

DIAGNOSTIC MEDICAL SONOGRAPHY (DMS)

DMS 100 Orientation to the Sonography Profession (1 CR.)

Presents brief history of sonography profession, code of ethics, scope of practice, and technical standards. Lecture 1 hour per week.

DMS 150 Echocardiography I (4 CR.)

Presents the fundamentals of adult echocardiography; including basic ultrasound scanning techniques of the heart. Students focus on anatomy, pathophysiology, and echocardiographic pattern recognition with real-time 2-D, 3-D and 4-D imaging, Doppler, and M-mode echocardiography. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

Prerequisite(s) Satisfactory completion of all previous sonography courses with a grade of "C" or better

DMS 160 Vascular Sonography I (4 CR.)

Presents the fundamentals of vascular technology including basic ultrasound scanning techniques of the peripheral vascular and abdominal vascular systems. Students focus on anatomy, physiology, pathology, and vascular recognition with real-time 2-D and Doppler imaging. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

Prerequisite(s) Satisfactory completion of all previous sonography courses with a grade of "C" or better

DMS 190 Coordinated Internship (2 CR.)

Develops the students' ultrasonic skills in a diagnostic environment; may include on-campus labs, private office settings, as well as hospital rotations. May include experiences in abdominal, pelvic, obstetrical, and small parts scanning, as well as echocardiography and vascular sonography. Laboratory 10 hours per week.

DMS 196 On-Site Training in: (3 CR.)

Develops the students' ultrasonic skills in a diagnostic environment; may include on-campus labs, private office settings, as well as hospital rotations. May include experiences in abdominal, pelvic, obstetrical, and small parts scanning, as well as echocardiography and vascular sonography. Laboratory 15 hours per week.

DMS 204 Introduction to General Sonography (3 CR.)

Discusses the principles of abdominal, pelvic, and small parts sonography through the exploration of related anatomy, sonographic appearances, and common pathologies. Lecture 2 hours per week. Lab 2 hours per week. Lecture 2 hours. Lecture 2 hours. Total 4 hours per week.

Prerequisite(s) The student must satisfactorily complete all previous sonography courses with a grade of "C" or better

DMS 206 Introduction to Sonography (3 CR.)

Introduces the diagnostic foundations of diagnostic medical sonography, including terminology, scan plane orientations, anatomical relationships, departmental administrative operations, hospital organization and basic patient care principles. Lecture 3 hours per week.

DMS 207 Sectional Anatomy (2 CR.)

Teaches normal sectional anatomy in the transverse, longitudinal and coronal planes, with correlated sonographic images. Emphasis will be placed on abdominopelvic organs and vasculature. Lecture 2 hours per week.

DMS 208 Ultrasound Physics and Instrumentation I (2 CR.)

Discusses and solves mathematical problems associated with human tissue, basic instrumentation and scanning technology. Focuses on the use of pulse-echo principles as applied to diagnostic sonography. Presents the physics of sound-tissue interactions and explores ultrasound instrumentation controls and functions. Lecture 2 hours per week.

DMS 209 Ultrasound Physics and Instrumentation II (2 CR.)

Focuses on the areas of ultrasonic, instrumentation, image artifacts, biologic effects, quality control as well as Doppler principles and applications and basic types of equipment through lecture and laboratory exercises. Lecture 2 hours per week.

Prerequisite(s) DMS 208

DMS 211 Abdominal Sonography (4 CR.)

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. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

DMS 212 Obstetrical and Gynecological Sonography (3 CR.)

Corequisite is DMS 211. 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. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

DMS 217 Sectional Anatomy Laboratory (1 CR.)

Provides experience with sectional anatomy. Laboratory 2 hours per week.

DMS 218 Ultrasound Physics and Instrumentation Laboratory I (1 CR.)

Presents practice with basic instrumentation, mathematical calculations, basic properties of acoustical physics. Laboratory 2 hours per week
Corequisite(s) DMS 208

DMS 219 Ultrasound Physics and Instrumentation Laboratory II (1 CR.)

Presents advanced practice with instrumentation, hemodynamics, Doppler instrumentation and pulse echo technology. Laboratory 2 hours per week.

Prerequisite(s) DMS 208

Corequisite(s) DMS 209

DMS 222 Sonography Registry Review (2 CR.)

Reviews material covered throughout the Sonography program to prepare the student for the ultrasound registry examination. Lecture 2 hours per week.

DMS 223 Introduction to Vascular Ultrasound (3 CR.)

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. Provides hands-on practice through vascular scanning in a laboratory setting. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

DMS 231 Clinical Education I (3 CR.)

Develops the students' ultrasonic skills in a diagnostic environment; may include on-campus labs, private office settings, as well as hospital rotations. May include experiences in abdominal, pelvic, obstetrical, and small parts scanning, as well as echocardiography and vascular sonography. Laboratory 15 hours per week.

DMS 232 Clinical Education II (4 CR.)

Develops the students' ultrasonic skills in a diagnostic environment; may include on-campus labs, private office settings, as well as hospital rotations. May include experiences in abdominal, pelvic, obstetrical, and small parts scanning, as well as echocardiography and vascular sonography. Laboratory 20 hours per week.

Prerequisite(s) DMS 231

DMS 241 Advanced Abdominal Sonography (3 CR.)

Presents advanced study of abdominal sonography with concentration on case study reviews of normal anatomy, physiology, and pathophysiology, including abnormal etiology and diagnostic techniques. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

Prerequisite(s) DMS 211

DMS 242 Advanced Obstetrical and Gynecological Sonography (3 CR.)

Prerequisite is DMS 212. Presents advanced study of obstetrics/gynecology with concentration on case study reviews of normal anatomy, physiology, and fetal development, including abnormal etiology and diagnostic techniques. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

DMS 250 Echocardiography II (4 CR.)

Presents advanced study of echocardiography with concentration on case study reviews of normal anatomy, physiology, and pathologic conditions of the adult heart. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

Prerequisite(s) Satisfactory completion of all previous sonography courses with a grade of "C" or better

DMS 255 Echocardiography Registry Review (2 CR.)

Presents students with registry examination preparation, test-taking strategies and skills that will facilitate the graduates' entry into the career of sonography. Lecture 2 hours per week.

Prerequisite(s) Satisfactory completion of all previous sonography courses with a grade of "C" or better

DMS 256 Echocardiography Case Study Review (1 CR.)

Presents weekly echocardiography case studies by faculty and students for interpretation and pattern recognition. Lecture 1 hour. Total 1 hour per week.

Prerequisite(s) Satisfactory completion of all previous sonography courses with a grade of "C" or better

DMS 260 Vascular Sonography II (4 CR.)

Presents the fundamentals of vascular technology including basic ultrasound scanning techniques of the cerebrovascular system. Students focus on anatomy, physiology, pathology, and vascular recognition with real-time 2-D and Doppler imaging. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

Prerequisite(s) Satisfactory completion of all previous sonography courses with a grade of "C" or better

DMS 265 Vascular Case Study Review (1 CR.)

Presents weekly vascular case studies by faculty and students for interpretation and pattern recognition. Lecture 1 hour per week.

Prerequisite(s) Satisfactory completion of all previous sonography courses with a grade of "C" or better

DMS 266 Vascular Ultrasound Registry Review (2 CR.)

Presents students with registry examination preparation, test-taking strategies and skills that will facilitate the graduates' entry into the career of sonography. Lecture 2 hours per week.

Prerequisite(s) Satisfactory completion of all previous sonography courses with a grade of "C" or better