Core	108	Basic Employability Skills	3.2.1	
Identify and understand different roles in working with a team	Core	108	Basic Employability Skills	3.2.1	
Student will use critical thinking and problem-solving skills	Core	108	Basic Employability Skills	2.2.0	
Analyze the cause of the problem	Core	108	Basic Employability Skills	2.2.1	
Develop a solution to address the problem	Core	108	Basic Employability Skills	2.2.3	
Implement the plan	Core	108	Basic Employability Skills	2.2.4	
Evaluate the effectiveness of the plan	Core	108	Basic Employability Skills	2.2.5	
Student will be dependable, reliable, steady, trustworthy, and consistent in performance and behavior	Core	108	Basic Employability Skills	3.0.0	
Set and meet goals on attendance and punctuality	Core	108	Basic Employability Skills	3.1.3	
Prioritize, plan, and manage work to complete assignments and projects on time	Core	108	Basic Employability Skills	2.3.0	
Student will be accountable for results	Core	108	Basic Employability Skills	2.2.5	
*Use an achievement chart for activities and behaviors in class that encourages a personal evaluation of classroom performance	Core	108	Basic Employability Skills	3.5.1	
*File a regular written report on progress toward completion of assignments and projects	Core	108	Basic Employability Skills	3.5.1	
Be familiar with the legal requirements and expectations of the course					
*Be familiar with the course disclosure statement and all requirements for successful completion of the course					
*Demonstrate workplace ethics, e.g., fair, honest, disciplined					
Strand 2: Students will participate in work-place readiness activities					
Student will demonstrate employability skills	Core	108	Basic Employability Skills		
*Use a career search network to find career choices	Core	100	Build Your Future in Construction	3.2.0	
*Write a resume including a list of demonstrated skills	Core	107	Basic Communication Skills	2.0.0	
*Write a letter of application	Core	107	Basic Communication Skills	2.0.0	
*Complete a job application	Core	107	Basic Communication Skills	2.0.0	
*Participate in an actual or simulated job interview	Core	107	Basic Communication Skills	1.3.0	
Student will participate in a work-based learning experience outside the classroom					
*Student will plan and implement a work-based learning experience aligned with their career goal					
Strand 3: Students will understand and demonstrate the safe use of hand and power tools					
Identify the hand and power tools commonly used by carpenters and describe their uses	Core	00103 and 00104	Introduction to Hand Tools, Introduction to Power Tools		
*Hammer, screwdrivers, pliers, chisels, levels, squares, clamps, saws	Core	103	Introduction to Hand Tools	1.1.0, 1.2.0, 1.3.0, 3.1.0, 3.2.0	
*Circular saw, table saw, power miter saws, reciprocating saws, portable sanders, portable drill and screwguns, pneumatic/cordless nailers and staplers, power-actuated fastening tools	Core	104	Introduction to Power Tools	2.1.0, 2.4.0, 2.5.0, 4.0.0	
Use hand tools in a safe and appropriate manner	Core	103	Introduction to Hand Tools		
*Follow all safety precautions in the manufacturer's instruction manual					
*Always wear safety glasses and other appropriate safety equipment when working with hand and power tools	Core	101	Basic Safety	5.1.2	
State the general safety rules for operating all power tools, regardless of type					
State the general safety rules for properly maintaining all power tools, regardless of type					
Identify the portable power tools commonly used by carpenters and describe the appropriate and safe manner of using them	Core	104	Introduction to Power Tools	Full module	
Performance Skills					
Understand and demonstrate the safe use of hand and power tools	Core	00103 and 00104	Introduction to Hand Tools, Introduction to Power Tools		Performance Tasks
*Identify the hand and power tools commonly used by carpenters and describe their uses	Core	00103 and 00104	Introduction to Hand Tools, Introduction to Power Tools		Performance Tasks
*Use hand tools in a safe and appropriate manner	Core	103	Introduction to Hand Tools		Performance Tasks
*State the general safety rules for operating all power tools, regardless of type					
*State the general safety rules for properly maintaining all power tools, regardless of type					
*Identify the portable power tools commonly used by carpenters and describe the appropriate and safe manner of using them					
Strand 4: Students will understand and demonstrate the use of wood building materials, fasteners, and adhesives					
Identify various types of imperfections that are found in lumber	General Carpentry	27102	Building Materials and Fasteners	2.1.7	
*Holes, knots, pitch, decay	General Carpentry	27102	Building Materials and Fasteners	2.2.1	
Interpret grade markings on lumber and plywood	General Carpentry	27102	Building Materials and Fasteners	2.1.5	
*grade designation-grade name, number, or abbreviation	General Carpentry	27102	Building Materials and Fasteners	2.1.5	
*species identification-indicates species individually or in combination	General Carpentry	27102	Building Materials and Fasteners	2.1.3	
*condition of seasoning at the time of surfacing					
Identify the uses of pressure-treated lumber	General Carpentry	27102	Building Materials and Fasteners	2.2.0	
*landscape timbers, sill plates, foundations, decks, porches					
Identify the safety precautions associated with pressure-treated lumber	General Carpentry	27102	Building Materials and Fasteners	1.1.3	
*when cutting pressure-treated lumber, always wear eye protection and dust mask	General Carpentry	27102	Building Materials and Fasteners	1.1.3	
*wash any skin that is exposed while cutting or handling the lumber	General Carpentry	27102	Building Materials and Fasteners	1.1.3	
*wash clothing that is exposed to sawdust separately from other clothing	General Carpentry	27102	Building Materials and Fasteners	1.1.3.	
*Do not burn pressure-treated lumber as the ash poses a health hazard	General Carpentry	27102	Building Materials and Fasteners	1.1.3	
*be sure to read and follow the manufacturer's safety instruction	General Carpentry	27102	Building Materials and Fasteners	1.1.3	
Describe the proper method of caring for lumber and wood building materials at the job site	General Carpentry	27102	Building Materials and Fasteners	1.1.3	
State the uses of various types of engineered lumber	General Carpentry	27102	Building Materials and Fasteners	2.3.0	
*headers, floor joists	General Carpentry	27102	Building Materials and Fasteners	2.3.0	
Identify the different types of anchors and their uses	General Carpentry	27102	Building Materials and Fasteners	4.0.0	
*anchor bolts, expansion bolts, earthquake straps, allow something to be securely fastened to masonry or drywall	General Carpentry	27102	Building Materials and Fasteners	4.0.0	
List the basic nail and staple types and their uses	General Carpentry	27102	Building Materials and Fasteners	4.1.1	
*nails: common and finish	General Carpentry	27102	Building Materials and Fasteners	4.1.1	
*chisel staples	General Carpentry	27102	Building Materials and Fasteners	4.1.3	
Describe the common types of adhesives used in construction work and explain their uses	General Carpentry	27102	Building Materials and Fasteners	4.3.0	
*construction adhesives	General Carpentry	27102	Building Materials and Fasteners	4.3.2	
*drywall adhesives	General Carpentry	27102	Building Materials and Fasteners	4.3.0	
*contact cement	General Carpentry	27102	Building Materials and Fasteners	4.3.0	
Performance Skills					
Understand and demonstrate the use of wood building materials, fasteners, and adhesives	General Carpentry	27102	Building Materials and Fasteners	4.0.0	
*Identify various types of imperfections that are found in lumber	General Carpentry	27102	Building Materials and Fasteners	2.1.3	
*Interpret grade markings on lumber and plywood	General Carpentry	27102	Building Materials and Fasteners	2.1.5	
*Identify the uses of pressure-treated lumber	General Carpentry	27102	Building Materials and Fasteners	2.2.0	
*Identify the safety precautions associated with pressure-treated lumber.	General Carpentry	27102	Building Materials and Fasteners	1.1.3	
*Describe the proper method of caring for lumber and wood building materials at the job site	General Carpentry	27102	Building Materials and Fasteners	3.1.4	
*State the uses of various types of engineered lumber	General Carpentry	27102	Building Materials and Fasteners	2.3.0	
*List the basic nail and staple types and their uses	General Carpentry	27102	Building Materials and Fasteners	4.1.1	
*Identify the different types of anchors and their uses.	General Carpentry	27102	Building Materials and Fasteners	4.0.0	
*Describe the common types of adhesives used in construction work and explain their uses	General Carpentry	27102	Building Materials and Fasteners	4.3.0	
Strand 4: Students will understand and demonstrate the uses of concrete and reinforcing materials					
Perform volume quantities and estimates for concrete quantity requirements					
*Calculate cubic yards	General Carpentry	27102	Building Materials and Fasteners	2.6.2	
Identify types and sizes of concrete reinforcement bars and describe their uses					
*Rebar					
*Wire mesh					
Recognize four kinds of footings					
*Continuous or spread					
*Stepped					
*Pier					
*Spot					
Recognize types of concrete pours that require the construction of edge forms					
*Slabs with or without a foundation					
*Driveways					
*Sidewalks					
*Approaches					
Identify the parts of edge forms and explain their purpose.					
Explain the purpose of a screed and identify the different types of screeds					
Demonstrate the ability to set screeds on grade.					
Identify the various types of concrete forms.					
Identify the components of each type of form					
Explain the safety procedures associated with using concrete forms					
Erect, plumb, and brace selected concrete forms, including:					
*Basic wall form with walers and strongbacks					
*Ganged wall form					
*Radius wall form					
*Column form					
*Stair form					
Performance Skills					
Understand and demonstrate the uses of concrete and reinforcing materials					
*Perform volume quantities and estimates for concrete quantity requirements					
*Identify types and sizes of concrete reinforcement bars and describe their uses					
*Recognize four kinds of footings.					
*Recognize types of concrete pours that require the construction of edge forms.					
*Identify the parts of edge forms and explain their purpose.					
*Explain the purpose of a screed and identify the different types of screeds					
*Demonstrate the ability to set screeds on grade					
*Identify the various types of concrete forms					
*Identify the components of each type of form					
*Explain the safety procedures associated with using concrete forms					
*Erect, plumb, and brace selected concrete forms					
STRAND 6 Students will understand and demonstrate framing of flooring systems, wall and ceilings and roofing systems					
Read and understand drawings and specifications to determine floor system requirements.	General Carpentry	27105	Floor Systems	1.0.0	
Identify floor and sill framing and support members	General Carpentry	27105	Floor Systems	3.0.0	
Name the methods used to fasten sills to the foundation	General Carpentry	27105	Floor Systems	3.1.1	
List and recognize different types of floor joists.	General Carpentry	27105	Floor Systems	3.3.0	
List and recognize different types of flooring materials	General Carpentry	27105	Floor Systems	3.5.0	
Explain the purposes of subflooring	General Carpentry	27105	Floor Systems	3.4.0	
Match selected fasteners used in floor framing to their correct uses	General Carpentry	27105	Floor Systems	4.1.7	
Demonstrate the ability to:	General Carpentry	27105	Floor Systems	4.1.0	
*Layout and construct a floor assembly.	General Carpentry	27105	Floor Systems	4.1.0	
*Install a single floor system using tongue and groove plywood/OSB panels	General Carpentry	27105	Floor Systems	3.4.3	
Identify the components of a wall.	General Carpentry	27111	Wall System Components	1.0.0	
Describe the procedure for laying out a wood frame wall, including plates, corner posts, door and window openings, partition T's, bracing, and firestops	General Carpentry	27111	Wall System Components	2.0.0	
Describe the common materials and methods used for installing sheathing on walls.	General Carpentry	27111	Wall System Components	3.2.3	
Layout, assemble, erect, and brace exterior walls for a frame building	General Carpentry	27111	Wall System Components	3.2.0	
Understand the terms associated with roof framing.	General Carpentry	27112	Roof Framing	2.2.0	
Identify the roof framing members used in gable and hip roofs	General Carpentry	27112	Roof Framing	4.0.0	
Identify the various types of trusses used in roof framing	General Carpentry	27112	Roof Framing	5.0.0	
Use the rafter framing square, speed square, and calculator in laying out a roof	General Carpentry	27112	Roof Framing	3.0.0	
Identify various types of sheathing used in roof construction	General Carpentry	27112	Roof Framing	4.2.1	
Erect a gable roof using trusses	General Carpentry	27112	Roof Framing	5.1.0	
Understand the use and installation of roofing members.	General Carpentry	27112	Roof Framing	2.0.0	
Understand the members and installation of stairs	General Carpentry	27110	Basic Stair Layout	1.1.0	
Understand and demonstrate framing of flooring systems, wall and ceilings and roofing systems.	General Carpentry	27112	Roof Framing	1.0.0	
*Read and understand drawings and specifications to determine floor system requirements.	General Carpentry	27105	Floor Systems	1.0.0	
*Identify floor and sill framing and support members.	General Carpentry	27105	Floor Systems	3.0.0	
*Name the methods used to fasten sills to the foundation	General Carpentry	27105	Floor Systems	3.1.1	
*List and recognize different types of floor joists.	General Carpentry	27105	Floor Systems	3.3.0	
*List and recognize different types of flooring materials.	General Carpentry	27105	Floor Systems	3.5.0	
*Explain the purposes of subflooring.	General Carpentry	27105	Floor Systems	3.4.0	
*Match selected fasteners used in floor framing to their correct uses	General Carpentry	27105	Floor Systems	4.1.7	
*Demonstrate the ability to layout and construct a floor assembly	General Carpentry	27105	Floor Systems	4.1.0	
*Identify the components of a wall.	General Carpentry	27111	Wall Systems	1.0.0	
*Describe the procedure for laying out a wood frame wall, including plates, corner posts, door and window openings, partition T's, bracing, and firestops	General Carpentry	27111	Wall Systems	2.1.0	
*Describe the common materials and methods used for installing sheathing on walls	General Carpentry	27111	Wall Systems	3.2.3	

*Layout, assemble, erect, and brace exterior walls for a frame building	General Carpentry	27111 Wall Systems	3.0.0
*Understand the terms associated with roof framing	General Carpentry	27112 Roof Framing	2.0.0
*Identify the roof framing members used in gable and hip roofs	General Carpentry	27112 Roof Framing	2.0.0
*Identify the various types of trusses used in roof framing	General Carpentry	27112 Roof Framing	5.1.0
* Use the rafter framing square, speed square, and calculator in laying out a roof	General Carpentry	27112 Roof Framing	4.1.0
*Identify various types of sheathing used in roof construction	General Carpentry	27112 Roof Framing	4.2.1
*Erect a gable roof using trusses	General Carpentry	27112 Roof Framing	5.0.0
*Understand the use and installation of roofing members	General Carpentry	27112 Roof Framing	5.1.0
* Understand the members and installation of stairs	General Carpentry	27110 Basic Stair Layout	1.0.0
STRAND 7 Students will understand and demonstrate the installation of windows and exterior doors			
Identify various types of fixed, sliding, and swinging windows	General Carpentry	27109 Building Envelope Systems	2.1.0
Identify the steps of a window installation	General Carpentry	27109 Building Envelope Systems	2.1.6
*Ensure that the window is closed	General Carpentry	27109 Building Envelope Systems	2.1.6
*Removing shipping blocks	General Carpentry	27109 Building Envelope Systems	2.1.6
*Install window in rough opening	General Carpentry	27109 Building Envelope Systems	2.1.6
*Shim as necessary	General Carpentry	27109 Building Envelope Systems	2.1.6
*Check sill for level	General Carpentry	27109 Building Envelope Systems	2.1.6
*Plumb the side jambs	General Carpentry	27109 Building Envelope Systems	2.1.6
*Recheck for level and plumb	General Carpentry	27109 Building Envelope Systems	2.1.6
*Nail	General Carpentry	27109 Building Envelope Systems	2.1.6
*Install insulation	General Carpentry	27109 Building Envelope Systems	2.1.6
Install a window.	General Carpentry	27109 Building Envelope Systems	2.1.6
Identify the common types of exterior doors	General Carpentry	27109 Building Envelope Systems	3.1.0
*Garage	General Carpentry	27109 Building Envelope Systems	3.1.2
*Entry	General Carpentry	27109 Building Envelope Systems	3.1.1
Identify the threshold	General Carpentry	27109 Building Envelope Systems	3.1.5
Install a pre-hung exterior door with weather-stripping	General Carpentry	27109 Building Envelope Systems	3.1.1
Identify the various types of locksets used on exterior doors and explain how they are installed.	General Carpentry	27109 Building Envelope Systems	3.0.0
Install a lockset.	General Carpentry	27109 Building Envelope Systems	3.0.0
Performance Skills			
Understand and demonstrate installation of windows and exterior doors	General Carpentry	27109 Building Envelope Systems	2.1.6, 3.1.3
*Identify various types of fixed, sliding, and swinging windows.	General Carpentry	27109 Building Envelope Systems	2.1.2
*Identify the steps of a window installation	General Carpentry	27109 Building Envelope Systems	2.1.6
*Install a window	General Carpentry	27109 Building Envelope Systems	2.1.6
* Identify the common types of exterior doors	General Carpentry	27109 Building Envelope Systems	3.0.0
*Identify the threshold	General Carpentry	27109 Building Envelope Systems	3.1.5
*Install a pre-hung exterior door with weather-stripping	General Carpentry	27109 Building Envelope Systems	3.1.4
*Identify the various types of locksets used on exterior doors and explain how they are installed	General Carpentry	27109 Building Envelope Systems	3.0.0
*Install a lockset	General Carpentry	27109 Building Envelope Systems	3.0.0
STRAND 8 Students will understand and demonstrate the installation of roofing materials			
Identify roofing terms and correct installation methods.	General Carpentry	27112 Roof Framing	2.0.0
* Square	General Carpentry	27112 Roof Framing	2.2.0
*Coverage	General Carpentry	27112 Roof Framing	2.2.0
*Exposure	General Carpentry	27112 Roof Framing	2.2.0
*Rake	General Carpentry	27112 Roof Framing	2.2.0
*Underlayment	General Carpentry	27112 Roof Framing	2.2.0
* Flashing	General Carpentry	27112 Roof Framing	2.2.0
* Weather guard	General Carpentry	27112 Roof Framing	2.2.0
*Vents	General Carpentry	27112 Roof Framing	2.2.0
*Gutters	General Carpentry	27112 Roof Framing	2.2.0
Identify different roofing materials	General Carpentry	27112 Roof Framing	2.2.0
* Asphalt – standard and metric	General Carpentry	27112 Roof Framing	2.2.0
* Cedar	General Carpentry	27112 Roof Framing	2.2.0
* Tile	General Carpentry	27112 Roof Framing	2.2.0
*Metal	General Carpentry	27112 Roof Framing	2.2.0
Performance Skills			
*Identify roofing terms and correct installation methods	General Carpentry	27112 Roof Framing	2.2.0
*Identify different roofing materials.	General Carpentry	27112 Roof Framing	2.2.0
STRAND 9 Students will understand and demonstrate the installation of insulation materials.			
Identify the types of installation			
*Flexible – fiberglass blankets			
*Loose fill - blown			
*Rigid – sheet or board form			
* Reflective – aluminum foil bonded			
Explain terms related to insulation			
*R-value			
*Vapor barrier			
Performance Skills			
Understand and demonstrate installation of insulation materials.			
* Identify the types of installation.			
* Explain terms related to insulation.			
STRAND 10 Students will understand and demonstrate drywall installation and finishing.			
Identify the different types of gypsum wallboard (drywall) and their uses.			
Select the type of thickness of drywall required for specific installations.			
Select fasteners for drywall installation.			
* Nails			
* Drywall Screws			
* Adhesives			
Explain the fastener schedules for different types of drywall installations.			
Perform single-layer and multi-layer drywall installations using different types of fastening systems elect fasteners for drywall installation			
* Nails			
* Screws			
Identify the hand tools used in drywall finishing and demonstrate the ability to use these tools			
Identify the automatic tools used in drywall finishing.			
Identify the materials used in drywall finishing and state the purpose and use of each type of material, including			
* Compounds			
*Joint reinforcing tapes			
* Trim materials			
* Textures and coatings			
Performance Skills			
Understand and demonstrate drywall installation and finishing.			
* Identify the different types of gypsum wallboard (drywall) and their uses.			
* Select the type of thickness of drywall required for specific installations.			
* Select fasteners for drywall installation			
*Explain the fastener schedules for different types of drywall installations.			
*Perform single-layer and multi-layer drywall installations using different types of fastening systems elect fasteners for drywall installation			
*Identify the hand tools used in drywall finishing and demonstrate the ability to use these tools			
*Identify the automatic tools used in drywall finishing.			
*Identify the materials used in drywall finishing and state the purpose and use of each type of material.			
STRAND 11 Students will understand and demonstrate interior-finishing.			
Identify various types of door jambs and frames and demonstrate the installation procedures for placing selected door jambs and frames in different types of interior partitions.			
Identify different swings of interior doors.			
Demonstrate the procedure for placing and hanging a selected door			
Identify the different types of standard moldings and describe their uses.			
Make square and miter cuts using a miter saw.			
Make coped joint cuts using a coping saw.			
Install interior trim, including:			
*Door trim			
*Window trim			
* Base trim			
* Ceiling trim			
Performance Skills			
Understand and demonstrate interior-finishing			
*Identify various types of door jambs and frames and demonstrate the installation procedures for placing selected door jambs and frames in different types of interior partitions			
*Identify different swings of interior doors.			
* Demonstrate the procedure for placing and hanging a selected door.			
*Identify the different types of standard moldings and describe their uses.			
* Make square and miter cuts using a miter saw.			
*Make coped joint cuts using a coping saw			
*Install interior trim			
STRAND 12 Students will read construction plans.			
Demonstrate the ability to read and understand construction plans.	General Carpentry	27113 Construction Plans and Drawings	1.0.0
Explain why drawings are important in the construction industry.	General Carpentry	27113 Construction Plans and Drawings	2.1.2
Understand the different types of construction plans.	General Carpentry	27113 Construction Plans and Drawings	1.1.0
*Plot plans	General Carpentry	27113 Construction Plans and Drawings	1.1.2
*Floor plans	General Carpentry	27113 Construction Plans and Drawings	1.1.4
*Elevations	General Carpentry	27113 Construction Plans and Drawings	1.1.6
* Perspective/3D	General Carpentry	27113 Construction Plans and Drawings	1.1.7
*Footings and foundations	General Carpentry	27113 Construction Plans and Drawings	1.1.3
* Electrical	General Carpentry	27113 Construction Plans and Drawings	1.1.12
* Mechanical	General Carpentry	27113 Construction Plans and Drawings	1.1.12
* Plumbing	General Carpentry	27113 Construction Plans and Drawings	1.1.12
Performance Skills			
Read construction plans	General Carpentry	27113 Construction Plans and Drawings	1.0.0
*Demonstrate the ability to read and understand construction plans	General Carpentry	27113 Construction Plans and Drawings	1.0.0
* Explain why drawings are important in the construction industry	General Carpentry	27113 Construction Plans and Drawings	2.1.2
*• Understand the different types of construction plans.	General Carpentry	27113 Construction Plans and Drawings	1.1.0