



DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM

**MINIMUM TECHNICAL STANDARDS FOR  
ADMISSION AND CONTINUATION**

**Read this information sheet carefully and retain for your records**

**Introduction**

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act require that no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or denied the benefits of SUNY Downstate Health Sciences University's services, programs or activities or be subjected to discrimination by SUNY Downstate. The term "qualified individual with a disability" means an individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or for participation in programs or activities. The Committee on Admissions and Academic Standing will not discriminate against qualified individuals with disabilities. Students must be able to perform the essential functions of the program in order to meet certain minimum academic and technical standards. In carrying out their functions, the Committee will be guided by the technical standards set forth in this proposal as standards necessary for admissions, continuance and successful completion of the program. This information is used in conjunction with the policies and procedures as delineated in the *Diagnostic Medical Sonography Information and Policies student handbook*.

**Technical Standards**

The candidate in Diagnostic Medical Sonography program must possess the intellectual ability to learn, integrate, analyze, and synthesize data. They must have functional use of the sense of vision, hearing, and equilibrium. Candidates must also have motor function capabilities to meet the demands of Diagnostic Medical Sonography education and the demand of patient care.

The Diagnostic Medical Sonography applicant must also possess the following capabilities, attributes and skills.

- Observation,
- Communication,
- Motor Coordination,
- Intellectual, including conceptual, integrative, and quantitative abilities, and
- Behavioral and Social.

**1. Observation**

The ability to observe is required for demonstrations and visual presentations in lectures and laboratories. The ability to discriminate the difference between shades of blacks, grays, and whites, and various color combinations that indicate blood flow and hemodynamics on both display devices and recorded images (film and paper) is critical for mastering scan interpretation. The student must also be able to observe patients accurately and completely, both at a distance and closely.

**2. Communication**

The Diagnostic Medical Sonography student must be able to communicate effectively via speech, reading, and writing. He/she should be able to hear and observe clinical staff and patients in order to elicit information, perceive nonverbal communication, describe changes in mood, activity in posture, and recognize and respond to an emergency or urgent situation.

In addition to patient and clinical staff communication, the student must be able to communicate orally and in writing with physicians, faculty, peers and other health care professionals.

The student must possess sufficient auditory perception, such as needed to receive communication from physicians and other allied health personnel and patients in routine and emergency situations.

### 3. Motor Coordination and Strength

An ultrasound student should possess the ability for gross and fine motor function, manual dexterity, and physical strength to:

- Apply general care and emergency treatment to patients
- Help lift patients who may be unable to move themselves from wheelchairs or beds to the examination table and vice versa (up to 10-25 times per day) lift and/or move objects or instruments (50 pounds or more routinely).
- Manipulate ultrasound equipment, computers, and peripherals.
- The student should be sufficiently mobile to execute patient movements or positioning to obtain diagnostic quality images.
- The student must be able to push and maneuver all Ultrasound imaging equipment up to approximately 500lbs and during mobile procedures manipulate ultrasound equipment along with patient equipment on the nursing unit.
- Organize and accurately perform the individual steps in a sonographic examination in the proper sequence.
- See and function adequately in a semi-dark environment.

### 4. Distinguish audible sounds

To adequately interpret Doppler shifts and color designations on film and paper images.

### 5. Work standing on his/her feet 80% of the time

Have full use of hands, wrists, and shoulders involving the coordination of muscular movements, equilibrium, and sensation.

### 6. Intellectual

Conceptual, integrative and quantitative abilities are required of all prospective ultrasound students. Problem solving is a critical skill demanded of sonographers and requires all these abilities.

The student must also be able to comprehend multi-dimensional relationships and the spatial relationships of anatomic structures.

Students must have the ability to measure, calculate, reason, analyze, and synthesize data. Problem solving and diagnosis, including obtaining, interpreting, and documenting data, are critical skills demanded of Diagnostic Medical Sonographers which require all of these intellectual skills.

Students must be able to maintain professional conduct and appearance, maintain client confidentiality and operate within the scope of practice.

Students must also have the ability to be assertive, delegate responsibilities appropriately, and function as part of a medical team.

The student must have the capacity and willingness to recognize limitations of their skills, legal authority and authorization, and must be willing to seek appropriate supervision and direction.

### 7. Behavioral and Social Attributes

A student must be emotionally healthy. The student must be able to use his/her intellectual ability and exercise good judgment, to complete all responsibilities attendant to obtaining a quality ultrasound study and providing care to patients.

A student must be able to develop mature, sensitive, and effective relationships with patients and colleagues.

An ultrasound student must be able to tolerate physical and emotional stress while continuing to function effectively.

A student must also possess qualities of adaptability, flexibility, and be able to function in the face of uncertainty. He/she must possess a high level of empathy, motivation to serve, integrity, and a consciousness of social value. All candidates must possess sufficient interpersonal skills to interact positively with people from all levels of society, and all ethnic and religious backgrounds.

A student must be able to provide professional and technical services in spite of the stresses of a heavy workload.

A student must be able to minimize ultrasound exposure to patients, self and others while being honest, compassionate, ethical and responsible.

The student must be able to develop, maintain, and demonstrate ethical behaviors with respect to coworkers, preceptors, faculty members, patients, the families of patients and other stakeholders in healthcare training and delivery.

## Conclusion

The SUNY Downstate Health Sciences University Diagnostic Medical Sonography Program and its sponsoring institution will attempt to develop creative ways of opening the Program to competitive, qualified individuals with disabilities. In doing so, however, the Program and sponsoring institution must maintain the integrity of the curriculum and preserve those elements deemed essential in the field of medical sonography. The Program and sponsoring institution cannot compromise the health and safety of patients. An applicant or student who is unable to meet the minimum academic and technical standards is not qualified for the practice of the profession.

## Signature

I have read, understand and agree to the technical standards as published above.

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Signature

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Date