

# SUBJECTS AND COURSES

## COURSE DESCRIPTIONS - DIAG MEDICAL SONOGRAPHY (DMS)

### DMS 202 Foundations of Sonography

This course provides the student with elements of the history and development of the use of sonography in medical imaging. Students also are provided concepts in patient care and medical ethics and law to include cultural diversity. Emphasis in theory and lab is placed on patient assessment and considerations of physical and psychological conditions in both routine and emergency situations. Upon completion, students will demonstrate knowledge of the history of sonographic imaging, medical ethic dilemmas that may arise, as well as demonstrate/explain patient care procedures appropriate to setting and situation. This is a CORE course. **5 Credit Hours**

### DMS 204 Sectional Anatomy

This course is a study in gross and sectional anatomy and physiology of the human body and the correlation of that anatomy to sonographic, computed tomography and magnetic resonance images. Upon completion students will be able to identify normal sonographic anatomy. **2 Credit Hours**

### DMS 216 Sonographic Principles & Instr

This course will provide the student with knowledge of the principles of sound and imaging instrumentation as applied to sonography. The physical nature of sound waves and how those waves interact with mediums and how they can be successfully utilized in diagnostic imaging will be studied. Upon completion the student will be able to produce sonographic images. This is a CORE course. **3 Credit Hours**

### DMS 217 Sonographic Principl/Inst II

PREREQUISITE: As required by program. This lab allows students to perform quality assurance tests and surveys. Students will also investigate statistical applications utilized in medical research. Upon completion the student will be able to develop a quality assurance program. **3 Credit Hours**

### DMS 229 Sonography Preceptorship I

This course provides the sonography student with the opportunity to practice patient care skills and use beginning sonographic skills in a clinical environment. At course completion, the student should be able to provide basic patient care needs for the individual scheduled for a sonogram and create sonographic images pertinent to the current level of didactic training in general sonography specialties. Competencies will be required. This is a CORE course. **10 Credit Hours**

### DMS 230 Sonography Preceptorship II

PREREQUISITE: As required by program. This course provides the student with the opportunity to develop additional sonographic skills in the clinical setting. The student will assist with and perform sonographic exams pertinent to the level of didactic training in general sonography specialties. Competencies will be required. This is a CORE course. **NaN Credit Hours**

### DMS 231 Sonography Preceptorship III

This course provides a continuum in the development of sonographic skills in all general sonographic specialties while in the clinical setting. Students should be able to perform more exams with less assistance from the supervising sonographer. Competencies will be required. This is a CORE course. **4 Credit Hours**

### DMS 232 Sonography Preceptorship IV

This course will provide an in-depth practice of all general sonographic skills in the clinical setting. Upon completion the student will perform general specialty sonograms with little to no assistance from the supervising sonographer. Competencies will be required. This is a CORE course. **0 Credit Hours**

### DMS 233 Sonography Lab I

This course is designed to allow students the opportunity to improve their application of knowledge gained in other courses. Content will vary depending on student needs as determined by the instructor. Content may include General or Cardiovascular sonographic concepts. **1 Credit Hour**

### DMS 234 Sonography Lab II

PREREQUISITE: As required by program. This course is designed to allow students the opportunity to improve their application of knowledge gained in other courses. Content will vary depending on student needs as determined by the instructor. Content may include General or Cardiovascular sonographic concepts. **1 Credit Hour**

### DMS 235 Sonography Lab III

PREREQUISITE: As required by program. This course is designed to allow students the opportunity to improve their application of knowledge gained in other courses. Content will vary depending on student needs as determined by the instructor. Content may include General or Cardiovascular sonographic concepts. **1 Credit Hour**

### DMS 240 Sonography Princ/Instr Seminar

PREREQUISITE: As required by program. Will be optional upon successful passage of ARDMS SPI registry exam. This course provides a review for SONOGRAPHY PRINCIPLES AND INSTRUMENTATION Exam. Topics include sonographic principles and instrumentation. Mock registries must be passed with a grade of 75% or better to complete this course. **2 Credit Hours**

### DMS 242 Adult Echocardiography Seminar

This course provides a review for the Registry Exam in Adult Echocardiography. Topics include cardiac anatomy and physiology, two-dimensional color and spectral Doppler modalities, as well as advanced techniques for identifying and evaluating cardiac normal and abnormal function. Mock registries must be passed with a grade of 75% or higher to complete this course. **NaN Credit Hours**

### DMS 245 Sonography Case Presentation

This course allows students to share interesting sonographic cases obtained during clinical rotations. Students are required to present cases with sonographic images, reports, patient history and symptoms and correlating reports from other exams/tests performed. The cases become the property of the program for use as future reference material. By the end of the term, students will have developed proficiency and expertise in case presentation. **1 Credit Hour**

### DMS 251 Intro to Cardiovascular Sonogr

PREREQUISITE: As required by program. Cardiac testing including the techniques and interpretation of patient physical assessment. This course will cover electrocardiographic procedures such as ECG, stress testing, and holter monitoring. (It will also include patient assessment such as pulse, blood pressure, clinical monitoring, history and physical exam monitoring for those students in the ATC program.) Emphasis will be placed on performing and interpreting these procedures, arrhythmia recognition, and will also include pharmacology concepts and treatment methods. **NaN Credit Hours**

### DMS 271 Echocardiographic Technology

This course will familiarize the student with sonographic anatomy of the cardiovascular system of the human body. Techniques and protocols for performing a diagnostic study of the cardiovascular system. The lab will enable the echo student to practice echocardiographic scanning skills on volunteers in the campus lab. Student will be required to provide volunteers for labs. At completion student will be able to perform echocardiograms. **3 Credit Hours**

**DMS 273 Pathology of the Cardiovascula**

This course will educate the student in common pathologies and anomalies of the cardiovascular system. Patient history, lab values and symptomology will be correlated with abnormalities seen. At course completion the student will be able to identify common cardiac abnormalities on echocardiograms. **3 Credit Hours**

**DMS 274 Echo Clinical**

This course will allow the student to practice cardiac scanning skills in the clinical setting. Students will demonstrate competency in cardiovascular studies, including transthoracic, transesophageal, and intraluminal echocardiography. **15 Credit Hours**

**DMS 275 Adv Echocardiographic Modaliti**

**PREREQUISITE:** As required by program. This course offers a detailed study of the anatomy, physiology, and structural relationships of the human heart and vascular system. Focus is on cardiac and vascular anatomy, hemodynamics and electrophysiology, innervations of the heart, and embryology, as well as cardiac and vascular pathophysiology..  
**CV CORE 3 Credit Hours**