

Technical Standards for the NOVA Diagnostic Medical Sonography Program

The abilities and skills which students must possess in order to complete the training associated with the Northern Virginia Community College Health Sciences and Nursing Programs are referred to as **Technical Standards**. These Technical Standards are a group of minimal physical and cognitive abilities as well as sufficient mental and emotional stability to confirm that students are able to complete the entire course of study, participate fully in all aspects of training, and be deployable as competent Health Sciences and Nursing students, with or without reasonable accommodation.

The NOVA Health Sciences & Nursing programs have the ethical responsibility not only for the safety of patients with whom students will come in contact, but to the public to assure that students can become fully competent Health Sciences & Nursing professionals. Thus, it is important that persons admitted to our programs possess the intelligence, integrity, compassion, humanitarian concern, and physical and emotional capacity necessary to practice Health Sciences & Nursing skills. Students must verify that they meet these Technical Standards at the time of matriculation to our programs and maintain them during their training. Students are obligated to alert the Program Directors in Health Sciences & Nursing programs of any change in their ability to fulfill the technical standards. Students who do not meet Technical Standards are at risk for dismissal from the program in which they are enrolled.

To successfully complete the clinical component of the Diagnostic Medical Sonography program, the student must be capable of carrying out all assigned duties and technical standards of a professional Sonographer. These Technical Standards are based on the minimum tasks to be performed by graduates of the program as recommended by the Society of Diagnostic Medical Sonography, the American Society of Radiologic Technologists and Thomas Jefferson University. Listed below are the technical standards that all applicants must meet in order to participate in and complete the general sonography, cardiac sonography and vascular sonography programs. These Technical Standards will be reviewed by the NOVA Health Sciences Medical Sonography Advisory Committee during their annual meeting.

Technical Standard I: Observation

- Students must be able to observe demonstrations and participate in physical examination sessions, clinical skills workshops, observe the difference of normal versus pathological states. They must be able to obtain a medical history and perform a complete physical examination in order to integrate findings based on these observations and to develop an appropriate diagnostic and treatment plan.
- Students must have sufficient visual acuity to read sonography prescriptions and patient charts, observe conditions of the patient and evaluate sonographic images.
- Students are required to adequately view sonograms, including color distinctions and shades of gray.
- Students must have the ability to perceive pertinent detail in objects or in pictorial or graphic material; to make visual comparisons and discriminations and see slight differences in shape, contour and texture of organs and vascular structure; to comprehend forms in space and understand relationships of plane and solid objects; the ability to visualize objects of two or three dimensions.
- Students must be able to use auditory, tactile and visual senses to assess the physiological status of the patient.

Technical Standard II: Communication

- Students must be able to communicate effectively and sensitively with patients, their families, and members of the health team. Students must be able to communicate effectively with patients from different social and cultural backgrounds, as well as develop effective professional rapport with patients and co-workers. Students must be able to record examination and diagnostics results clearly, accurately and efficiently. Students must be able to communicate effectively in English with patients, family and other health care professionals in a variety of patient settings.
- Students must have sufficient auditory perception to receive verbal communication from patients and members of the healthcare team to obtain and record an accurate patient history and to assess the health needs of people through the use of monitoring devices such as intercom systems, cardiac monitors, respiratory monitors and fire alarms.
- Students must have sufficient communication skills in English (verbal, reading, writing) to interact with individuals and to communicate their needs promptly and effectively, as may be necessary in the patient's/client's interest, collaborate with physicians and other members of the healthcare team, and provide an oral or written summary of the technical findings to the physician for medical diagnosis.
- Students must be able to read, write and communicate effectively in English.

Technical Standard III: Motor

- Students must possess the capacity to perform physical examinations and diagnostic maneuvers. They must be able to respond to emergency situations in a timely manner and provide general and emergency care. They must possess adequate sensory function and motor coordination to fulfill minimum competency objectives for inspection, palpation, percussion and auscultation necessary to perform a physical examination. They must possess sufficient postural control, neuromuscular control and eye-to-hand coordination in order to utilize standard medical/surgical instruments to participate in the inpatient and outpatient setting and other clinical activities.
- Students must have sufficient gross and fine motor coordination to respond promptly and to implement skills related to the performance of sonographic imaging examinations and/or cardiovascular procedures, such as positioning and transporting patients and obtaining diagnostic images. Sonographers must be able to manipulate sonographic equipment in order to achieve diagnostic images.
- Must successfully complete and maintain CPR certification
- Students must be able to lift, transfer and/or assist patients from wheelchair/stretchers to exam table
- Students must be able to lift, move, reach, push or pull heavy equipment on wheels (up to 500 lbs.)
- Students must be able to perform and sustain repeated bending, stretching, stooping, kneeling, reaching overhead, sitting and standing
- Students must have the manual dexterity and coordination to manipulate small knobs and toggle switches and control accessory equipment.
- Students must have the manual dexterity and coordination to manipulate equipment to respond to patient safety
- Students must have the ability to maintain prolonged arm positions necessary for scanning
- Students must be able to perform their job duties while standing on their feet 80% of the time.

Technical Standard IV: Intellectual-Conceptual, Integrative and Quantitative Abilities

- Students must be able to learn through a variety of modalities including, but not limited to, classroom instruction; small group, team and collaborative activities; individual study; preparation and presentation of reports; and use computer technology. Students must have the mental capacity to assimilate and learn a large amount of complex, technical and detailed information in order to formulate diagnostic and therapeutic plans.
- Students must have sufficient intellectual and emotional function to plan and implement quality patient care, analyze technical information, and use independent judgment in recognizing the need to extend the scope of the procedure according to the diagnostic findings.
- Students must be able to demonstrate the ability to integrate diagnostic sonograms, laboratory results, patient history and medical records and adapt sonographic examinations as necessary.
- Students must be able to demonstrate the ability to organize and accurately perform the individual steps in a sonographic procedure in the proper sequence.
- Students must be able to demonstrate the ability to read and extract information from the medical chart or patient requisitions.
- Students must be able to demonstrate the ability to explain the clinical study verbally and/or in writing.

Technical Standard V: Behavioral and Social Attributes

- Students must have the emotional stability to function effectively under stress and to adapt to an environment that may change rapidly, without warning, and/or in unpredictable ways. They must accept responsibility for learning, exercising good judgment, and promptly completing all responsibilities attendant to the diagnosis and care of patients. They must understand the legal and ethical standards of the medical profession.
- Students must be able to work effectively, respectfully and professionally as part of the healthcare team, and to interact with patients, their families, and health care personnel in a courteous, professional, and respectful manner.
- Students must be able to contribute to collaborative, constructive learning environments; accept constructive feedback from others; and take personal responsibility for making appropriate positive changes.

Technical Standard VI: Ethical and Legal Standards

- Students must be able to understand the basis and content of both general and medical ethics. The student must possess attributes that include compassion, empathy, altruism, integrity, responsibility, and tolerance. Students must be able to recognize limitations in their knowledge, skills and abilities and to seek appropriate assistance with their identified limitations. Students whose performance is impaired by abuse of alcohol or other substances are not suitable candidates for admission, promotion, or graduation. In addition, should the student be convicted of any felony offense while in the Health Sciences & Nursing Programs, they agree to immediately notify the program as to the nature of the conviction. Failure to disclose prior or new offenses can lead to disciplinary action that may include dismissal.

Student Signature: _____

Date: _____