

# Certificate in Diagnostic Ultrasound Technology (General and Vascular)

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KU's Diagnostic Ultrasound and Vascular Technology certificate is a 21-month, accredited certificate program that equips the student sonographer with didactic and clinical training to become a Registered Diagnostic Sonographer.

A certificate from the University of Kansas is awarded to the student upon successfully completing the program at its KU Medical Center campus in Kansas City, Kansas. Instruction is provided by currently practicing advanced sonographers.

Graduates are candidates to take the national registry examinations given by the American Registry of Diagnostic Medical Sonographers in the areas of abdomen, obstetrics and gynecology, vascular technology, and sonography principles and instrumentation. Those who pass the exams become registered Diagnostic Medical Sonographers and Registered Vascular Technologists.

More about this program and the profession can be found on the program's website (<http://www.kumc.edu/school-of-health-professions/ultrasound.html>).

## Admission

### ACADEMIC REQUIREMENTS

A certificate, associate, or bachelor's degree in a health care or science-related field is preferred.

Students without a certificate, associate, or bachelor's degree must meet one of the following criteria to be considered for admission:

1. Currently enrolled in a degree program with an emphasis in health care or science.  
– or –
2. Have substantial patient care experience working in the health care field.

It is not required, but strongly encouraged, for applicants to have observation hours with a registered sonographer prior to application.

All college coursework must be from accredited institutions. Credentials or transcripts not from an accredited U.S. academic institution will require evaluation by KU before acceptance.

### PREREQUISITE COURSES

The following courses must be completed from an accredited institution with a "C" grade or better to be eligible for the program:

- College Algebra
- English or Communication
- Human Anatomy and Physiology
- Medical terminology
- Physics

These courses can be in progress at the time of application; verification of grades and completion will be done before the start of fall semester classes.

### GRADE POINT AVERAGE

An overall grade point average of 2.5 (on a 4.0 scale) for college coursework is required to be eligible to apply. In addition, student transcripts must document an individual course grade of no less than "C" on each prerequisite course listed above.

### HEALTH AND PHYSICAL REQUIREMENTS

Good physical and mental health are essential to this field. Specifically, excellent visual acuity is necessary. The student must also possess manual dexterity, sufficient hearing and speech ability, and good physical coordination in positioning patients and operating equipment. Students must have full utility of both arms, both hands and fingers in order to perform examinations and operate equipment. The ability to handle extremely heavy objects is required. Physical or other disabilities are evaluated on a case-by-case basis by the program and by the Equal Opportunity Office at KU Medical Center.

### TECHNICAL STANDARDS

All individuals admitted to the program will be asked to verify that they can meet the technical standards (<https://www.kumc.edu/school-of-health-professions/academics/departments/respiratory-care-and-diagnostic-science/academics/diagnostic-ultrasound-and-vascular-technology-certificate-program/technical-standards.html>) with or without accommodation(s). Applicants who disclose a disability are considered for admission if otherwise qualified.

### VACCINE AND CLINICAL SITE REQUIREMENTS

Matriculated students will need to provide an immunization profile prior to participating in curricular and/or clinical experiences required by the program. Please read the information found at the bottom of the program's curriculum page (<https://www.kumc.edu/school-of-health-professions/academics/departments/respiratory-care-and-diagnostic-science/academics/diagnostic-ultrasound-and-vascular-technology-certificate-program/curriculum.html>) and be sure that you understand these requirements.

### BACKGROUND CHECK AND DRUG SCREEN

The Joint Commission requires all incoming students to provide a background check (<https://www.kumc.edu/school-of-health-professions/academics/admissions-and-financial-aid/background-checks-and-drug-screening-for-students.html>) report to KU. This one-time fee must be paid directly by the student to the company performing the background investigation. Students will be asked to provide information and make the payment once officially accepted into the program. Admission will not be final until KU has received the background check report.

Drug screenings are required for work at clinical sites. These are not required for admission but are to be expected later. The clinical site will provide information on its requirements prior to entering the fieldwork portion of the program. Depending on geographic location, more than one drug test may be needed. For more information, please see the School of Health Professions background check and drug screening information. (<https://www.kumc.edu/school-of-health-professions/academics/admissions-and-financial-aid/background-checks-and-drug-screening-for-students.html>)

## INTERNATIONAL STUDENTS

An applicant is considered an international student if he or she requires a visa, currently resides in the U.S. with non-immigrant status or currently resides in the U.S. while applying for permanent residency. Additional requirements and documentation, such as proof of English language proficiency, are required for international students to become eligible for KU programs. Review the information for international students (<https://www.kumc.edu/school-of-health-professions/academics/admissions-and-financial-aid/information-for-international-applicants.html>) before applying.

See also: English Language Requirements (<https://www.kumc.edu/academic-and-student-affairs/departments/office-of-international-programs/inbound-programs/information-for-students/academic-english-requirements.html>)

Note: KU reserves the right to make changes to any admission requirement or policy at any time without notice.

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Admissions requirements and prerequisites are subject to change.

## Certificate Program Requirements

The student will spend 40 hours a week in the 21-month program, divided between classroom courses and clinical application. Didactic studies include courses in medical law and ethics, introduction to sonography, sonography principles and instrumentation, abdomen, OB/GYN, small parts, and vascular technology.

## Program Curriculum

Code	Title	Hours
UTEC 300	Introduction to Diagnostic Ultrasound and Medical Law and Ethics for the Imaging Professional	3
UTEC 315	Sonography Principles and Instrumentation II	2
UTEC 325	Abdominal Sonography II	2
UTEC 330	Gynecologic Sonography	2
UTEC 335	Obstetrical Sonography	3
UTEC 340	Clinical Internship I	5
UTEC 345	Clinical Internship II	6
UTEC 350	Small Parts Sonography	2
UTEC 410	Vascular Technology I	2
UTEC 415	Vascular Technology II	2
UTEC 420	Abdominal Sonography III	1
UTEC 430	Advanced Sonography Seminar I	3
UTEC 435	Advance Sonography Seminar II	4
UTEC 440	Clinical Internship III	4
UTEC 445	Clinical Internship IV	8
UTEC 450	Clinical Internship V	8

## Diagnostic Ultrasound and Vascular Technology Plan of Study

### Year 1

Fall	Hours	Spring	Hours	Summer	Hours
UTEC 300	3	UTEC 315	2	UTEC 410	2
UTEC 310	2	UTEC 325	2	UTEC 420	1
UTEC 320	2	UTEC 335	3	UTEC 440	4

UTEC 330	2	UTEC 345	6
UTEC 340	5	UTEC 350	2
<b>14</b>		<b>15</b>	
<b>7</b>			

### Year 2

Fall	Hours	Spring	Hours
UTEC 415	2	UTEC 435	4
UTEC 430	3	UTEC 450	8
UTEC 445	8		
<b>13</b>		<b>12</b>	

**Total Hours 61**

## Technical Standards

### Diagnostic Ultrasound and Vascular Technology Certificate Program

The program prepares candidates to practice diagnostic ultrasound and vascular technology within organizations and businesses. Graduates require knowledge and skills to function in diverse practice settings. An essential requirement for completing the diagnostic ultrasound and vascular technology certificate program is an ability to function within a clinical learning environment and to interact with a variety of interprofessional teams and patients. Candidates admitted to the program must be able to perform the following.

Successful completion of the certificate program in diagnostic ultrasound and vascular technology implies that the graduate will have acquired the knowledge and skills necessary to safely and competently deliver patient care as diagnostic ultrasound and vascular technology provider. In the role as a health care provider, diagnostic ultrasound and vascular technologists be able to deliver urgent and non-urgent care to patients of all ages and in all settings. Including hospital, chronic care facilities and in the home. The current health care system also requires the diagnostic ultrasound and vascular technologist to be skilled in age-specific patient education. Therefore, all applicants and matriculating students must meet the expectations listed below. These expectations may be achieved with or without reasonable accommodation.

#### The following abilities and expectations are required of all graduates and matriculating students in the Department of Respiratory Care and Diagnostic Science.

**Visual – Auditory:** The applicant/student must be able to accurately observe patients from a distance or close at hand, correctly read and interpret digital, analogue or graphic gauges, scales and monitors, and recognize biohazardous fluids. The applicant/student must be able to hear audio and see visual alarms. They must also be able to hear breath and heart sounds with a stethoscope and see cardiac/pulmonary waveforms on monitoring screens.

**Sensory-Motor:** The applicant/student must have sufficient fine and gross motor skill capabilities to perform patient care procedures. These procedures include but are not limited to the following: palpating, auscultating, percussing the chest, administering medications using airway and endotracheal access, obtaining blood samples from veins and arteries, performing cardiopulmonary resuscitation, turning and lifting patients, moving heavy, bulky equipment, maneuvering in tight places, and assembling and calibrating respiratory care equipment.

**Communication:** The applicant/student must be able to communicate accurately, orally and in writing, with all members of the healthcare team. They must also be able to perceive non-verbal communication. They must

be able to communicate effectively and sensitively with patients, families and health care providers.

**Intellectual-Conceptual, Integrative, and Quantitative Abilities:** The applicant/student must be able to comprehend and apply concepts to the clinical setting. This involves physiologic measurements, mathematical computation, information gathering, interpretation and analysis of data, and problem solving.

**Behavioral and Social Attributes:** The applicant/student must act professionally and exercise good judgement, critical thinking, complete patient care responsibilities, and maintain effective relationships with others in classroom, laboratory and clinical settings. Applicants/students must be able to tolerate physically taxing workloads and to function effectively under stress. They must be able to adapt to changing environments, display flexibility and function in the uncertainties inherent to the health care setting. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all important personal important qualities.

### **TECHNICAL STANDARDS FOR ADMISSION AND RETENTION**

Technical standards identify the requirements for admission, retention, and graduation of applicants and students respectively. I have reviewed and understand the requirements set forth in the Technical Standards for admission to, continuation in, and graduation from the KU School of Health Professions Department of Respiratory Care and Diagnostic Science.

To my knowledge, I can meet the requirements set forth in the Technical Standards with or without reasonable accommodation. I understand that it is the responsibility of candidates needing accommodation to register with and provide documentation of their disability and specific functional limitations to the Academic Accommodations Office, (913) 945-7035 or [cukoko@kumc.edu](mailto:cukoko@kumc.edu). Candidates are encouraged to engage in this process now, in advance of new student orientation and the start of classes. Candidates are also encouraged to review The Students with Disabilities Policy, which contains additional information related to academic accommodations and is available at:

<https://kumc-publicpoliciesandprocedures.policystat.com/policy/13228748/latest>

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