

## **TULSA COMMUNITY COLLEGE DIAGNOSTIC MEDICAL SONOGRAPHY**

### **CLINICAL/ACADEMIC STANDARDS**

The Diagnostic Medical Sonography Program at Tulsa Community College complies with the 2008 Americans with Disabilities Act (ADA). Any student requiring special accommodations or classroom modifications should see the Education Access Center at Tulsa Community College

Diagnostic Medical Sonography involves the provision of direct care for individuals and is characterized by the application of knowledge in the skillful performance of patient care functions in the diagnostic medical sonography lab and clinical sites. Therefore, in order to successfully complete the classroom, clinical and laboratory requirements, all students must possess certain characteristics. The purpose of this section is to provide the student/applicant an understanding of the physical demands and communication skills required for the program based on tasks performed by Diagnostic Medical Sonographers working in the field.

The common work environment for a Diagnostic Medical Sonographer and for a student studying for the same profession would include the following:

1. Constant contact and communication with patients, the public and other members of the healthcare team.
2. Decision making on patient care based on assessment of the patient.
3. Moving and manipulating heavy equipment and patients.
4. Frequent and timely operation of computers and telephones.
5. Moving patients for such activities as moving a patient in a stretcher or wheel chair, and assisting in the lifting of patients, for example, moving a patient in the bed or moving from a stretcher to a bed or the DMS lab patient table.
6. Exposure to pathogens through bodily fluids, secretions, mucous, and blood.

An applicant/student must possess:

1. Sufficient visual acuity such as is needed for the observation required for patient assessment including visualizing patient monitors, response to therapy and care, and to assist the clinician in handling very small needles, guide wires and other equipment.
2. Sufficient auditory perception to receive verbal communication from patients and members of the health care team who often are wearing face masks and to assess health needs of patients through the use of monitoring devices such as cardiac monitors, various alarms, stethoscopes, fire alarms, life support equipment, etc.
3. Sufficient gross and fine motor coordination to respond promptly and implement the skills, including the manipulation of tools and equipment required in scanning

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patients for diagnostic medical sonography examinations.

4. Sufficient communication skills (speech, reading, writing) to interact with individuals and communicate their needs promptly and effectively as may be necessary in the individual's interest.
5. Sufficient intellectual and emotional function to plan and implement care for individuals including the ability to demonstrate emotional stability to function effectively under stress and the ability to adapt to a changing, unpredictable environment.

**THE NEXT PAGES CONTAIN A TABLE THAT LISTS THE TECHNICAL AND ACADEMIC STANDARDS FOR THE PROGRAM**

Please read, complete and sign the form at the end of the table.

### Physical Requirements (Technical Standards)

Student Sonographers *must be* able to:

- Lift more than 50 pounds routinely
- Push and pull routinely
- Bend and stoop routinely
- Have full use of both hands, wrists and shoulders
- Distinguish audible sounds
- Adequately view sonograms, including color distinctions
- Work standing on their feet 80% of the time
- Interact compassionately and effectively with the sick or injured
- Assist patients on and off examining tables
- Communicate effectively with patients and other health care professionals

Standard	Examples of Sonography Technical Standards and Essential Functions
<p><b>Observation</b></p> <p>Ability to participate actively in all demonstrations, laboratory exercise, and clinical experiences in the professional program component and to assess and comprehend the condition of all clients assigned to him/her for examination, diagnosis, and treatment.</p> <p>Such observation and information usually requires functional use of visual, auditory, and somatic sensations.</p> <p>(Sensations arising from the skin — such as <b>touch, pressure, cold, warmth, and pain</b>)</p>	<p>Adequately view sonograms live, simulated, and/or recorded), including color distinctions and the ultrasound unit control panel simultaneously while performing the scan/exam in the low light settings required for sonographic imaging</p> <p>The ability to distinguish gray scale images on computer screen and view/operate ultrasound control panel in ambient to low lighting.</p> <p>Recognize normal and pathologic sonographic characteristics of organs, tissues, and blood flow.</p> <p>Recognize, interpret and respond to facial expressions and body language.</p> <p>Recognize and respond to soft voices or voices under protective garb.</p> <p>Distinguish audible sounds from both the patient and the ultrasound equipment (Doppler).</p>
<p><b>Communication</b></p> <p>Ability to communicate effectively in English using verbal, non-verbal and written formats with faculty, other students, clients, families and all members of the healthcare team</p>	<p>Elicits and transmits information to patients, staff, fellow students, instructors, and other members of the health care team.</p> <p>Receive/ comprehend, write, and interpret verbal and written communication in the academic and clinical settings.</p> <p>Obtains relevant patient clinical information, responds to questions, interprets physician’s orders, and communicates sonographic findings to physician interpreter in both verbal and written formats.</p>
<p><b>Critical thinking</b></p> <p>The ability to analyze information objectively and make a reasoned judgment.</p>	<p>Exhibit openness to contradictory ideas.</p> <p>Assess issues raised by contradictory ideas and justify solutions and determine effectiveness of applied solutions.</p> <p>Receive and react appropriately to constructive criticism.</p> <p>Demonstrates effective clinical decision making to perform sonographic scans/exams in all clinical and lab within required time frames.</p>

<p style="text-align: center;"><b>Motor</b></p> <p>Sufficient motor ability to execute the movement and skills required for safe and effective care and emergency treatment</p>	<p>Static and dynamic strength sufficient to lift some patients, move heavy equipment on wheels (up to 500 lbs.) and to move patients in wheelchairs and stretchers.</p> <p>The ability to exert muscle force repeatedly or continuously over time (including walking, standing or being upright continuously for 8-12 hours)</p> <p>Ensures proper and safe patient positions, movement of the ultrasound unit and other equipment in all settings.</p> <p>Staminal and trunk strength to push and pull, bend and stoop routinely.</p> <p>Dynamic and trunk strength to perform sonographic scans/exams while sitting or standing 80% of the time (dependent on the clinical setting and/or situation).</p> <p>Full use of hands, wrists and shoulders, (arm-hand steadiness, control precision, dynamic flexibility, extend flexibility, finger dexterity, quickly move arms).</p> <p>Demonstrates manual dexterity and fine motor movements to manipulate the ultrasound transducer and control panel simultaneously while achieving the diagnostic objective of the scan/examination (control precision, dynamic flexibility, extent flexibility, finger dexterity, and multi-limb coordination).</p> <p>Dynamic strength, stamina, static strength, control precision, manual dexterity to exert and maintain probe pressure (exert of up to 40 lbs. of sustained/continuous pressure) necessary to acquire ultrasound images.</p>
<p style="text-align: center;"><b>Intellectual</b></p> <p>Ability to collect, interpret and integrate information and make decisions</p>	<p>Read, comprehend, retain, and apply relevant information in textbooks, medical records, and professional literature.</p> <p>Apply knowledge and learning to new situations and problem-solving scenarios.</p> <p>Collect and evaluate pertinent patient data and information to determine relevance to the requested sonographic scan/exam. Integrate medial history and current symptoms to determine the appropriate protocol and tailor the sonographic scan/exam to the patient’s needs.</p> <p>Determine if any contraindications, insufficient patient preparation, or the patient’s physical and/or mental condition will affect the patient’s ability to tolerate the sonographic scan/exam/procedure.</p>

	<p>Measure, calculate, reason, analyze and synthesize sonographic information during the performance of the scan/exam and on appropriate acquired images and/or video clips.</p> <p>Organize and accurately perform the individual steps in a sonographic procedure in the proper sequence.</p> <p>Process, respond, and draw conclusions from the sonographic images, recognize and correct inconsistencies, correlate clinical information and sonographic findings and make specific assessments and determinations based on those findings and established criteria.</p> <p>Uses professional judgement to adapt the protocol for the patient's condition to optimize scan/exam results</p> <p>Notifies supervising physician(s) if emergency care is needed based on the sonographic findings and patient conditions.</p>
<p><b>Behavior and Social Attributes</b></p> <p>Possess the emotional health and stability required for full utilization of the student's intellectual abilities, the exercise of good judgement, the prompt completion of all academic and patient care responsibilities and the development of mature, sensitive, and effective relationships with clients and other members of the health care team.</p> <p>Possess the ability to tolerate taxing workloads, function effectively under stress, adapt to changing environments, display flexibility, and learn to function in the face of uncertainties inherent in clinical setting with patients.</p> <p>Possess compassion, integrity, concern for others, and motivation.</p> <p>Possess the ability to demonstrate professional behaviors and a strong work ethic.</p>	<p>Manage fast paced and heavy didactic and clinical schedules and deadlines. Perform sonographic scans/exams in fast paced clinical settings and during clinical situations including emergency situations.</p> <p>Maintain focus and remain on task to function effectively during instruction and performance of sonograms under stressful conditions while exercising appropriate judgement. Responds to rapidly changing and unpredictable circumstances.</p> <p>Complete daily work load including technically difficult patients, emergency scans/exams, and added scans/exams within allotted time frames.</p> <p>Demonstrate integrity, concern for others/compassion, appropriate interpersonal skills, interest and motivation.</p> <p>Manage personal life and/or obligations to maintain focus on didactic and clinical course requirements, maintain focus on the patient at all times and in all settings (including lab and clinic).</p> <p>Accept and utilize scanning critiques, self-assessment, and feedback to improve sonographic knowledge and skills.</p> <p>Collaborate with classmates to develop professional demeanor in all settings and with all individuals; manage emotions and responses to evaluations and/or feedback.</p>

	Comply with the Sonographic Scope of Practice and Clinical Practice Standards (Society of Diagnostic Medical Sonography: <a href="http://www.sdms.org">www.sdms.org</a> )
<p style="text-align: center;"><b>Professionalism</b></p> <p>Ability to maintain professional appearance and to implement measures to maintain own health</p>	<p>Implement standard precautions</p> <p>Follow established procedures for personal hygiene.</p> <p>Demonstrate a preventative approach to stress management</p> <p>Adhere to the DMS Dress standards in class, lab and clinical sites.</p> <p>Provide patient-centered ethical and compassionate care</p> <p>Comply with the Code of Ethics for the Profession of Diagnostic Medical Sonography (Society of Diagnostic Medical Sonography: <a href="http://www.sdms.org">www.sdms.org</a>)</p>

Tulsa Community College is committed to ensuring that otherwise qualified students with disabilities are given equal access through reasonable accommodations in programs and services. Students who wish to request reasonable accommodations are encouraged to contact the Educational Access Center to start the process for documenting their disability and determining eligibility services.

Diagnostic Medical Sonography Students with disabilities are expected to perform all the essential functions of the program with or without accommodation. While the DMS Program will make every effort to work with our students with accommodations, it is important to note that a faculty member has the right to challenge an accommodation request if he/she believes the student is not qualified and/or if the accommodation would result in a fundamental alteration of the class.

All college students, whether disabled or not, must adhere to the TCC student standards of conduct.

**STUDENT DECLARATION OF MEETING TECHNICAL STANDARDS FOR ADMISSION TO THE DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM**

I have reviewed and understand the Academic & Technical Standards minimum qualifications necessary to perform the essential functions of a Diagnostic Medical Sonographer.

Initial beside the statement that best describes your abilities.

Complete the information on the last page.

Return the completed document to appropriate DMS Faculty Member.

**Observation:**

\_\_\_\_\_ I am capable of meeting these requirements. \_\_\_\_\_ I am not capable of meeting these requirements.\*

I am capable of meeting these requirements with the following accommodations.\*

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**Communication:**

\_\_\_\_\_ I am capable of meeting these requirements. \_\_\_\_\_ I am not capable of meeting these requirements.\*

I am capable of meeting these requirements with the following accommodations.\*

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**Critical Thinking:**

\_\_\_\_\_ I am capable of meeting these requirements. \_\_\_\_\_ I am not capable of meeting these requirements.\*

I am capable of meeting these requirements with the following accommodations.\*

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**Motor:**

\_\_\_\_\_ I have static and dynamic strength that meets the requirements of the profession.

\_\_\_\_\_ I have the muscle force strength that meets the requirements of the profession.

\_\_\_\_\_ I have the strength to move the ultrasound unit that meets the requirements of the profession.

\_\_\_\_\_ I have dynamic and trunk strength that meets the requirements of the profession.

\_\_\_\_\_ I have full use of my hands, wrists, and shoulders that meets the requirements of the profession.

\_\_\_\_\_ I have the manual dexterity and fine motor movements that meets the requirements of the profession.

\_\_\_\_\_ I have the dynamic strength, stamina, static strength, control precision, manual dexterity that meets the requirements of the profession.

**Motor**

I am capable of meeting these requirements. \_\_\_\_\_ I am not capable of meeting these requirements.\*

\_\_\_ I am capable of meeting these requirements with the following accommodations.\*  
\_\_\_\_\_

**Intellectual:**

\_\_\_ I am capable of meeting these requirements. \_\_\_ I am not capable of meeting these requirements.\*

I am capable of meeting these requirements with the following accommodations.\*  
\_\_\_\_\_

**Behavior and Social Attributes:**

\_\_\_ I am capable of meeting these requirements. \_\_\_ I am not capable of meeting these requirements.\*

I am capable of meeting these requirements with the following accommodations.\*  
\_\_\_\_\_

**Professionalism:**

I am capable of meeting these requirements. \_\_\_ I am not capable of meeting these requirements.\*

I am capable of meeting these requirements with the following accommodations.\*  
\_\_\_\_\_

**Accommodations**

\* Indicates awareness of applicant to make an appointment with the Educational Access Center by contacting: (918) 595-7115 or by email at [eac@tulsacc.edu](mailto:eac@tulsacc.edu). And delivering this form for determination of reasonable accommodations.

I, the undersigned, do hereby testify that I have read and understand the Clinical / Academic Standards for Admission to the Diagnostic Medical Sonography Program and the above statements, as indicated, are true.

\_\_\_\_\_  
Print Name and TCC ID

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
TCC Email Address