

## Program Information

### Diagnostic Medical Sonography

#### Career Information

The Diagnostic Medical Sonography program combines didactic and clinical study that enables the graduate to function in the medical community as a Diagnostic Medical Sonographer. Sonographers perform medical imaging using sophisticated ultrasound instrumentation. Course work includes effective communication and patient care skills combined with knowledge of physics, human anatomy, physiology and pathology, all of which are essential skills in obtaining high quality sonographic images. The program is a four semester certificate program of full-time study. A certificate in Diagnostic Medical Sonography is awarded to those students completing the full time program. Graduates are eligible to apply to the American Registry of Diagnostic Medical Sonographers (ARDMS) for examinations in physics and a specialty of their choice. Graduates find employment in hospitals, physician's offices, mobile services, and private clinics.

#### Admission Requirements

Students must adhere to all the admission policies and requirements of the School in addition to the following:

- Credential in a health career or credential in a health career with work experience.
- Completion of a 2 year health career education program, completion of a health career education program plus full time work experience with direct patient health care equal to a total of at least 20 months.

➤ Unrestricted health career license, certification or registration required.

➤ Course work completion in the following with a cumulative 2.5 GPA:

- Biological Science
- Communication Skills
- Algebra
- Physics
- Medical Terminology
- Human Anatomy & Physiology
- Patient Care
- Medical Ethics & Law
- General Pathophysiology

Following acceptance into the program, the student must complete a health history, provide evidence of immunization and/or immunization titers for measles, mumps, rubella (MMR) and Varicella, and verify compliance with the Core Performance Standards for Sonography.

An applicant who meets all admission requirements is not automatically guaranteed admission to the program. Admission is based in part upon space availability. The School reserves the right to immediately dismiss any applicant who have falsified their application, have unsatisfactory criminal background checks, prior felony convictions, positive drug screens, or they miss the deadline for screening.

Students should be aware that they will be required to provide evidence of a health history, immunization and/or immunization titers, submit to drug screenings and undergo criminal and child protective services background checks, and verify Core Performance Standards required by the Sonography Program. Students who refuse to offer this information will be denied entry into the Sonography Program.

Completion of course work and/or graduation from the program does not guarantee that a student will be eligible to sit for the Registry Exam. Students who may have questions regarding the criminal background checks need to contact the Program Director for Sonography.

## Program of Studies

### **SOUTHSIDE REGIONAL MEDICAL CENTER DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM 2008 - 2010**

#### *Spring 1*

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DMS courses:  
 Cross Sectional Anatomy - 2 credits  
 Introduction to Sonography - 2 credits  
 Abdominal & Small Parts - 4 credits  
 Instrumentation I - 3 credits

Total DMS - 11 credits

General Education Courses:  
 RBC AS Degree Electives - 6 credits

Spring 1 Total - 17 credits

#### *Summer*

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DMS courses:  
 Instrumentation II - 3 credits  
 OB/Gyn - 5 credits  
 Clinical I - 4 credits

Total DMS - 12 credits

General Education Courses:  
 ► RBC AS Degree Electives - 6 credits

Summer Total - 18 credits

#### *Fall*

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DMS courses:  
 Introduction to Vascular - 3 credits  
 Ultrasound Seminar I - 2 credits  
 Advanced Imaging - 3 credits  
 Clinical II - 6 credits

Total DMS - 14 credits

General Education Courses:  
 RBC AS Degree Electives - 3 credits

Fall Total - 17 credits

#### *Spring 2*

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DMS courses:  
 Ultrasound Seminar II - 2 credits  
 Clinical III - 8 credits

Total DMS - 10 credits

General Education Courses:  
 RBC AS Degree Electives - 8 credits

Spring 2 Total - 18 credits

## Diagnostic Medical Imaging Program Course Descriptions

### *DMS 200 Introduction to Ultrasound*

Introduces the diagnostic foundations of diagnostic medical sonography, including terminology, scan plane orientations, anatomical relationships, departmental administrative operations, hospital organization, ethical issues, and basic patient care principles. Prerequisite: Admission to the program. Lecture 2 hours per week. (2 credits, 30 hours lecture)

### *DMS 220 Cross Sectional Anatomy*

Studies sectional anatomy in the transverse, longitudinal and coronal planes, with emphasis on the organs of sonographic interest within the abdominal-pelvic cavity. Prerequisite: Admission to the program. (2 credits, 30 hours lecture)

### *DMS 50 Clinical Education I*

Develops the student's ultrasonic skills in a diagnostic environment; may include on-campus laboratories, private office settings, as well as hospital rotations. Includes experience in abdominal, pelvic and obstetrical and small parts scanning. Prerequisite: DMS 250. (4 credits, 180 hours clinical)

### *DMS 251 Clinical Education II*

Develops the student's ultrasonic skills in a diagnostic environment; may include on-campus laboratories, private office settings, as well as hospital rotations. Includes experience in abdominal, pelvic and obstetrical and small parts scanning.

Prerequisite: DMS 250. (6 credits, 270 hours clinical)

### *DMS 252 Clinical Education II*

Develops the student's ultrasonic skills in a diagnostic environment; may include on-campus laboratories, private office settings, as well as hospital rotations. Includes experience in abdominal, pelvic and obstetrical and small parts scanning. Prerequisite: DMS 251. (8 credits, 360 hours clinical)

### *DMS 260 Ultrasound Instrumentation I*

Discusses and solves mathematical problems associated with human tissue, basic instrumentation and scanning technology. Prerequisite: Admission to the program. (3 credits, 45 hours lecture)

### *DMS 261 Ultrasound Instrumentation II*

Focuses on areas of ultrasonic, instrumentation, image artifacts, biologic effects, quality control, as well as Doppler principles, applications and basic types of equipment through lecture. Prerequisite: DMS 260. (3 credits, 45 hours lecture)

### *DMS 270 Abdominal and Small Parts Imaging*

Examines the clinical applications within the specialty of abdominal sonography including interpretation of normal and abnormal sonographic patterns, pathology, related clinical signs and symptoms, normal variants and clinical laboratory tests. Includes laboratory sessions on basic scanning techniques and protocols. Prerequisite: Admission to

the program. (4 credits, 45 hours lecture, 45 hours lab)

### ***DMS 271 OB-GYN Imaging***

Presents the clinical applications within the sonographic specialties of obstetrics and gynecology. Includes topics of discussion on normal and abnormal sonographic patterns, related clinical symptoms and associated laboratory tests. Includes laboratory sessions on basic scanning techniques. Prerequisite: DMS 270. (5 credits, 75 hours lecture, 20 hours lab)

### ***DMS 240 Advanced Imaging***

Introduces the fundamentals of renal failure and transplantations, biopsies, neonatal neuro-sonography and rare and interesting ultrasonic case presentations. Prerequisite: DMS 271. (3 credits, 45 hours lecture)

### ***DMS 290 Ultrasound Seminar I***

Reviews material covered throughout the sonography program to prepare the student for the ultrasound registry examination. Prerequisite: DMS 271. (2 credits, 30 hours lecture)

### ***DMS 272 Introduction to Vascular Ultrasound***

Discusses the principles of vascular ultrasound, the related anatomy and more common pathologies detected as well as the physiology and hemodynamics detected and evaluated with ultrasound. Prerequisite: DMS 271. (3 credits, 45 hours lecture)

### ***DMS 291 Ultrasound Seminar II***

Reviews all material covered throughout the sonography program. Use of critical thinking while applying ultrasound knowledge to prepare for the ultrasound registry. Prerequisite: DMS 290. (2 credits, 30 hours lecture)