

## Medical Imaging and Radiation Sciences

### Technical Standards

The medical imaging and radiation sciences professions perform complex procedures that require independent judgment, initiative, and certain physical abilities. The skills and abilities outlined reflect the daily technical standards for medical imaging and radiation sciences practitioners that the clinics require of employees, and students likewise, within the clinic setting. The guidelines are to assist applicants and students in understanding the physical requirements of the health care training and practice environment. Inability to perform each of these functions may impact a student's ability to complete clinical rotations, obtain employment upon graduation, or may compromise the student's ability to provide safe, quality patient care. The Department of Medical Imaging and Radiation Sciences will consider for admission any applicant who has: 1) the ability to perform the technical standards and skills specified, with or without reasonable accommodations, and; 2) met the published criteria for admission required for all applicants. The Department is committed to the principle of diversity. In that spirit, admission to the Department is open to qualified individuals with disabilities in accordance with Section 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act of 1990, as amended.

**Clinical Thinking:** **Patient needs/problems solving/critical thinking abilities sufficient for clinical judgment.**

- Examples:**
- Interpret physician orders
  - Assess the patient's well being
  - Select appropriate equipment and accessories
  - Evaluate and critique images for technical accuracy and procedural determinations
  - Prepare images for interpretation
  - Identify cause-effect relationships in clinical situations
  - Handle stressful situations related to technology, procedures, or patient care
  - Provide emotional support to patients during procedures or treatment
  - Respond effectively and quickly to situations requiring first aid or emergency care of patients
  - Complete necessary documentation

**Interpersonal:** **Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, economic, emotional, cultural, and intellectual backgrounds.**

- Examples:**
- Establish appropriate rapport with patients and colleagues and other health care providers
  - Greet patients and others professionally
  - Work with others as a team to ensure quality patient care
  - Deliver care and services to patients unrestricted by personal concerns of nature of illness, race, color, national origin, sex, sexual orientation, gender identity, genetic information, age, religion, disability, political beliefs, or status as a veteran.

**Communication:** **Communication proficiency at a professional level in English, both verbal and written, to include reading, writing, spelling, speaking, and listening.**

- Examples:**
- Clearly explain and give patient directions before/during/after imaging and/or treatment procedures
  - Initiate patient education
  - Use verbal and non-verbal cues to identify patient needs/problems
  - Document and interpret patient responses clearly, correctly, and without spelling errors
  - Communicate in a professional manner with various health care professionals
  - Display sensitivity to patients or others with hearing, verbal or other communication impairments
  - Possess reading comprehension sufficient to understand patient documentation in the patient chart

- Possess reading comprehension sufficient to follow instructional signage within the hospital or clinical facility
- Possess ability to communicate clear instructions to patients and colleagues in emergency situations
- Possess ability to communicate understandable directions to patients and others within the hospital or clinical facility
- Possess written and verbal communication skills sufficient to be understood by other health care professionals
- Possess listening skills sufficient to understand patients and others when they speak

**Mobility:**

**Examples:**

**Physical abilities sufficient to provide safe and effective patient care.**

- Move independently throughout the department and clinical facility.
- Transport mobile and immobile patients via wheel chair, stretcher, and/or patient bed to and from the department and throughout the clinical facility
- Push and pull imaging equipment, ancillary patient equipment and other objects for a minimum of 50 feet and up to 100 lbs of force
- Lift and carry from floor level, up to 50 lbs without assistance
- Lift and carry from waist level, above shoulders, and out from the body, up to 25 lbs without assistance
- Assist with moving patients weighing up to 450 lbs with assistance from department personnel and/or mechanical lift devices
- Stand or walk for a minimum of 8 hours
- Assist patients with ambulating throughout the department and clinical facility
- Run, climb, bend, crouch, squat, crawl, kneel, stoop, bend at waist, twist at waist, and balance occasionally for 3-6 hours a day
- Wear radiation protection weighing between 7-20 lbs for extended periods
- Ascend and descend stairways in emergency situations
- Urgently provide life support services including chest compression and ventilation
- Perform patient positioning
- Have sufficient mobility to maintain a safe environment for patients and others

**Motor Skills:**

**Examples:**

**Gross and fine motor abilities sufficient to provide safe and effective patient care.**

- Possess manual dexterity sufficient to execute small hand movements
  - o grasp, turn, manipulate equipment controls and/or small objects with and without gloves
  - o insert needles and catheters for patient care with gloves
- Possess touch sensation sufficient to detect heat and cold, perform physical assessments of patients
- Possess finger dexterity for keyboard use and typing

**Visual:**

**Examples:**

**Visual ability sufficient for observation, assessment, and provision of patient care.**

- Verify patient identifiers such as armbands
- Read patient charting information in paper or electronic format
- Read displays on medical equipment
- Read signage at a relevant distance
- Recognize and identify clinical information and systems at relevant distance
- Recognize color coding when used for identifying types of information, categories of equipment, and conveying information on displays
- Evaluate gray scale and color scale when used on displays
- Visualize and identify small objects such as needles and other patient care items

**Hearing:** **Auditory ability sufficient to monitor and assess health needs to communicate with individuals, families, groups, communities, and health care professionals.**

- Examples:**
- Understand speech at normal or low volumes
  - Recognize a call for help from a distance equivalent to that of a normal hearing range
  - Recognize equipment auditory signals, unusual sounds, and alarms
  - Respond to verbal communications and commands given through a mask over the face, in a darkened room, and when speaker has his or her back turned
  - Perceive the nature of machinery sounds
  - Distinguish sounds such as a patient breathing, wheezing, or gasping
  - Use a stethoscope for the evaluation of patient blood pressure
  - Endure loud and repetitive noise emitted from imaging equipment

**Other:** **Environmental awareness sufficient to provide safe, effective patient care.**

- Examples:**
- Work in a latex-burdened environment, and other frequently used chemicals and materials

A matriculant or currently enrolled student who voluntarily discloses a disability and seeks an accommodation must submit appropriate, current documentation from a qualified professional that substantiates the existence of the disability and describes the related functional limitations for which reasonable accommodation is requested.

In accordance with applicable federal and state law and University policy, the Department will provide reasonable accommodations to otherwise qualified individuals with disabilities to ensure equal access to educational programs, services, and activities. The Department is not required to provide accommodations that would result in a fundamental alteration of the nature of the program, service, or activity; impose an undue hardship; or create undue financial or administrative burdens.

To matriculate into or continue in the curriculum, all students must be able to meet the technical standards that are essential and fundamental to the academic and professional requirements of the program, with or without reasonable accommodation. Failure to meet these essential technical standards may result in withdrawal of an offer of admission or dismissal from the program, consistent with University policy and due process procedures.

Requests for disability-related accommodations must be initiated through Student Accommodation Services (SAS), which serves as the University's designated office for determining eligibility for accommodations and coordinating approved accommodations. SAS may be contacted at: <https://students.ouhsc.edu/Services/Student-Accommodation-Services-SAS>