

DIAGNOSTIC MEDICAL SONOGRAPHY (DMS)

DMS 160 C Introduction to Sonography 2 Units

Prerequisite(s): RADT 142 C or RADT 153 C or HS 145 C or HS 147 C or BIOL 210 C or ENGL 100 C or ENGL 101 C or ESL 110 C and CIS 111 C, with a grade of C or better.

Term hours 27 lecture and 27 laboratory. This course is designed for the student who has been accepted to the diagnostic medical sonography program. Basic sonography theory is taught with emphasis on sonographic terminology and equipment manipulation. Anatomy identification, scanning planes, transducer orientation, ergonomics, and scanning protocols are included. \$14 materials fee payable at registration. (CSU)

DMS 163 C Scanning Lab I 1 Unit

Corequisite(s): DMS 170 C, DMS 172 C and DMS 175 C.

Pre-requisites: Grade C or better in DMS 160 C. Term hours: 72 laboratory. This hands-on sonographic scanning lab focuses on the knowledge, skills, and techniques for acquisition of appropriate sonographic protocols and image optimization of the abdominal vasculature, liver, biliary system, pancreas, renal system, spleen, and retroperitoneum. Color and spectral Doppler techniques will also be applied to the anatomy. (CSU)

DMS 165 C Ethical and Legal Issues 1.5 Units

Formerly: HS 165 C Term hours: 27 lecture. This course will focus on making ethical choices in health care. An introduction to legal terminology, concepts, and principles will be presented. Topics include misconduct, malpractice, legal and professional standards and the scope of practice. The importance of proper documentation and informed consent is emphasized. The student will examine a variety of ethical issues and dilemmas found in clinical practice. The rights and responsibilities of patients and health care professionals will be examined. (CSU)

DMS 170 C Sonography Physics 3.5 Units

Prerequisite(s): A minimum grade of C in DMS 160 C and RADT 142 C or a minimum grade of C in PHYS 130 C.

Corequisite(s): DMS 175 C and DMS 172 C.

Term hours: 63 lecture. This course will provide lecture and demonstrations covering the areas of acoustical physics, propagation principles, transducers, machine instrumentation, hemodynamics, harmonics, doppler principles, biological effects, artifacts, and quality control. (CSU)

DMS 172 C Sonography Externship 4 Units

Prerequisite(s): Acceptance to the DMS Program and a minimum grade of C in DMS 160 C, RADT 153 C, HS 147 C.

Co-Requisites DMS 170 C and 175 C Term hours: 256 laboratory TBA. This course is designed to acclimate the sonography student to the hospital setting, sonography department, and the sonography profession. The student is expected to complete a minimum of 256 hours of clinical training at an affiliated hospital. Topics include hospital orientation, HIPAA regulations, SDMS code of ethics, sonography ergonomics, and basic scanning techniques and protocols. (CSU)

DMS 175 C Abdomen Sonography 4 Units

Prerequisite(s): Minimum grades of C in DMS 160 C and RADT 153 C and HS 147 C.

Corequisite(s): DMS 170 C and DMS 172 C.

Term hours: 63 lecture and 27 laboratory. This course will provide a study of the clinical applications of abdomen sonography. It will include abdominal vasculature; liver; gallbladder and biliary system; pancreas; spleen; and kidneys. Interpretation of clinical laboratory tests, related clinical signs and symptoms, and normal and abnormal sonographic patterns will be discussed. This course includes a lab section on basic scanning techniques and protocol. (CSU).

DMS 176 C Pathology and Small Parts 3 Units

Prerequisite(s): DMS 170 C, DMS 172 C, DMS 175 C, DMS 165 C and RADT 262 C, with a grade of C or better.

Corequisite(s): DMS 186 C and DMS 207 C.

Term hours: 54 lecture. This course will discuss the manifestations of abdominal pathology and disease conditions and their relevance to sonographic procedures including hemodynamic changes. The student will describe abdomen scanning techniques and procedures appropriate for the disease process. Normal anatomy, scanning technique, and pathology of small parts is included as well as neonatal imaging. The course will support the student in the clinical phase of sonographic training. Sonographic technique and actual pathologic cases will be discussed. (CSU)

DMS 183 C Scanning Lab II 1 Unit

Pre-requisites: DMS 170 C, DMS 172 C and DMS 175 C with a C or better. Co-requisites : DMS 176 C, DMS 186 C, and DMS 207 C. Term hours: 72 laboratory. This hands-on sonographic scanning lab focuses on the knowledge, skills, and techniques for acquisition of appropriate sonographic protocols and image optimization of the thyroid, lymph nodes, gastrointestinal track, ovaries, uterus, and bladder along with obstetric simulation. Color and spectral Doppler techniques will also be applied to the anatomy. (CSU)

DMS 186 C Obstetric and Gynecology Sonography 4 Units

Prerequisite(s): DMS 170 C, DMS 172 C and DMS 175 C with a grade of C or better.

Corequisite: Completion of or concurrent enrollment in DMS 176 C and DMS 207 C with a grade of C or better. Term hours: 72 lecture. This obstetric/gynecology sonography course is a study of the pregnant and non-pregnant female reproductive system. This includes an assessment of fetal gestational age, fetal anatomy and pathology, as well as, associated maternal conditions. Gynecological sonography includes normal female anatomy along with pathological processes. Topics of discussion include related clinical symptoms, sonographic appearances, scanning techniques and protocols, and laboratory tests. This course includes a demonstration section on basic scanning techniques and protocol. (CSU)

DMS 188 C Venous Doppler Ultrasound 1.5 Units

Prerequisite(s): DMS 176 C or DMS 186 C and DMS 207 C, with a grade of C or better.

Corequisite(s): DMS 217 C.

Term hours: 27 lecture. This course includes vascular scanning techniques related to upper and lower extremity venous sonographic exams. (CSU)

DMS 195 C Carotid and Arterial Sonograph 4 Units

Prerequisite(s): DMS 188 C and DMS 217 C, with a grade of C or better.

Corequisite(s): DMS 227 C with a grade of C or better.

Term hours: 54 lecture and 27 laboratory. This course includes Doppler criteria related to carotid and arterial sonographic exams. (CSU)

DMS 207 C Clinical Education I 8 Units

Prerequisite(s): Satisfactory completion of the first (Fall) semester of the Diagnostic Medical Sonography Program and DMS 172 C with a grade of C or better.

Term hours: 480 laboratory TBA. This course offers a minimum of 480 hours of clinical experience at an affiliated hospital. This course will provide basic instruction and scanning experiences in abdomen sonography. The student will be able to demonstrate the ability to perform sonographic examinations of the abdomen according to the protocols established by the program and clinical education center utilizing sonography equipment. (CSU)

DMS 210 C Advanced Sonography Topics 3 Units

Prerequisite(s): DMS 195 C and DMS 227 C with grades of C or better.

Corequisite(s): DMS 237 C.

Term hours: 54 lecture. This course will cover advanced topics in sonography including: pediatrics, interventional, musculoskeletal, and ergonomics. The student will achieve an in-depth comprehension and an increased level of understanding of these advanced sonographic techniques. Additionally, review of abdomen, small parts, vascular, obstetrics and gynecology will be included to help prepare the student for the American Registry of Diagnostic Medical Sonography exams. (CSU)

DMS 217 C Clinical Education II 7 Units

Prerequisite(s): DMS 176 C, DMS 186 C, and DMS 207 C with a grade of C or better.

Corequisite(s): DMS 188 C.

Term hours: 384 laboratory. This course requires a minimum of 384 hours of clinical experience at an affiliated hospital/medical center. This course will provide basic instruction and scanning experiences in breast, thyroid, scrotum, and doppler sonography. The student will be able to demonstrate the ability to perform sonographic examinations of small parts according to the protocols established by the program and clinical education center utilizing sonography equipment. (CSU)

DMS 227 C Clinical Training III 11 Units

Prerequisite(s): DMS 188 C and DMS 217 C with a grade of C or better.

Corequisite(s): DMS 195 C.

Term hours: 616 laboratory. This course requires a minimum of 616 hours of clinical training at an affiliated hospital/medical center. This course will provide the basic instruction and scanning experiences in obstetrics and gynecology sonography. The student will be able to demonstrate the ability to perform sonographic examinations of the gravid and non gravid pelvis according to the protocols established by the program and clinical education center utilizing sonography equipment with both transabdominal and endocavity transducers. (CSU)

DMS 237 C Clinical Education IV 11 Units

Prerequisite(s): DMS 227 C and DMS 195 C, with a grade of C or better.

Corequisite(s): DMS 210 C with a grade of C or better.

Term hours: 612 laboratory. This course requires a minimum of 612 hours of clinical training at an affiliated hospital/medical center. This course will provide basic instruction and scanning experiences in vascular sonography. (CSU)