

Cabinetry and Millwork Criticality Survey - 2016						
1. Personal Qualities and People Skills						
Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count	
Demonstrate a positive work ethic by coming to work every day on time, a willingness to take direction, and motivation to accomplish the task at hand.	0	3	12	2.80	15	
Demonstrate integrity by abiding by workplace policies and laws and demonstrating honesty and reliability.	1	2	12	2.73	15	
Demonstrate teamwork skills by contributing to the success of the team, assisting others, and requesting help when needed.	2	6	7	2.33	15	
Demonstrate positive self-representation skills by dressing appropriately and using language and manners suitable for the workplace.	2	7	6	2.27	15	
Demonstrate diversity awareness by working well with all customers and co-workers.	0	10	5	2.33	15	
Demonstrate conflict-resolution skills by negotiating diplomatic solutions to interpersonal and workplace issues.	6	2	7	2.07	15	
Demonstrate creativity and resourcefulness by contributing new ideas and working with initiative.	5	5	5	2.00	15	
<i>answered question</i>					15	
<i>skipped question</i>					0	
2. Professional Knowledge and Skills						
Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count	
Demonstrate effective speaking and listening skills by communicating effectively with customers and employees and following directions.	1	8	6	2.33	15	
Demonstrate effective reading and writing skills by reading and interpreting workplace documents and writing clearly.	1	6	8	2.47	15	
Demonstrate critical-thinking and problem-solving skills by analyzing and resolving problems that arise in completing assigned tasks.	1	6	8	2.47	15	

	Demonstrate healthy behaviors and safety skills by following safety guidelines and managing personal health.	1	4	10	2.60	15
	Demonstrate understanding of workplace organizations, systems, and climates by identifying "big picture" issues and fulfilling the mission of the workplace.	1	10	4	2.20	15
	Demonstrate lifelong-learning skills by continually acquiring new industry-related information and improving professional skills.	3	9	3	2.00	15
	Demonstrate job acquisition and advancement skills by preparing to apply for a job and seeking promotion.	6	6	3	1.80	15
	Demonstrate time, task, and resource management skills by organizing and implementing a productive plan of work.	3	7	5	2.13	15
	Demonstrate mathematical skills by using mathematical reasoning to accomplish tasks.	0	4	11	2.73	15
	Demonstrate customer service skills by identifying and addressing the needs of all customers and providing helpful, courteous, and knowledgeable service.	3	8	4	2.07	15
	<i>answered question</i>					15
	<i>skipped question</i>					0
3. Technology Knowledge and Skills						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
	Demonstrate proficiency with job-specific technologies by selecting and safely using technological resources to accomplish work responsibilities in a productive manner.	2	7	6	2.27	15
	Demonstrate proficiency with information technology by using computers, file management techniques, and software/programs effectively.	3	8	4	2.07	15
	Demonstrate proper Internet use and security by using the Internet appropriately for work.	5	4	6	2.07	15
	Demonstrate proficiency with telecommunications by selecting and using appropriate devices, services, and applications.	5	6	4	1.93	15

	<i>answered question</i>					15
	<i>skipped question</i>					0
CONTENT STANDARD 1: LAB ORGANIZATION AND SAFETY SKILLS						
Performance Standard 1.1: General Safety						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
1.1.1.	Describe general shop safety rules, procedures and housekeeping duties.	1	4	10	2.60	15
1.1.2.	Demonstrate knowledge of OSHA/EPA and their role in workplace safety.	3	5	7	2.27	15
1.1.3.	Comply with the required use of safety glasses, ear protection, gloves, and shoes during lab/shop activities (i.e., personal protection equipment - PPE).	2	1	12	2.67	15
1.1.4.	Utilize safe procedures for handling of tools and equipment.	1	0	14	2.87	15
1.1.5.	Operate lab equipment according to safety guidelines.	1	2	12	2.73	15
1.1.6.	Identify and use proper lifting procedures and proper use of support equipment.	1	5	9	2.53	15
1.1.7.	Utilize proper ventilation procedures for working within the lab/shop area.	1	3	11	2.67	15
1.1.8.	Identify the location and the types of fire extinguishers and other fire safety equipment; demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment.	1	6	8	2.47	15
1.1.9.	Identify the location and use of eye wash stations.	1	5	9	2.53	15
1.1.10.	Identify the location of the posted evacuation routes.	2	4	9	2.47	15
1.1.11.	Identify and wear appropriate clothing for lab/shop activities.	0	7	8	2.53	15
1.1.12.	Secure hair and jewelry for lab/shop activities.	0	4	11	2.73	15
1.1.13.	Locate and interpret safety data sheets (SDS).	4	8	3	1.93	15

1.1.14.	Follow verbal instructions to complete work assignments.	1	3	11	2.67	15
1.1.15.	Follow written instructions to complete work assignments.	1	4	10	2.60	15
1.1.16.	Recommend attendance of OSHA 10-hr safety course.	4	8	3	1.93	15
1.1.17.	Review worker's rights and responsibilities.	4	8	3	1.93	15
					<i>answered question</i>	15
					<i>skipped question</i>	0
CONTENT STANDARD 2: MANUAL AND POWER TOOLS						
Performance Standard 2.1: Hand Tools						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
2.1.1.	Identify hand tools and their appropriate usage.	0	5	10	2.67	15
2.1.2.	Demonstrate the proper techniques when using hand tools.	0	2	13	2.87	15
2.1.3.	Demonstrate safe handling and use of appropriate tools.	0	2	13	2.87	15
2.1.4.	Demonstrate proper cleaning, storage, and maintenance of tools.	0	7	8	2.53	15
					<i>answered question</i>	15
					<i>skipped question</i>	0
Performance Standard 2.2: Power Tools and Equipment						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
2.2.1.	Identify power tools and their appropriate usage.	0	3	12	2.80	15
2.2.2.	Identify equipment and their appropriate usage.	0	2	13	2.87	15
2.2.3.	Demonstrate the proper techniques when using power tools and equipment.	0	2	13	2.87	15
2.2.4.	Demonstrate safe handling and use of appropriate power tools and equipment.	0	3	12	2.80	15

Performance Standard 3.2: Print Reading Techniques						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
3.2.1.	Interpret basic elements of a working drawing (e.g., annotation, dimensions, line types, etc.).	0	6	9	2.60	15
3.2.2.	Identify and define industry standard terminology.	1	6	8	2.47	15
3.2.3.	Describe various types of drawings (e.g., working, assembly, pictorial, orthographic, isometric, schematic, etc.).	5	7	3	1.87	15
3.2.4.	Understand dimensioning, sectional drawings, fasteners, tables, charts, and assembly drawings.	3	7	5	2.13	15
3.2.5.	Develop a materials list from a working drawing.	3	9	3	2.00	15
3.2.6.	Develop a construction plan of procedure.	3	9	3	2.00	15
3.2.7.	Develop a cut list from a working drawing.	3	8	4	2.07	15
3.2.8.	Interpret basic elements of a working drawing (e.g., annotation, dimensions, line types, etc.)	0	10	5	2.33	15
<i>answered question</i>						15
<i>skipped question</i>						0
Performance Standard 3.3: Measures and Scaling Techniques						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
3.3.1.	Identify industry standard units of measure (e.g., standard, decimal, metric, etc.).	0	3	12	2.80	15
3.3.2.	Define industry standard measurement terms (e.g., linear, square ft., tolerance, squareness, concentricity, perpendicular, parallel, etc.).	0	5	10	2.67	15
3.3.3.	Demonstrate proper use of precision measuring tools (e.g., micrometer, dial-indicator, caliper, etc.).	2	5	7	2.36	14
3.3.4.	Measure to the nearest 1/16th inch with a tape measure.	0	0	15	3.00	15
3.3.5.	Demonstrate the use of geometric shapes (e.g., arcs, circles, angles, compound angles, tapers, etc.).	1	7	7	2.40	15
<i>answered question</i>						15
<i>skipped question</i>						0

Performance Standard 3.4: Freehand Technical Sketching Techniques						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
3.4.1.	Identify industry standard units of measure (e.g., standard, decimal, metric, etc.).	0	4	11	2.73	15
3.4.2.	Define industry standard measurement terms (e.g., linear, square ft., tolerance, squareness, concentricity, perpendicular, parallel, etc.).	1	6	8	2.47	15
3.4.3.	Demonstrate proper use of precision measuring tools (e.g., micrometer, dial-indicator, caliper, etc.).	0	6	9	2.60	15
3.4.4.	Measure to the nearest 1/16th inch with a tape measure.	0	1	14	2.93	15
3.4.5.	Demonstrate the use of geometric shapes (e.g., arcs, circles, angles, compound angles, tapers, etc.).	1	7	7	2.40	15
<i>answered question</i>						15
<i>skipped question</i>						0
Performance Standard 3.5: Computer Design Technologies						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
3.5.1.	Introduction to current software programs.	5	8	2	1.80	15
3.5.2.	Design and create a model.	5	8	2	1.80	15
3.5.3.	Create shop drawings.	4	8	3	1.93	15
3.5.4.	Modify and adjust standards within a software program.	6	6	3	1.80	15
<i>answered question</i>						15
<i>skipped question</i>						0
Performance Standard 3.6: Mathematical Concepts						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
3.6.1.	Convert between customary and metric systems.	5	5	5	2.00	15
3.6.2.	Identify and convert standards and metric designation.	5	5	5	2.00	15
3.6.3.	Add, subtract, multiply and divide fractions, decimals, and whole numbers.	1	3	11	2.67	15
3.6.4.	Convert fractions to decimals.	0	8	7	2.47	15
3.6.5.	Determine the cost of materials needed for a furniture/cabinetmaking project.	4	7	4	2.00	15
<i>answered question</i>						15
<i>skipped question</i>						0

Performance Standard 3.7: Layout Principles and Practices						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
3.7.1.	Interpret drawing, sketch or specification information.	0	8	7	2.47	15
3.7.2.	Prepare work area for layout.	1	9	5	2.27	15
3.7.3.	Select appropriate materials to complete work assignment.	0	7	8	2.53	15
3.7.4.	Use layout and marking tools as required.	1	8	6	2.33	15
3.7.5.	Layout parts using measurement practices.	1	6	8	2.47	15
<i>answered question</i>						15
<i>skipped question</i>						0
CONTENT STANDARD 4: MATERIALS AND HARDWARE						
Performance Standard 4.1: Materials						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
4.1.1.	Identify and describe the major materials and their characteristics used in furniture and cabinetmaking (e.g., hardwood, softwood, composites, laminates, veneers, edge treatment, etc.)	2	5	6	2.31	13
4.1.2.	Define material terminology (e.g., air dry, kiln dry, defects, lumber grade, face grades, sanded, etc.)	3	5	5	2.15	13
4.1.3.	Differentiate between the various types of material properties and their applications.	3	5	5	2.15	13
4.1.4.	Discuss the impact of material usage on the environment.	9	2	2	1.46	13
4.1.5.	Discuss the impact of the environment and climate on materials.	8	2	3	1.62	13
4.1.6.	Explain how production is affected by the availability, quality, and quantity of resources.	4	7	2	1.85	13
4.1.7.	Differentiate between raw materials, standard stock, and finished products.	0	7	6	2.46	13
<i>answered question</i>						13
<i>skipped question</i>						2

Performance Standard 4.2: Fasteners and Methods						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
4.2.1.	Identify and discuss various fasteners (e.g., type, purpose, application, etc.)	1	6	6	2.38	13
4.2.2.	Categorize fastening methods by appropriate applications.	2	6	5	2.23	13
4.2.3.	Discuss fastening methods for various materials (e.g., toenailing, countersinking, pocket screws, dowels, biscuits, dominos, etc.)	1	6	6	2.38	13
<i>answered question</i>						13
<i>skipped question</i>						2
Performance Standard 4.3: Adhesives and Methods						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
4.3.1.	Identify and discuss various adhesives (e.g., glues, contact adhesives, edge bending adhesives, etc.)	1	5	8	2.50	14
4.3.2.	List and define common terminology (e.g., open assembly time, closed assembly time, cure time, 1-piece flow, slip, and shelf life, etc.)	1	8	5	2.29	14
4.3.3.	Discuss adhesive methods for various materials.	0	8	6	2.43	14
4.3.4.	Compare characteristics of adhesives that affect the assembly time, cure time and strength of the product.	3	6	5	2.14	14
4.3.5.	Demonstrate the proper cleanup procedures for specific adhesives.	2	5	7	2.36	14
<i>answered question</i>						14
<i>skipped question</i>						1
Performance Standard 4.4: Hardware						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
4.4.1.	Identify and describe common types of hardware and their applications.	1	7	6	2.36	14
4.4.2.	Select the hardware for the appropriate application.	0	8	6	2.43	14
4.4.3.	Layout, install, and adjust hardware.	1	6	7	2.43	14
<i>answered question</i>						14
<i>skipped question</i>						1

CONTENT STANDARD 5: MANUFACTURING PROCESS						
Performance Standard 5.1: Manufacturing						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
5.1.1.	Identify and describe the current manufacturing processes (e.g., layout, milling, joinery, sanding, assembly, finishing, installation, etc.)	0	6	8	2.57	14
<i>answered question</i>						14
<i>skipped question</i>						1
Performance Standard 5.2: Milling Operations						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
5.2.1.	Identify terms used with milling tools (e.g., kerf, set, grain, drilling, boring, counterboring, countersinking, etc.)	2	6	6	2.29	14
5.2.2.	Select the proper milling tools for specific operations (e.g., table saw, drill press, joiner, lathe, band saw, jigsaw, routers, etc.)	0	5	9	2.64	14
5.2.3.	Demonstrate the steps to square a board.	1	3	10	2.64	14
5.2.4.	Demonstrate cutting and handling techniques used for lumber and sheet goods.	0	4	10	2.71	14
5.2.5.	Demonstrate the use of a jig, template, and fixture.	1	6	7	2.43	14
5.2.6.	Demonstrate safety operating procedures, (e.g. feather boards, holders, and power feeders).	1	3	10	2.64	14
5.2.7.	Identify terms used with milling tools (e.g., kerf, set, grain, drilling, boring, counterboring, countersinking, etc.)	1	7	6	2.36	14
<i>answered question</i>						14
<i>skipped question</i>						1
Performance Standard 5.3: Computer Numerical Control (CNC)						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
5.3.1.	Discuss the applications of CNCs and CNC technology.	4	5	5	2.07	14
5.3.2.	Understand the programming and set up of CNCs.	5	6	3	1.86	14
5.3.3.	Discuss the outcomes of appropriate G codes/M codes.	7	4	3	1.71	14
5.3.4.	Discuss troubleshooting methods.	2	7	5	2.21	14

5.3.5.	Advantages and disadvantages of using CNCs.	4	5	5	2.07	14
<i>answered question</i>						14
<i>skipped question</i>						1
Performance Standard 5.4: Joinery Techniques						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
5.4.1.	Identify terms used with joinery techniques (e.g., doweling, biscuits, floating tenon, tongue & groove, dados, miter, dovetail, etc.).	1	4	9	2.57	14
5.4.2.	Determine the appropriate joinery applications.	0	6	8	2.57	14
5.4.3.	Discuss the advantages and disadvantages of joinery types.	0	8	6	2.43	14
5.4.4.	Select the proper joinery tools and machinery for specific operations.	0	8	6	2.43	14
5.4.5.	Construct various joints (i.e., dado, miter, rabbet, butt).	0	5	9	2.64	14
<i>answered question</i>						14
<i>skipped question</i>						1
Performance Standard 5.5: Assembly						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
5.5.1.	Identify terms used with sanding processes and techniques (e.g., grit, belt, disc, hand, etc.)	0	4	10	2.71	14
5.5.2.	Properly prepare a surface for a treatment or finish.	0	3	11	2.79	14
5.5.3.	Demonstrate proper application methods for different types of filler materials.	1	4	9	2.57	14
5.5.4.	Select the proper tool and abrasive for shaping and smoothing materials.	0	5	9	2.64	14
5.5.5.	Select the proper grit sizes and sequences for shaping and smoothing operations.	0	5	9	2.64	14
5.5.6.	Utilize the proper health and safety procedures when working with abrasives and fillers.	1	4	9	2.57	14
<i>answered question</i>						14
<i>skipped question</i>						1

Performance Standard 5.6: Assembly						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
5.6.1.	Identify terms used with assembly procedures (e.g., dry fitting, clamping, gluing, etc.)	0	3	10	2.77	13
5.6.2.	Select the proper assembly tools for specific operations (e.g., c-clamps, bar clamps, pipe clamps, etc.)	1	2	10	2.69	13
5.6.3.	Demonstrate assembly and clamping procedures.	1	3	9	2.62	13
5.6.4.	Demonstrate common case construction techniques (e.g., face frame, frameless, etc.)	0	5	8	2.62	13
5.6.5.	Demonstrate common frame and panel construction techniques (e.g., stile, rail, panel, etc.)	0	6	7	2.54	13
5.6.6.	Demonstrate furniture construction techniques.	2	6	5	2.23	13
5.6.7.	Construct a project that includes a drawer and a door.	0	4	9	2.69	13
5.6.8.	Use specific quality control criteria to check the accuracy and squareness of a project.	0	4	9	2.69	13
5.6.9.	Demonstrate laminating techniques (e.g., plastic, veneers, edge treatment, etc.)	3	8	2	1.92	13
5.6.10.	Demonstrate molding and trim usage and installation.	1	5	7	2.46	13
<i>answered question</i>						13
<i>skipped question</i>						2
Performance Standard 5.7: Finishing						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
5.7.1.	Identify terms and products used in finishing procedures (e.g., staining, clear coating, penetrating oils, sheen, sealer, etc.)	2	6	5	2.23	13
5.7.2.	Select the proper finishing tools and materials for specific operations.	1	7	5	2.31	13
5.7.3.	Demonstrate proper application methods for different types of finishes.	1	7	5	2.31	13
5.7.4.	Demonstrate clean up procedures for various types of finishing products and equipment.	1	6	6	2.38	13
5.7.5.	Utilize the proper health and safety procedures when working with finishes.	1	3	9	2.62	13
<i>answered question</i>						13
<i>skipped question</i>						2

Performance Standard 5.8: Installation						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
5.8.1.	Discuss cabinet layout and installation techniques.	1	5	7	2.46	13
5.8.2.	Discuss countertop layout, materials, and installation techniques.	0	7	6	2.46	13
5.8.3.	Check walls and floors for level and plumb.	0	6	7	2.54	13
5.8.4.	Determine fasteners for walls.	0	7	6	2.46	13
5.8.5.	Install upper and lower cabinets and other casework.	1	5	7	2.46	13
5.8.6.	Install countertops, including sink cutouts and back splash.	2	6	5	2.23	13
5.8.7.	Cut and install molding and trim.	1	5	7	2.46	13
5.8.8.	Adjust doors and drawers.	0	4	9	2.69	13
5.8.9.	Clean work site.	0	3	10	2.77	13
<i>answered question</i>						13
<i>skipped question</i>						2
CONTENT STANDARD 6: CABINETRY AND MILLWORK INDUSTRY						
Performance Standard 6.1: Career Exploration						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
6.1.1.	Discuss the employment opportunities in the industry.	6	4	3	1.77	13
6.1.2.	Discuss economic impacts within the industry.	6	6	1	1.62	13
6.1.3.	Create an employment application and resume.	0	4	9	2.69	13
6.1.4.	Explore education and training for careers in the industry.	3	5	5	2.15	13
<i>answered question</i>						13
<i>skipped question</i>						2