

The University of Kansas Medical Center
School of Allied Health
Medical Imaging Educational Programs

Technical Standards

Instructions to applicants: You are required to read the following information. The Certificate in Diagnostic Ultrasound Technology General/Vascular signifies that the holder has the knowledge and skills to be a candidate to take the national board registries. Therefore, all individuals admitted to the University of Kansas Diagnostic Ultrasound Technology General/Vascular Program will be asked to verify they can meet these standards with or without accommodation(s). Applicants who disclose a disability are considered for admission if they are otherwise qualified.

DESCRIPTION OF THE PROFESSION:

Diagnostic Ultrasound is the multi-specialty medical field that utilizes high frequency sound waves to produce images of internal structures and hemodynamics that assist in the diagnosis of disease or injury and fetal development. The Sonographer is a highly skilled Allied Health professional qualified by education to provide patient services using diagnostic techniques under the supervision of a licensed doctor of medicine. The sonographer may provide this service in a variety of settings where the physician is responsible for the use and interpretation of appropriate procedures. Responsibilities include, but are not limited too: 1. Obtain, review, and integrate pertinent patient history and supporting clinical data to facilitate optimum diagnostic results. 2. Perform appropriate procedures and record anatomic, pathologic, and/or physiologic data for interpretation by a physician. 3. Record, analyze, and process diagnostic data and other pertinent observations made during the procedure for presentation to the interpreting physician. 4. Exercise discretion and judgement in the performance of sonographic and/or other non-invasive/invasive diagnostic services. 5. Demonstrate appropriate communication skills with patients and colleagues. 6. Act in a professional and ethical manner. * The diagnostic medical sonographer exhibits professionalism in the performance of these duties, demonstrates an empathetic and instructional approach to patient care, respects and promotes patient rights and maintains confidentiality of information as required. He/she applies knowledge of ultrasound physics, instrumentation and biological effects while minimizing exposure of the general public, patient, fellow workers, and self to as low as reasonably achievable (ALARA). Professional growth and development is achieved through participation in medical and technical education and research to enhance the quality of patient care.

Upon successful completion of the University of Kansas Medical Center's Diagnostic Ultrasound Technology General/Vascular Certificate Program the graduate should be able to demonstrate entry-level competencies in the above areas of the professional practice.

* Taken from the Standards and Guidelines for an Accredited Educational Program for the Diagnostic Medical Sonographer. Standards (Essentials) initially adopted in June 1979; revised in 1987, 1996, 1991, and 1997.

The certificate granted at the completion of the Diagnostic Ultrasound Technology General/Vascular Program signifies that the holder is a candidate to sit for the American Registry of Diagnostic Medical Sonographers board examinations for Abdomen, Ob/Gyn, Vascular Technology, and General and Vascular ultrasound physics and instrumentation. This certificate also signifies that the holder is prepared for entry into the profession of Diagnostic Medical Sonography, therefore it ensues that graduates must have the knowledge and skills to function in a broad variety of clinical situations and demonstrate entry level competencies. Therefore, all students admitted to the program must meet the following abilities and expectations.

1. Observation:

Visual acuity is necessary for utilizing imaging equipment, evaluating the ultrasound exam in order to acquire appropriate diagnostic information and observing patient's vital signs.

The ultrasound applicant/student must observe and learn from experiences in the imaging clinic, Breast Center, Ob/Gyn, Cardiology Vascular clinic and classroom. Examples are but not limited to: imaging procedures, performing and analysis of imaging procedures, computer analysis and patient care.

2. Communication:

Hearing and speech needs to be sufficient to communicate effectively and efficiently with all customers. Communications include not only speech but also reading and writing.

The Diagnostic Ultrasound Technology General/Vascular applicant/student must be able to:

- Read and comprehend technical and professional materials
- Follow verbal or written instruction in order to correctly and independently perform procedures
- Clearly communicate with patients and their families prior to and during imaging procedures
- Use the telephone
- Communicate with faculty members, fellow students, staff and other healthcare professions verbally and in a recorded format (writing, typing, etc.)
- Independently prepare papers and take examinations.

3. **Psychomotor:**
The Diagnostic Ultrasound Technology General/Vascular applicant/student must have manual dexterity and good physical coordination to assist patients and operate ultrasound-imaging equipment. Students must have full utility of arms, hands and fingers in order to perform examinations, operate equipment and maintain prolonged arm positions necessary for scanning. This is necessary for the ability to help patients up off examination tables and to assist patients and other sonographers with lifting patients out of wheel chairs when necessary. 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.

4. **Intellectual:**
The Diagnostic Ultrasound Technology General/Vascular applicant/student must:
Possess the following intellectual skills: comprehension, measurement, mathematical calculation, problem solving, reasoning, integration, analysis, comparison, self expression and criticism
Be able to exercise sufficient judgement to recognize and correct performance deviations.

5. **Behavioral and Social:**
The Diagnostic Ultrasound Technology General/Vascular applicant/student must:
Be able to manage time to complete didactic and clinical tasks within realistic constraints
Possess emotional health necessary to effectively employ intellect and exercise appropriate judgement
Be able to provide professional and technical services in spite of the stresses of heavy workloads.
Be flexible and creative and adapt to clinical and didactic changes
Recognize potentially hazardous materials equipment and situations and proceed safely to reduce risk of injury to patient or self.
Be able minimize ultrasound exposure to patients, self and others.
Support and promote the activities of fellow students and health care professionals
Be honest, compassionate, ethical and responsible

6. **Technical:**
The Diagnostic Ultrasound Technology General/Vascular applicant/student must:
Perform diagnostic ultrasound imaging procedures by demonstrating appropriate competency in the following:
Evaluation of requisition and patient assessment
Patient and family education
Patient care and management
Equipment configuration and operation
Positioning and imaging skills

Adhering to established departmental procedures and protocols
Work efficiently and cope with emergency situations
Imaging processing, evaluation and analysis with physician

It is your responsibility to notify the Admissions Committee and/or one of the Co-Program Directors if there is any reason you cannot meet the expectations for Diagnostic Ultrasound Technology General/Vascular students described above with or without reasonable accommodations. If there is any expectation that you cannot meet with or without reasonable accommodation, give explanation in the space provided (attach additional pages if necessary)

Individuals with disabilities are encouraged to apply to the program. Candidates whose response indicates that they cannot meet one or more of the expectations will be reviewed further by the Admissions Committee, with applicant, the University's Equal Opportunity/Disability Specialist, and faculty input, to determine if reasonable accommodations might be possible to facilitate successful completion of the Diagnostic Ultrasound Technology General/Vascular Certificate curriculum and preparation for the national board registry examinations.

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