

# DMSC - Diagnostic Medical Sonography-Cardiovascular

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## Courses

### DMSC 110 Advanced Electrocardiography 2 Credits. 1 Lecture Hour. 2 Lab Hours.

A course on electrocardiography principles and techniques. Topics include: patient preparation, 12-lead ECG setup and interpretation, common dysrhythmia recognition, myocardial infarct patterns, and chamber enlargement.

Prerequisites: Admitted to the DMS program through the selective enrollment process, and instructor consent  
Instructor Consent Required

### DMSC 120 Cardiovascular Sonography 3 Credits. 3 Lecture Hours. 0 Lab Hour.

A course on cardiovascular scanning techniques and the operation of ultrasound systems. Topics include: professional standards and behaviors, basic ultrasound machine controls, scan planes, demonstration of appropriate imaging, and use of descriptive terminology associated with cardiac and vascular studies.

Prerequisites: Instructor consent

Corequisites: DMSC 121: Cardiovascular Sonography Scan Lab 1  
Instructor Consent Required

### DMSC 121 Cardiovascular Sonography Scan Lab 1 2 Credits. 0 Lecture Hour. 6 Lab Hours.

A course on developing skills in the scanning techniques and protocols related to cardiac and vascular structures and physiology.

Prerequisites: Instructor consent

Corequisites: DMSC 120: Cardiovascular Sonography DMS 111 : Sonographic Principles and Instrumentation 1 DMSC 110 : Advanced Electrocardiography  
Instructor Consent Required

### DMSC 122 Cardiovascular Sonography Scan Lab 2 2 Credits. 0 Lecture Hour. 6 Lab Hours.

A continuation of DMSC 121, emphasizing increased experience using scanning techniques and protocols related to cardiac and vascular structures and physiology.

Prerequisites: DMSC 121 (minimum grade C)

Corequisites: DMSC 131 : Vascular Sonography 1 DMSC 141 : Echocardiography 1 DMS 112 : Sonographic Principles and Instrumentation 2

### DMSC 131 Vascular Sonography 1 3 Credits. 3 Lecture Hours. 0 Lab Hour.

A course on theory and principles of vascular sonography. Topics include: vascular anatomy and physiology; etiology of pathologies; imaging techniques and protocols; and detecting and differentiating abnormalities, pathologies, and other deviations from normal development.

Prerequisites: DMSC 120 and DMSC 121 (minimum grade C for both)

Corequisites: DMSC 141 : Echocardiography 1 DMSC 122 : Cardiovascular Sonography Scan Lab 2 DMS 112 : Sonographic Principles and Instrumentation 2

### DMSC 141 Echocardiography 1 3 Credits. 3 Lecture Hours. 0 Lab Hour.

A course on theory and principles of adult cardiac sonography. Topics include: cardiac anatomy and physiology; etiology of pathologies; imaging techniques and protocols; and detecting and differentiating abnormalities, pathologies, and other deviations from normal development.

Prerequisites: DMSC 120 and DMSC 121 (minimum grade C for both)

Corequisites: DMSC 131 : Vascular Sonography 1 DMSC 122 : Cardiovascular Sonography Scan Lab 2 DMS 112 : Sonographic Principles and Instrumentation 2

### DMSC 223 Cardiovascular Sonography Scan Lab 3 1 Credit. 0 Lecture Hour. 3 Lab Hours.

A continuation of DMSC 122, emphasizing increased skills and experience using scanning techniques and protocols related to cardiac and vascular structures and physiology.

Prerequisites: DMSC 122 (minimum grade C)

### DMSC 224 Cardiovascular Sonography Scan Lab 4 2 Credits. 0 Lecture Hour. 4 Lab Hours.

Students demonstrate required sonography competencies and proficiencies prior to completion of the program.

Prerequisites: DMSC 223

### DMSC 232 Vascular Sonography 2 2 Credits. 2 Lecture Hours. 0 Lab Hour.

A continuation of DMSC 131, with additional information on theory and principles of vascular sonography.

Prerequisites: DMSC 131 (minimum grade C)

### DMSC 242 Echocardiography 2 2 Credits. 2 Lecture Hours. 0 Lab Hour.

A continuation of DMSC 141, with additional information on theory and principles of adult cardiac sonography.

Prerequisites: DMSC 141 (minimum grade C)

### DMSC 245 Cardiovascular Specialties 2 Credits. 1 Lecture Hour. 2 Lab Hours.

A course on advanced procedures and emerging technologies in the field of cardiovascular ultrasound.

Prerequisites: DMSC 232, DMSC 242 (minimum grade C for both)

### DMSC 250 Cardiovascular Imaging Seminar 2 Credits. 1 Lecture Hour. 2 Lab Hours.

A course on integration of concepts and clinical applications in cardiovascular sonography. Topics include: current trends and advanced cardiovascular procedures and technologies, transition to an entry-level cardiovascular sonography position, mock registry examinations, and preparation for national credentialing examinations. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: DMSC 224, DMSC 232, and DMSC 242 (minimum grade C for all)

### DMSC 281 Cardiovascular Internship 1 1 Credit. 0 Lecture Hour. 24 Lab Hours.

Students participate in supervised practice of cardiac and vascular diagnostic ultrasound procedures in hospitals, clinics, and private physician offices. Students are evaluated on professional behavior and performance, and clinical competency.

Prerequisites: DMSC 122 and DMSC 131 and DMSC 141 (minimum grade C for all)

Corequisites: DMSC 223 : Cardiovascular Sonography Scan Lab 3

**DMSC 282 Cardiovascular Internship 2**

**1 Credit. 0 Lecture Hour. 24 Lab Hours.**

A continuation of DMSC 281. Students participate in supervised practice of cardiac and vascular diagnostic ultrasound procedures in hospitals, clinics, and private physician offices.

Prerequisites: DMSC 281

Corequisites: DMSC 232 : Vascular Sonography 2 DMSC 242 :  
Echocardiography 2 DMSC 224 : Cardiovascular Sonography Scan  
Lab 4

**DMSC 283 Cardiovascular Internship 3**

**2 Credits. 0 Lecture Hour. 32 Lab Hours.**

A continuation of DMSC 282. Students participate in supervised practice of cardiac and vascular diagnostic ultrasound procedures in hospitals, clinics, and private physician offices.

Prerequisites: DMSC 282

Corequisites: DMSC 250 : Cardiovascular Imaging Seminar