

**CERRITOS COLLEGE**

**WOODWORKING MANUFACTURING TECHNOLOGIES PROGRAM TECHNICAL STANDARDS/ESSENTIAL FUNCTIONS**

The following listing has been prepared to assist you in understanding the technical standards of the Woodworking Manufacturing Technologies program in order to affiliate in the industry and ultimately practice the profession. The technical standards as stated herewith are not conditions of admission to a program of study. Rather, they reflect performance abilities that are necessary for a student to successfully complete the requirements of the specified Technology program.

The purpose of this document is to notify prospective Woodworking Manufacturing Technologies students of these technical standards to enable them to make an informed decision regarding enrollment in the Woodworking Manufacturing Technologies program at Cerritos College.

The delivery of safe, effective practice requires that students be able to perform functions related to the technical standards outlined here. The inability of a student to perform these functions may result in the student being unable to meet course objectives and to progress in the Woodworking Manufacturing Technologies program. Additionally, if a student is unable to perform these required competencies, the student may pose a risk of harm to the customer(s) for whom service is provided.

All applicants meeting the appropriate academic requirements shall be considered equally for admission to Cerritos College or any academic program regardless of physical or mental disability, gender, gender identity, gender expression, nationality, race or ethnicity, religion, sexual orientation, age, marital status, or genetic information. (Education Code section 66270, Government Code section 11135, Penal Code section 422.6)

<b>Technical Standards Essential Function</b>	<b>Standard Performed Description</b>	<b>Examples of Activities (Not All-Inclusive)</b>
<b>Cognitive Ability</b>	<ul style="list-style-type: none"> <li>• Demonstrate ability to use logic and technical analysis to identify the strengths and weaknesses of different approaches in the creation of furniture or cabinetry.</li> <li>• Demonstrate personal time management to complete projects by given deadlines.</li> <li>• Exhibit ability to translate written and/or verbal information into actual projects.</li> <li>• Demonstrate ability to execute work requirements in accordance with written instructions.</li> <li>• Exhibit deductive reasoning.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish and manage time requirements for woodworking project completion.</li> <li>• Demonstrate judgment and decision making as required to organize various tasks to complete woodworking assignments and projects.</li> <li>• Determine solutions and procedures to guarantee conformance with woodworking tolerances and specifications.</li> <li>• Exhibit the ability to analyze documentation like drawings, machine procedures, and specifications and then use this knowledge to fabricate, assemble, and finish projects.</li> <li>• Accept constructive criticism from the instructor and implement recommendations and/or solutions for improvement.</li> </ul>

<b>Technical Standards Essential Function</b>	<b>Standard Performed Description</b>	<b>Examples of Activities (Not All-Inclusive)</b>
<b>Communication Ability</b>	<ul style="list-style-type: none"> <li>• Demonstrate use of multiple approaches to convey information.</li> <li>• Demonstrate ability to follow verbal instructions.</li> <li>• Demonstrate ability to follow written instructions.</li> <li>• Discuss directions and methods required to complete a specific woodworking task.</li> <li>• Demonstrate use of industry-specific woodworking terms to communicate information.</li> </ul>	<ul style="list-style-type: none"> <li>• Use a variety of strategies to convey the necessary woodworking information required to complete a specific woodworking task or project.</li> <li>• Discuss available alternatives and methods that may be used to accomplish the objective.</li> <li>• Use oral expression, reading, and writing comprehension to verify that information was received.</li> <li>• Utilize woodworking terms to represent information on projects, procedures, and woodworking specifications.</li> </ul>
<b>Interpersonal/ Intrapersonal Skills and Behavior</b>	<ul style="list-style-type: none"> <li>• Demonstrate awareness of other people’s reactions and understand why they react the way they do and how you can improve the reception of your work.</li> <li>• Demonstrate ability to identify the nature of problems.</li> <li>• Demonstrate ability to collaborate with others in a group.</li> <li>• Demonstrate ability to maintain and control self-behavior in a group setting.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate respect for individual differences.</li> <li>• Assist peers in resolving problems or conflicts.</li> <li>• Respond appropriately to emergencies.</li> <li>• Work cooperatively within a group to achieve a goal.</li> <li>• Maintain appropriate self-behavior in a group and/or social environment like a classroom or laboratory demonstration.</li> </ul>
<b>Visual Ability</b>	<ul style="list-style-type: none"> <li>• Exhibit recommended 20/20 vision -natural or corrected.</li> <li>• Exhibit accurate vision from 6” to 36” required.</li> <li>• Demonstrate ability to perform required task in both low and bright lighted environments.</li> <li>• Demonstrate ability to visually obtain information from technical drawings or written standards.</li> </ul>	<ul style="list-style-type: none"> <li>• Perform woodworking tasks from 6” to 36” with natural vision or corrected vision with contacts or glasses.</li> <li>• Identify visually material discontinuities and defects like: size, shape, misalignment, cracks, or gaps.</li> <li>• Precision use tools and measurement devices such as tape measures, metal rules, and equipment scales to measure or make setting to the nearest 1/32”.</li> <li>• Read detailed drawings and woodworking procedures.</li> </ul>

Technical Standards Essential Function	Standard Performed Description	Examples of Activities (Not All-Inclusive)
<b>Auditory Ability</b>	<ul style="list-style-type: none"> <li>• Demonstrate hearing ability sufficient to communicate with peers in close or far proximity.</li> <li>• Demonstrate hearing awareness of potentially hazardous industrial equipment.</li> <li>• Demonstrate ability to hear alarms, bells, sirens, and various other safety alerts.</li> <li>• Tolerate exposure to extremely noisy and loud environments.</li> </ul>	<ul style="list-style-type: none"> <li>• Communicate effectively with other woodworkers or peers inside of an industrial shop or in the field by voice, loud speaker, phone, and/or two way radio.</li> <li>• Hear and detect safety hazards.</li> <li>• Hear and detect industrial equipment problems, overloading, and/or failures.</li> <li>• Demonstrate ability to accurately adjust woodworking equipment by sound.</li> <li>• Demonstrate ability to concentrate and perform woodworking duties while being exposed to an industrial noisy environment for lengthy periods of time.</li> </ul>
<b>Tactile Ability</b>	<ul style="list-style-type: none"> <li>• Demonstrate tactile ability sufficient for physical control of tools and equipment.</li> <li>• Demonstrate manual hand dexterity with repetitive precision movements and techniques.</li> <li>• Demonstrate ability to manually manipulate small parts less than 1/16" in diameter.</li> <li>• Demonstrate ability to use finger and hand pressure to grip variously shaped objects.</li> </ul>	<ul style="list-style-type: none"> <li>• Perform functions of physical control with various tools and equipment.</li> <li>• Perform repetitive woodworking techniques in multiple positions with both hands simultaneously.</li> <li>• Demonstrate ability to have individual hands perform different manual functions simultaneously. One hand holding a part and the other measuring one of the part's characteristics.</li> <li>• Demonstrate ability to manipulate and feed small parts tactically with hands and fingers.</li> <li>• Demonstrate ability to perform woodworking operations using both hands.</li> </ul>

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<b>Olfactory Ability</b>	<ul style="list-style-type: none"> <li>• Demonstrate ability sufficient to detect contaminant odors in the workplace, including gas leaks.</li> <li>• Exhibit identification ability when working with chemicals, solvents, and petroleum based liquids.</li> <li>• Demonstrate ability to detect various burning materials.</li> <li>• Demonstrate ability to detect electrical and/or burning synthetic materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Detect hazardous and/or objectionable woodworking fumes.</li> <li>• Detect various burning materials.</li> <li>• Detect smells that represent a potential hazard such as smoke from a fire or burning electrical equipment and/or synthetic materials.</li> <li>• Tolerate the normal smells and fumes produced by woodworking processes.</li> </ul>
<b>Strength and Mobility</b>	<ul style="list-style-type: none"> <li>• Demonstrate ability to work with both hands overhead or below the waist.</li> <li>• Demonstrate ability to move industrial equipment up to 300 lbs. with appropriate devices.</li> <li>• Demonstrate ability to lift 50 lbs. from the ground to the overhead position.</li> <li>• Demonstrate ability to pick up and carry large pieces of lumber or materials over 100 lbs. with assistance.</li> </ul>	<ul style="list-style-type: none"> <li>• Perform woodworking and cutting tasks requiring standing, sitting, bending, crouching, kneeling, pushing and pulling, twisting, working overhead and/or working at ground level.</li> <li>• Demonstrate ability to lift parts weighing 50 lbs. from the floor up to a machine table usually at waist height.</li> <li>• Demonstrate ability to move lumber weighing up to 50 lbs. from a storage area to a lab and onto a machine for processing.</li> <li>• Demonstrate ability to pick up and carry a bench top or similar item weighing over 100 lbs. with assistance.</li> </ul>
<b>Motor Skills</b>	<ul style="list-style-type: none"> <li>• Demonstrate physical abilities including: standing, sitting, walking, stooping, crawling, reaching, squatting, lifting, and bending.</li> <li>• Exhibit full range-of-motion of all extremities.</li> <li>• Demonstrate balance sufficient to conduct precision repetitive movements.</li> <li>• Demonstrate ability to keep balance and equilibrium when in various physical positions.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate ability to perform physical operations in an industrial laboratory while wearing all required personal protective equipment.</li> <li>• Demonstrate ability to perform repetitive physical movements and motor skills intermittently and/or continuously for extended periods of time.</li> <li>• Demonstrate ability to continuously improve and further develop manual motor skills and woodworking techniques.</li> </ul>

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Physical Endurance	<ul style="list-style-type: none"> <li>• Demonstrate sufficient physical endurance to complete assigned industrial work and/or woodworking projects.</li> <li>• Perform industrial work activities for up to 8 hours while wearing required safety equipment.</li> <li>• Demonstrate ability to work long extended overtime hours including weekends.</li> <li>• Demonstrate physical endurance to perform woodworking work duties in arduous environments such as ambient temperatures exceeding 100°F.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate ability to develop and refine manual dexterity motor skills to implement various techniques required to produce acceptable parts.</li> <li>• Sit and/or stand for up to 8 hours a day with arms extended to waist level or face level while performing woodworking operations.</li> <li>• Perform manual operations for extended periods of time.</li> <li>• Perform strenuous woodworking activities in adverse conditions and environments that may be hot, cold, dusty, windy, noisy, and/or in direct sunlight.</li> </ul>
Environmental Tolerance	<ul style="list-style-type: none"> <li>• Demonstrate ability to function safely in an industrial laboratory environment.</li> <li>• Demonstrate ability to work indoors for extended periods of time.</li> <li>• Tolerate exposure to industrial equipment and other potentially hazardous equipment like forklifts, dollies, carts, and woodworking machinery.</li> </ul>	<ul style="list-style-type: none"> <li>• Adapt and work in congested and/or confined areas.</li> <li>• Perform woodworking tasks and work in hot, dusty, noisy and/or highly ventilated forced-air environments.</li> <li>• Tolerate odors and fumes associated with woodworking operations.</li> <li>• Work indoors while wearing full protective safety equipment.</li> <li>• Tolerate exposure to an environment that contains industrial hazards like: heavy parts and materials, flammable gasses, sharp objects, saws, sanders, and electrical equipment.</li> </ul>

**Disability Statement:**

*If you have a disability or acquire one, you may be entitled to receive support services and/or accommodations intended to assure you an equal opportunity to participate in, and benefit from, the program. Reasonable accommodations for students with disability related needs will be determined on an individual basis taking into consideration the standards and essential skills which must be performed to meet the program objectives. To receive more information or to apply for services, please contact Student Accessibility Services (SAS) at (562) 860-2451 ext. 2335 or (562) 274-7164 (VP), email them at [sasapply@cerritos.edu](mailto:sasapply@cerritos.edu), or visit them in the Liberal Arts/SAS Building. All prospective and current Woodworking Manufacturing Technologies students must be able to meet these standards with or without reasonable accommodations.*