

Carpentry I Competencies

Demonstrating Workplace Readiness Skills: Personal Qualities and People Skills

1. Demonstrate positive work ethic.
2. Demonstrate integrity.
3. Demonstrate teamwork skills.
4. Demonstrate self-representation skills.
5. Demonstrate diversity awareness.
6. Demonstrate conflict-resolution skills.
7. Demonstrate creativity and resourcefulness.

Demonstrating Workplace Readiness Skills: Professional Knowledge and Skills

8. Demonstrate effective speaking and listening skills.
9. Demonstrate effective reading and writing skills.
10. Demonstrate critical-thinking and problem-solving skills.
11. Demonstrate healthy behaviors and safety skills.
12. Demonstrate an understanding of workplace organizations, systems, and climates.
13. Demonstrate lifelong-learning skills.
14. Demonstrate job-acquisition and advancement skills.
15. Demonstrate time-, task-, and resource-management skills.
16. Demonstrate job-specific mathematics skills.
17. Demonstrate customer-service skills.

Demonstrating Workplace Readiness Skills: Technology Knowledge and Skills

18. Demonstrate proficiency with technologies common to a specific occupation.
19. Demonstrate information technology skills.
20. Demonstrate an understanding of Internet use and security issues.
21. Demonstrate telecommunications skills.

Examining All Aspects of an Industry

22. Examine aspects of planning within an industry/organization.
23. Examine aspects of management within an industry/organization.
24. Examine aspects of financial responsibility within an industry/organization.
25. Examine technical and production skills required of workers within an industry/organization.
26. Examine principles of technology that underlie an industry/organization.
27. Examine labor issues related to an industry/organization.
28. Examine community issues related to an industry/organization.
29. Examine health, safety, and environmental issues related to an industry/organization.

Addressing Elements of Student Life

30. Identify the purposes and goals of the student organization.
31. Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.
32. Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects.
33. Identify Internet safety issues and procedures for complying with acceptable use standards.

Applying Basic Construction Safety Standards (Core Safety)

34. Comply with federal, state, and local safety legal requirements, including OSHA, VOSHA, and EPA.
35. Identify personal protective equipment (PPE) requirements.
36. Inspect and maintain a safe working environment.
37. Explain safe working practices around electrical hazards.
38. Identify emergency first aid procedures.
39. Identify the types of fires and the methods used to extinguish them.
40. Inspect course-specific hand and power tools to visually identify defects.

41. Demonstrate lifting and carrying techniques.
42. Demonstrate safe laddering techniques.
43. Demonstrate safe scaffolding techniques.
44. Report personal injuries, environmental, and equipment safety violations to the appropriate authority.
45. Earn the OSHA 10 card.
46. Pass a safety exam for shop/site safety and specific tool use.

Applying Hand and Power Tool Safety and Maintenance

47. Identify the basic hand tools and commonly used power tools used in carpentry.
48. Maintain hand and power tools.

Applying Mathematics Related to Carpentry and Construction

49. Add, subtract, multiply, and divide whole numbers, with and without a calculator.
50. Add, subtract, multiply, and divide fractions.
51. Add, subtract, multiply, and divide decimals, with and without a calculator.
52. Convert decimals to percents and percents to decimals.
53. Convert fractions to decimals and decimals to fractions.
54. Identify units of length, weight, volume, and temperature.
55. Identify the basic geometric formulas for shapes common to carpentry.

Reading Blueprints

56. Identify basic blueprint terms, components, and symbols.
57. Identify different classifications of drawings.
58. Interpret scale.

Performing Basic Carpentry Skills

59. Communicate verbally and in writing, using construction terminology.
60. Identify communication technology and hand signals common to the construction site.
61. Check stock and assemblies for squareness.
62. Measure materials, using a standard measuring device.
63. Determine the levelness and plumbness of surfaces.
64. Handle and store materials.
65. Identify materials.

Cutting and Shaping Stock

66. Crosscut and rip saw stock to size, using hand and power tools.
67. Bore holes, using hand and power tools.
68. Square stock to 90 degrees.
69. Cut a miter joint, using hand and power tools.

Working with Fasteners

70. Apply clamping devices.
71. Fasten stock with metal fasteners (e.g., nails, screws, staples).

Identifying Elements of Foundations and Forms

72. Describe the functions of a builder's level and a laser level.
73. Identify form maintenance.

Identifying the Elements of Floors

74. Identify the sill plate.
75. Identify a solid or composite wood beam/girder.
76. Identify the lally (i.e., basement pole) column.
77. Lay out floor framing detail on the sill plate.
78. Identify floor joists.
79. Identify the floor opening.
80. Identify bridging and blocking.
81. Identify subfloor sheathing.
82. Identify subfloor-framing fasteners and adhesives.

Identifying Elements of Walls

83. Cut wall plates.
84. Identify the framing layout on wall plates.
85. Identify studs, headers, jacks, rough sills, and cripples.
86. Identify corner and tee posts.
87. Identify types of headers.
88. Identify types of door openings.
89. Identify types of window openings.
90. Identify metal-stud framing.
91. Identify types of exterior wall sheathing.

Identifying Elements of Ceilings

92. Identify ceiling-framing detail on the top wall plate.
93. Identify the ceiling opening.
94. Identify a strongback (i.e., stiffener, catwalk).

Identifying Elements of Roofs

95. Identify roof framing detail on the cap plate.
96. Identify common, header, and cripple rafters.
97. Identify types of roof openings.
98. Identify various types of rafters.