

# DIAGNOSTIC MEDICAL SONOGRAPHY, CERTIFICATE OF PROFICIENCY

## Forest Park

The Diagnostic Medical Sonography program provides a specialty in ultrasound technology for graduates of an associate degree or two-year hospital-based program in another allied health area. Students attend full-time and complete classroom work and clinical education in an affiliated ultrasound department. Students acquire skills in record keeping, reviewing and recording pertinent clinical patient history, performing the sonographic examination, providing for the comforts and needs of the patient during the examination, and recording the anatomic, pathologic and physiologic data for interpretation by the supervising physician.

Thoroughness, accuracy and empathy are traits needed by persons interested in this program. They also should be versatile and able to follow precise and detailed directions.

Graduates are eligible to take the certifying examination of the American Registry of Diagnostic Medical Sonographers in the specialty areas of abdomen and obstetrics-gynecology and adult echocardiography. Positions are available in hospital ultrasound departments, clinics, mobile services and private physicians' offices.

## Pre-admissions Entrance Requirements:

- Completion of all program prerequisites prior to submitting an application. Must earn a "C" or higher:
  - Anatomy and Physiology I and II with lab (two semester course sequence of at least 8 credit hours)
  - Physics or Physical Science Lecture
  - Precalculus Algebra or Introductory Statistics
  - Medical Terminology
  - English Composition
  - Oral Communications
- Cumulative GPA: 3.0
- Cumulative GPA for Math and Sciences: 3.0 (Physics or Physical Science Lecture, Anatomy and Physiology I and II, Precalculus Algebra or Introductory Statistics)
- Only one repeat of a course prerequisite is allowed over a five year period
- Complete 4 hours of job shadowing
- Complete 120 hours in a patient care setting (can be voluntary service within a hospital or nursing home)
- Math and science prerequisite courses must have been completed within five years of entering the program

**Cost of Attendance.** For more information on cost of attendance visit MoSCORES (<https://scorecard.mo.gov/Search/>).

**Program Career and Salary Information.** Pursuant to Missouri HB 1606 (2018), information regarding the number of credit hours, program length, employment rate, wage data, and graduates employed in careers related to their program of study at St. Louis Community College can be found at the following URL: <https://scorecard.mo.gov/scorecard/> (<https://www.google.com/url?q=https://scorecard.mo.gov/scorecard/>

&sa=D&ust=1555536894857000&usg=AFQjCNG1xf3E\_i2lO96zEytILO-s5xaJCQ). Search using School / Program "St. Louis Community College" and choose the degree or credential type of interest.

The following limitations to the data apply: Information provided is based on the most recent cohorts available. Typically, most recent cohorts for wage and completion data are six years prior to the current academic year. Time to complete a program of study varies depending on the number of credit hours students earn per semester.

**Interested in this program?** Start the enrollment process by visiting the Apply to STLCC (<https://www.stlcc.edu/admissions/apply-to-stlcc/>) page.

## At the completion of the program, students are expected to:

1. perform sonographic examinations of the abdomen, superficial structures, noncardiac chest, and the gravid and nongravid pelvis according to protocol guidelines established by national professional organizations.
2. identify the sonographic appearance of normal anatomic structures, including anatomic variants and normal Doppler patterns with vascular introduction.
3. identify and appropriately document the abnormal sonographic and Doppler patterns of disease processes, pathology, and pathophysiology of the abdomen, superficial structures, non-cardiac chest, and gravid and nongravid pelvis.
4. demonstrate proficiency in the performance of M-mode, two-dimensional, and Doppler (pulsed wave, continuous wave, color flow and power) echocardiographic studies.
5. identify the sonographic appearance of normal cardiac anatomy, including anatomic variants and normal Doppler patterns with vascular introduction.
6. identify and appropriately document the abnormal sonographic and Doppler patterns of cardiac disease processes, pathology, and pathophysiology.
7. discuss basic principles in ultrasound, vascular ultrasound, and ultrasound physics and instrumentation.
8. identify sectional anatomy, hemodynamics, pathophysiologic principles, and pattern recognition as it relates to vascular sonography.

## Program of Study

Code	Title	Credit Hours
<b>Core Curriculum</b>		
DMS 103	Ultrasound Physics and Instrumentation I	2
DMS 104	Ultrasound Physics and Instrumentation II	2
DMS 201	Ultrasound Physics and Instrumentation III	2
<b>Options</b>		
Select one of the following options:		37
Cardiac Sonography		
Medical Sonography		
<b>Total Credit Hours</b>		<b>43</b>

## Options

### Cardiac Sonography

Code	Title	Credit Hours
DMS 127	Introduction to Sonography	3
DMS 112	Cardiac Sonography I	3

DMS 113	Cardiac Sonography Scanning Techniques I	2
DMS 114	Cardiac Sonography Practicum I	2
DMS 115	Cardiac Sonography II	3
DMS 116	Cardiac Sonography Scanning Techniques II	1
DMS 117	Cardiac Sonography Clinical Applications	3
DMS 118	Cardiac Sonography Practicum II	3
DMS 207	Cardiac Sonography III	2
DMS 208	Cardiac Sonography Practicum III	4
DMS 209	Cardiac Sonography IV	4
DMS 126	Introduction to Vascular Sonography	3
DMS 128	Introduction to Vascular Sonography Scanning Techniques	1
DMS 211	Cardiac Sonography Practicum IV	3
<b>Total Credit Hours</b>		<b>37</b>

### Medical Sonography

Code	Title	Credit Hours
DMS 127	Introduction to Sonography	3
DMS 105	Medical Sonography I	3
DMS 106	Medical Sonography Scanning Techniques I	2
DMS 107	Medical Sonography Practicum I	2
DMS 108	Medical Sonography II	3
DMS 109	Medical Sonography Scanning Techniques II	1
DMS 110	Medical Sonography Clinical Applications	3
DMS 111	Medical Sonography Practicum II	3

DMS 202	Medical Sonography III	2
DMS 203	Medical Sonography Practicum III	4
DMS 204	Medical Sonography IV	4
DMS 126	Introduction to Vascular Sonography	3
DMS 128	Introduction to Vascular Sonography Scanning Techniques	1
DMS 206	Medical Sonography Practicum IV	3
<b>Total Credit Hours</b>		<b>37</b>

**PLEASE NOTE:** If you originally enrolled at STLCC prior to Fall 2021, you may need to view an archived catalog (<https://www.stlcc.edu/programs-academics/course-catalog/>) for your correct program requirements. Please speak with an advisor or the program coordinator for more information.

Pre-admissions Entrance Requirements:

Code	Title	Credit Hours
BIO 207	Anatomy and Physiology I (MOTR LIFS 150LAP)	4
BIO 208	Anatomy and Physiology II	4
	Physics or Physical Science Lecture	3-4
	Precalculus Algebra or Introductory Statistics	3-4
HIT 101	Medical Terminology and Language	4
ENG 101	College Composition I (MOTR ENGL 100)	3
COM 101	Oral Communication I (MOTR COMM 100)	3
<b>Total Credit Hours</b>		<b>24-26</b>

### Cardiac Sonography Option:

Code	Title	Hours	Prerequisites	Milestones/Notes
<b>First Year</b>				
<b>Fall</b>				
DMS 127	Introduction to Sonography	3	Current enrollment in the Cardiac learning concentration, Diagnostic Medical Sonography program or permission of the program director and Reading Proficiency	See program prerequisite list
DMS 103	Ultrasound Physics and Instrumentation I	2	Current enrollment in the Diagnostic Medical Sonography program or permission of the program director and Reading Proficiency	
DMS 112	Cardiac Sonography I	3	Current enrollment in the Cardiac learning concentration, Diagnostic Medical Sonography program or permission of the program director and Reading Proficiency	
DMS 113	Cardiac Sonography Scanning Techniques I	2	Current enrollment in the Cardiac learning concentration or permission of the program director and Reading Proficiency	
DMS 114	Cardiac Sonography Practicum I	2	Current enrollment in the Cardiac Sonography learning concentration, Diagnostic Medical Sonography Program or permission of the program director and Reading Proficiency	
	<b>Credit Hours</b>	<b>12</b>		

<b>Spring</b>				
DMS 104	Ultrasound Physics and Instrumentation II	2	DMS 103 or permission of the program director and Reading Proficiency	
DMS 115	Cardiac Sonography II	3	DMS 112 or permission of the program director and Reading Proficiency	
DMS 116	Cardiac Sonography Scanning Techniques II	1	DMS 113 or permission of the program director and Reading Proficiency	
DMS 117	Cardiac Sonography Clinical Applications	3	DMS 112 or permission of the program director and Reading Proficiency	
DMS 118	Cardiac Sonography Practicum II	3	DMS 114 or permission of the program director and Reading Proficiency	
	<b>Credit Hours</b>	<b>12</b>		
<b>Summer</b>				
DMS 207	Cardiac Sonography III	2	DMS 115 or permission of the program director and Reading Proficiency	
DMS 208	Cardiac Sonography Practicum III	4	DMS 118 or permission of the program director and Reading Proficiency	
	<b>Credit Hours</b>	<b>6</b>		
<b>Second Year</b>				
<b>Fall</b>				
DMS 201	Ultrasound Physics and Instrumentation III	2	DMS 104 or permission of the program director and Reading Proficiency	Apply for graduation
DMS 209	Cardiac Sonography IV	4	DMS 207 or permission of the program director and Reading Proficiency	
DMS 126	Introduction to Vascular Sonography	3	Current enrollment in the Cardiac learning concentration, Diagnostic Medical Sonography program or permission of the program director, and Reading Proficiency	
DMS 128	Introduction to Vascular Sonography Scanning Techniques	1	Current enrollment in the Cardiac learning concentration, Diagnostic Medical Sonography program or permission of the program director and Reading Proficiency	
DMS 211	Cardiac Sonography Practicum IV	3	DMS 208 or permission of the program director and Reading Proficiency	
	<b>Credit Hours</b>	<b>13</b>		
	<b>Total Credit Hours</b>	<b>43</b>		

**Medical Sonography Option:**

<b>Code</b>	<b>Title</b>	<b>Hours</b>	<b>Prerequisites</b>	<b>Milestones/Notes</b>
<b>First Year</b>				
<b>Fall</b>				
DMS 127	Introduction to Sonography	3	Current enrollment in the Cardiac learning concentration, Diagnostic Medical Sonography program or permission of the program director and Reading Proficiency	See program prerequisite list

DMS 103	Ultrasound Physics and Instrumentation I	2	Current enrollment in the Diagnostic Medical Sonography program or permission of the program director and Reading Proficiency	
DMS 105	Medical Sonography I	3	Current enrollment in the Medical Sonography learning concentration, Diagnostic Medical Sonography program or permission of the program director and Reading Proficiency	
DMS 106	Medical Sonography Scanning Techniques I	2	Current enrollment in the Medical Sonography learning concentration or permission of the program director and Reading Proficiency	
DMS 107	Medical Sonography Practicum I	2	Current enrollment in the Medical Diagnostic Sonography learning concentration or permission of the program director and Reading Proficiency	
	<b>Credit Hours</b>	<b>12</b>		
<b>Spring</b>				
DMS 104	Ultrasound Physics and Instrumentation II	2	DMS 103 or permission of the program director and Reading Proficiency	
DMS 108	Medical Sonography II	3	DMS 105 or permission of the program director and Reading Proficiency	
DMS 109	Medical Sonography Scanning Techniques II	1	DMS 106 or permission of the program director and Reading Proficiency	
DMS 110	Medical Sonography Clinical Applications	3	DMS 105 or permission of the program director and Reading Proficiency	
DMS 111	Medical Sonography Practicum II	3	DMS 107 or permission of the program director and Reading Proficiency	
	<b>Credit Hours</b>	<b>12</b>		
<b>Summer</b>				
DMS 202	Medical Sonography III	2	DMS 108 or permission of the program director and Reading Proficiency	
DMS 203	Medical Sonography Practicum III	4	DMS 111 or permission of the program director and Reading Proficiency	
	<b>Credit Hours</b>	<b>6</b>		
<b>Second Year</b>				
<b>Fall</b>				
DMS 201	Ultrasound Physics and Instrumentation III	2	DMS 104 or permission of the program director and Reading Proficiency	Apply for graduation
DMS 204	Medical Sonography IV	4	DMS 202 or permission of the program director and Reading Proficiency	
DMS 126	Introduction to Vascular Sonography	3	Current enrollment in the Cardiac learning concentration, Diagnostic Medical Sonography program or permission of the program director, and Reading Proficiency	
DMS 128	Introduction to Vascular Sonography Scanning Techniques	1	Current enrollment in the Cardiac learning concentration, Diagnostic Medical Sonography program or permission of the program director and Reading Proficiency	

*Diagnostic Medical Sonography, Certificate of Proficiency  
(10/21/21)*

DMS 206	Medical Sonography Practicum IV	3	DMS 203 or permission of the program director and Reading Proficiency	
	<b>Credit Hours</b>	<b>13</b>		
	<b>Total Credit Hours</b>	<b>43</b>		

\*Click on the hyperlinked course number to view additional information about the course.

\*\*Students completing a course that has been assigned a MOTR number may transfer that course to any public institution in Missouri. Those who complete CORE 42 requirements will have that verification on their transcript.

\*\*\* It is your responsibility to verify that the courses listed above will transfer to the four-year institution of your choice. Maximize your transfer credits/classes by meeting with an academic advisor.