

TECHNICAL STANDARDS

Advanced Manufacturing Technology

In this program grouping, students should be able to meet specific technical standards, which are the essential skills and abilities needed to be successful in a program, with or without reasonable accommodation. It is important to review and understand these standards before applying to the program. All Technical Standards documents are available for review on the Mid-State Technical College website. (Go to <https://www.mstc.edu/programs> and select the program.)

This document should be reviewed prior to 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 accommodations are needed, contact the Disability Services coordinator at 888.575.6782, TTY 711, at least two weeks in advance of needed assistance. Services available are documented at <https://www.mstc.edu/student-services/disability-services>.

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

STANDARD	DEFINITION OF STANDARD	EXAMPLE(S) OF TECHNICAL STANDARD
Critical Thinking Skills	<ul style="list-style-type: none">• Ability to synthesize information for the purpose of problem solving and decision making.• Ability to multitask in a stimulating and fast-paced environment.• Ability to concentrate for extended periods of time within a high-volume auditory environment.• Ability to interpret blueprint readings and measurements on physical paper or computer screens.	<ul style="list-style-type: none">• Apply knowledge and skills learned in the classroom to a work setting.• Comprehend and follow instructions.• Follow a process from start to finish, sequence information.• Adapt decisions based on new information.• Maintain focus in an environment with distractions.• Ability to problem-solve complex situations.
Mobility/Motor Skills	<ul style="list-style-type: none">• Ability to demonstrate fine and gross motor skills and coordination for the purposes of safety.• Ability to operate industrial machinery, power tools, hand tools, and cutting tools safely and properly in the machine shop.• Ability to properly use first aid kits and fire extinguishers.• Possess the physical and mental stamina to meet the demands associated with extended periods of standing, moving, and physical exertion required for operation of tools and machines.	<ul style="list-style-type: none">• Move in confined spaces including walking, squatting, and lifting while maintaining balance.• Maintain balance in standing position.• Move body from one side to the other.

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		<ul style="list-style-type: none"> • 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). • Push, pull, stabilize, and freely move arms to allow movement of a part, tool, object from one place to another. • Bend, stretch, twist, reach with your body above shoulders, below waist, and in front.
Tactile Skills	<ul style="list-style-type: none"> • Ability to manipulate, place small components, and use appropriate tools. • Ability to operate a computer, mouse, and utilize related software. 	<ul style="list-style-type: none"> • Grasp, twist, squeeze, pinch, and manipulate equipment.
Auditory Skills	<ul style="list-style-type: none"> • Possess sufficient auditory abilities to work effectively and safely. 	<ul style="list-style-type: none"> • Detect audible sounds for equipment function and warning.
Visual Skills	<ul style="list-style-type: none"> • Ability to visualize the cutting, drilling, and handling parts within a Computer Numerically Controlled or Manual Machine. • Ability to read written and printed blueprints, measurement instruments, 2D and 3D drawings, and featured controlled frames. • Ability to observe demonstration of machines and software's by instructor during classroom and hands-on instruction. • Ability to analyze small cuts, holes, and marks on aluminum and steel parts. 	<ul style="list-style-type: none"> • Ability to visually detect equipment displays. • Ability to visually detect environmental hazards. • Detect objects, symbols and numbers both near and far. • Detect and identify different colors.
Communication Skills	<ul style="list-style-type: none"> • Ability to read and write sufficient to follow manuals and directions in technical work environments. • Ability to communicate verbally (hear/lip-read and speak) to follow directions, explain a scenario or setup, and communicate questions. • Possess appropriate interpersonal interaction with other students, faculty, staff, facility owners, customers, and other technicians. 	<ul style="list-style-type: none"> • Ability to convey information in a clear, professional and timely manner. • Listen and respond to others in an accepting and respectful manner.

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Interpersonal Skills	<ul style="list-style-type: none">• Ability to work with others in a variety of settings and situations; some of which may be stressful, hot, or cold.	<ul style="list-style-type: none">• Collaborate with others.• Establish a professional working relationship with coworkers, peers, instructors, and clients.
Behavioral Skills	<ul style="list-style-type: none">• Ability to exercise good decision-making and sound judgment to demonstrate a consistently professional demeanor.• Ability to adapt to changing environments and display flexibility with uncertainties in the manufacturing environment.• Ability to maintain hygiene and dress requirements appropriate for an industrial and technical environment.	<ul style="list-style-type: none">• Analyze equipment in the field.• Wear personal protective equipment for safe practices (gloves, masks, eyewear).• Tolerate heat and humidity.• Adhere to safety/emergency protocols.• Recognize and respond to hazardous conditions.• Demonstrate impulse control and professional level of maturity.• Follow emergency procedures as needed.• Ability to accept constructive feedback.• Prepared to work on time.

Mid-State does not discriminate on the basis of race, color, national origin, sex, disability, or age in its program, activity, or employment. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Vice President – Human Resources; 500 32nd Street North, Wisconsin Rapids, WI 54494; 715.422.5325 • AAEO@mstc.edu.