

# TECHNICAL STANDARDS

## Surgical 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 hear and understand muffled communication without visualization of the person's mouth and lips.</li> </ul>	<ul style="list-style-type: none"> <li>Ability to detect normal speaking level sounds (e.g., person to person conversation, request for instrument).</li> <li>Detect faint voices and body sounds (e.g., heartbeat).</li> <li>Ability to discriminate speech in presence of background noises.</li> <li>Hear in situations when unable to see lips (e.g., masks are worn in the operating room).</li> </ul>

<p>Behavioral Skills</p>	<ul style="list-style-type: none"> <li>• Ability to tolerate exposure to a wide range of chemical and biological agents that could be potentially harmful.</li> <li>• Ability to wear personal protective equipment for safe practices (e.g., masks, eyewear etc.).</li> </ul>	<ul style="list-style-type: none"> <li>• Focus attention on task.</li> <li>• Cope with own emotions.</li> <li>• Perform multiple responsibilities concurrently.</li> <li>• Cope with strong emotions in others (e.g., grief, anger, stress).</li> <li>• Accept constructive feedback.</li> <li>• Accept responsibility for own actions.</li> <li>• Detect environment temperature.</li> <li>• Tolerate exposure to allergens (e.g., latex gloves, chemical/substances).</li> <li>• Tolerate strong soaps.</li> <li>• Tolerate strong odors.</li> <li>• Exposure and tolerate unpleasant sights and sounds, electrical energy, solvents, grease, oils, slippery or uneven walking surfaces and excessive noises.</li> <li>• Tolerate wearing protective equipment (e.g., mask, gown, gloves, glasses, lasers, radiation).</li> <li>• Tolerate working indoors.</li> <li>• Tolerate working in extreme temperatures.</li> <li>• Put the patient first.</li> <li>• Adjust practices according to patient needs.</li> <li>• Recognize hazards and apply safety principles including emergency preparedness.</li> <li>• Provide safe patient care in a timely manner.</li> <li>• Demonstrate safe practice with sharps (blades, needles, etc.).</li> <li>• Demonstrate safe practice with medications and solutions.</li> <li>• Demonstrate safe and efficient decontamination and disinfection principles.</li> <li>• Handle instruments and supplies according to OSHA guidelines and hospital policy and procedure.</li> <li>• Follow AST Code of Ethics.</li> <li>• Follow HIPAA guidelines.</li> </ul>
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<p>Communication Skills</p>	<ul style="list-style-type: none"> <li>• Ability to understand spoken and written English language to include complex medical terminology, the ability to read medication/prescription labels, directions for dosage, and use in an accurate and expedient manner.</li> <li>• Ability to discuss and ask questions regarding surgical procedures both preoperatively and intraoperatively.</li> <li>• Ability to convey information in a clear, professional, and timely manner.</li> <li>• Ability to listen and respond to others in an accepting and respectful manner.</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to speak, write, and understand English to be able to communicate with clients as well as report and document client information.</li> <li>• Comprehend spoken / written words.</li> <li>• Collaborate with others (e.g., health care workers, peers).</li> <li>• Comprehend and exhibit non-verbal communication.</li> <li>• Read and understand written documents.</li> <li>• Read digital displays.</li> <li>• Count, add, subtract, multiply and divide whole numbers.</li> <li>• Compute fractions and decimals.</li> <li>• Document numbers in records.</li> <li>• Tell and measure time.</li> <li>• Read measurement marks (e.g., rulers, scale).</li> </ul>
<p>Critical Thinking Skills</p>	<ul style="list-style-type: none"> <li>• Ability to apply broad concepts to clinical situations.</li> <li>• Ability to concentrate to correctly perform surgical technology tasks within the scope of practice.</li> <li>• Ability to make correct judgments on seeking consultation or supervision in a timely manner.</li> <li>• Ability to demonstrate problem-solving skills preoperatively, intraoperatively, and postoperatively.</li> <li>• Ability to be observant of contamination of sterile areas and know how to correct the situation.</li> <li>• Ability to combine pieces of information to form conclusions and to apply surgical practices.</li> <li>• Ability to bring together and relate similarities of surgical procedures and situations in order to function on unfamiliar procedures.</li> <li>• Ability to quickly assess needs for surgical procedures, anticipate surgeon's needs, and act appropriately at all times.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify cause-effect relationships.</li> <li>• Plan/control activities (organizational skills).</li> <li>• Sequence information.</li> <li>• Make decisions independently.</li> <li>• Adapt decisions based on new information.</li> <li>• Comprehend and follow instructions.</li> <li>• Follow a process from start to finish (e.g., two or more step instruction).</li> <li>• Transfer knowledge from one situation to another.</li> <li>• Process and interpret information from multiple sources (written or oral).</li> <li>• Analyze and interpret abstract and concrete data.</li> <li>• Evaluate outcomes.</li> <li>• Problem solve.</li> <li>• Prioritize tasks (e.g., time management).</li> <li>• Use long-term memory.</li> <li>• Use short-term memory.</li> </ul>

<p>Interpersonal Skills</p>	<ul style="list-style-type: none"> <li>• Ability to establish a professional working rapport with surgeons, anesthesia personnel, surgical technologists, nurses, and a variety of other departmental staff as well as patients.</li> <li>• Ability to exhibit positive interpersonal skills in patient, staff, and faculty interactions.</li> <li>• Ability to demonstrate appropriate impulse control and professional level of maturity.</li> <li>• Ability to recognize appropriate boundaries in relationships with patients and colleagues.</li> <li>• Ability to demonstrate good team building skills.</li> <li>• Ability to handle demanding clinical assignments and handle the stress that goes with it.</li> <li>• Ability to demonstrate calm and effective behavior and responses, especially during emergency situations.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish professional relationships.</li> <li>• Adapt to changing environment/stress and unexpected situations (e.g., client condition, crisis).</li> <li>• Establish rapport with individuals (e.g., surgeons, staff members and groups).</li> <li>• Respect / value diversity in others.</li> <li>• Negotiate interpersonal conflict.</li> <li>• Demonstrate tolerance in working with others.</li> <li>• Function as part of a team.</li> </ul>
<p>Mobility and Motor Skills</p>	<ul style="list-style-type: none"> <li>• Ability to bend, stretch, twist, or reach with your body, hands, and arms.</li> <li>• Ability to quickly and continuously pass instruments in a timely manner with precision.</li> <li>• Ability to stand in one spot for an extensive amount of time as well as during shorter surgical procedures.</li> <li>• Ability to lift surgical instrument trays as well as participate in patient lifting and positioning.</li> </ul>	<ul style="list-style-type: none"> <li>• Move within confined spaces.</li> <li>• Maintain balance in multiple positions.</li> <li>• Reach above shoulders (e.g., adjust overhead lights).</li> <li>• Reach below waist (e.g., plug electrical appliance into wall outlet).</li> <li>• Reach out front.</li> <li>• Stand for long periods of time from 2-4 hours.</li> <li>• Maintain same position for long periods of time.</li> <li>• Sustained repetitive movements.</li> <li>• Function in a fast-paced work environment for hours.</li> <li>• Push and pull 50 pounds (e.g., carry instrument pans, position client, move equipment).</li> <li>• Support 50 pounds of weight (e.g., hold arm or leg).</li> <li>• Lift 50 pounds (e.g., pick up a child, transfer clients, bend to lift an infant or child).</li> <li>• Carry equipment/supplies (e.g., lift instrument pans).</li> <li>• Use upper body strength (e.g., retraction, physically restrain a client).</li> <li>• Tolerate working in confined spaces for extended periods of time.</li> </ul>

Tactile Skills	<ul style="list-style-type: none"> <li>• Ability to hold and operate instruments/retractors at correct strength for surgical procedures.</li> <li>• Ability to make precisely coordinated movements of the fingers of one or both hands to grasp retractors, manipulate or assemble instrument parts quickly with good hand-eye coordination.</li> </ul>	<ul style="list-style-type: none"> <li>• Pick up objects.</li> <li>• Grasp small objects firm and slight (ex. surgical instruments, sutures).</li> <li>• Document with pen or pencil.</li> <li>• Key/type (e.g., use a computer).</li> <li>• Pinch/pick (e.g., manipulate a syringe).</li> <li>• Twist (e.g., turn objects/knobs).</li> <li>• Squeeze (e.g., eye dropper).</li> <li>• Manual dexterity.</li> <li>• Demonstrate dexterity with small objects.</li> <li>• Simultaneous use of hands, wrists, fingers.</li> <li>• Squeeze (e.g., operate fire extinguishers).</li> <li>• Feel vibrations (e.g., palpate pulses).</li> <li>• Detect temperature (e.g., solutions).</li> <li>• Feel differences in surface characteristics.</li> <li>• Feel differences in sizes, shapes.</li> </ul>
Visual Skills	<ul style="list-style-type: none"> <li>• Ability to detect activation/warning signals on equipment.</li> <li>• Ability to see the sterile field, back table, instruments, and supplies clearly without holding items closer than 12 inches from the face with or without corrective lenses and wearing safety glasses.</li> <li>• Ability to demonstrate sufficient peripheral vision to anticipate the surgeon and function in the sterile field.</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate eye-hand and eye-hand-foot (e.g., pumping soap dispenser and surgical scrub).</li> <li>• See objects up to 20 inches away (e.g., information on monitor screen, identification of small needles).</li> <li>• See objects up to 20 feet away.</li> <li>• Use depth perception.</li> <li>• Use peripheral vision.</li> <li>• Distinguish color and color intensity (e.g., color codes on supplies).</li> <li>• See in darkened room (e.g., during endoscopic procedures, eye surgery).</li> </ul>

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