

# TECHNICAL STANDARDS

## Automation & Instrumentation Technology

In this program grouping, students should be able to meet specific technical standards. These standards are the essential skills and abilities needed to be successful in a program, with or without reasonable accommodation. All Technical Standards documents are available for review on the Mid-State Technical College [website](#).

**It is important to review and understand these technical standards before applying to the program.**

Reasonable accommodations for persons with disabilities will be made to ensure access to academic programs, activities, services, and employment in accordance with Section 504 and 508 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990, as amended. If accommodation is needed, contact the Accessibility Services Coordinator at 888.575.6782, TTY 711, at least two weeks in advance of needed assistance. Services available are documented on the Mid-State Technical College [website](#).

For more information, please see Mid-State Technical College's Equal Opportunity/Non-Discrimination [Policy](#).

TECHNICAL STANDARD	DEFINITION OF TECHNICAL STANDARD	EXAMPLES OF TECHNICAL STANDARD
Auditory Skills	<ul style="list-style-type: none"> <li>Ability to distinguish various sounds, tones, and pitches emitted by machining and manufacturing equipment.</li> <li>Ability to tolerate extended exposure to equipment noise.</li> </ul>	<ul style="list-style-type: none"> <li>Detect audible sounds for equipment function and warning.</li> <li>Troubleshooting a motor (hearing differences in load on a motor).</li> </ul>
Behavioral Skills	<ul style="list-style-type: none"> <li>Ability to apply knowledge, skills and experience to provide a safe work environment.</li> </ul>	<ul style="list-style-type: none"> <li>Analyze equipment in the field.</li> <li>Wear personal protective equipment for safe practices (gloves, masks, eyewear).</li> <li>Tolerate heat and humidity.</li> <li>Adhere to safety/emergency protocols.</li> <li>Recognize and respond to hazardous conditions.</li> <li>Demonstrate impulse control and professional level of maturity.</li> <li>Follow emergency procedures as needed.</li> <li>Ability to accept constructive feedback.</li> <li>Prepared to work on time.</li> </ul>
Communication Skills	<ul style="list-style-type: none"> <li>Ability to effectively and clearly communicate with others, accurately gather, disseminate, and clarify specific information.</li> </ul>	<ul style="list-style-type: none"> <li>Ability to convey information in a clear, professional and timely manner.</li> <li>Listen and respond to others in an accepting and respectful manner.</li> <li>Write work order reports.</li> </ul>

Critical Thinking Skills	<ul style="list-style-type: none"> <li>Ability to measure, calculate, reason, analyze, integrate, and synthesize information.</li> </ul>	<ul style="list-style-type: none"> <li>Apply knowledge and skills learned in the classroom to a work setting.</li> <li>Comprehend and follow instructions.</li> <li>Follow a process from start to finish, sequence information.</li> <li>Adapt decisions based on new information.</li> <li>Maintain focus in an environment with distractions.</li> <li>Ability to problem-solve complex situations.</li> <li>Troubleshoot a fault in an electrical control system.</li> <li>Complete portions of complex PLC programs.</li> </ul>
Interpersonal Skills	<ul style="list-style-type: none"> <li>Ability to work within a team.</li> </ul>	<ul style="list-style-type: none"> <li>Collaborate with others.</li> <li>Establish a professional working relationship with coworkers, peers, instructors, and clients.</li> </ul>
Mobility and Motor Skills	<ul style="list-style-type: none"> <li>Possess sufficient motor functions necessary to operate machining and manufacturing equipment in a safe manner.</li> <li>Ability to tolerate prolonged periods of standing/walking.</li> </ul>	<ul style="list-style-type: none"> <li>Move in confined spaces including walking, squatting, and lifting while maintaining balance.</li> <li>Maintain balance in standing position.</li> <li>Move body from one side to the other.</li> <li>Reach below the waist and to the front or the side of the body to the level of the top of head (i.e., adjust overhead lights, plug electrical appliance into wall outlet).</li> <li>Push, pull, stabilize, and freely move arms to allow movement of a part, tool, object from one place to another.</li> <li>Bend, stretch, twist, reach with your body above shoulders, below waist, and in front.</li> <li>Engaging depressed pushbuttons, large power switch levers.</li> </ul>
Tactile Skills	<ul style="list-style-type: none"> <li>Ability to effectively use a computer through the use of a manual keyboard, mouse, and viewing a monitor/ screen to accomplish tasks requiring email and web browsers.</li> </ul>	<ul style="list-style-type: none"> <li>Program a PLC.</li> <li>Grasp, twist, squeeze, pinch, and manipulate equipment.</li> </ul>
Visual Skills	<ul style="list-style-type: none"> <li>Possess sufficient peripheral vision and depth perception.</li> <li>Ability to see and differentiate between an array of colors.</li> </ul>	<ul style="list-style-type: none"> <li>Ability to visually detect equipment displays.</li> <li>Ability to visually detect environmental hazards.</li> <li>Detect objects, symbols and numbers both near and far.</li> <li>Detect and identify different colors.</li> <li>Program control screens for user input.</li> </ul>

barrier to admission or participation in any college program or service. Mid-State complies with the American with Disabilities Act and provides reasonable accommodations to assist persons with disabilities upon request.