

# DIAGNOSTIC MEDICAL SONOGRAPHY (DMS)

**DMS A110** 1.5 Units (18 lecture hours; 27 lab hours)

## Introduction to Sonography

**Prerequisite(s):** BIOL A221 and ALH A010 and ALH A111.

**Grading Mode:** Standard Letter

**Transfer Credit:** CSU.

This course is a required prerequisite for all students entering the Diagnostic Medical Sonography (DMS) Program. Basic sonographic theory is taught with an emphasis on instrumentation, patient exam presets and scan planes. Basic cross-sectional and sonographic anatomy, as well as scan protocols are taught.

**DMS A123** 4 Units (54 lecture hours; 54 lab hours)

## Sectional Anatomy for Medical Imaging

**Prerequisite(s):** BIOL A221; or BIOL A220 and BIOL A225.

**Grading Mode:** Standard Letter

**Transfer Credit:** CSU.

This is a study of specific areas of the human body in serial sections. Designed for diagnostic medical sonography and radiologic imaging technology. Emphasis is on structures observable on diagnostic medical sonography, computerized tomography and related imaging studies.

**DMS A126** 4 Units (72 lecture hours)

## OB/GYN Sonography

**Prerequisite(s):** DMS A123 and DMS A150.

**Grading Mode:** Standard Letter

**Transfer Credit:** CSU.

A cross-sectional anatomical and sonographic study of the female reproductive system including the nongravid pelvis as well as the gravid pelvis; includes specific study of embryology, fetal biometric data, normal and abnormal fetal anatomy, placenta, amniotic fluid, umbilical cord, menstrual cycle and pathology of the female nongravid pelvis. Topics of discussion will include appropriate laboratory tests, ultrasound scan protocols of the American Institute of Ultrasound in Medicine (AIUM) and other imaging modalities utilized in OB/GYN.

**DMS A150** 3.5 Units (54 lecture hours; 36 lab hours)

## Sonographic Physics and Instrumentation for DMS

**Prerequisite(s):** RADT A100.

**Grading Mode:** Standard Letter

**Transfer Credit:** CSU.

This is the study of physical principles and instrumentation of diagnostic medical sonography. It includes equipment design, instrumentation and application.

**DMS A155** 2.5 Units (36 lecture hours; 36 lab hours)

## Introduction to Vascular Ultrasound

**Prerequisite(s):** DMS A150.

**Grading Mode:** Standard Letter

**Transfer Credit:** CSU.

This course is an introduction to vascular ultrasound including Doppler physical principles and instrumentation. The venous system of the upper and lower extremities is emphasized this semester.

**DMS A161** 3 Units (54 lecture hours)

## Pathophysiology

**Prerequisite(s):** DMS A123.

**Co-requisite(s):** DMS A165.

**Grading Mode:** Standard Letter

**Transfer Credit:** CSU.

Specific study of pathophysiological mechanisms related to diagnostic medical sonography.

**DMS A165** 3 Units (36 lecture hours; 54 lab hours)

## Introduction to Scanning Practice

**Prerequisite(s):** DMS A123 and DMS A150.

**Grading Mode:** Standard Letter

**Transfer Credit:** CSU.

Introduction to sonographic scanning protocol as applied to clinical practice. Course includes environment of ultrasound department, emphasis on professionalism, student behavior, medico-legal aspects, and humanistic approach to patients.

**DMS A166** 2 Units (128 lab hours)

## DMS Clinical Experience 1

**Prerequisite(s):** ALH A115.

**Co-requisite(s):** DMS A165.

**Grading Mode:** Pass/No Pass

**Transfer Credit:** CSU.

Introduction to the clinical environment and exposure to departmental organization, patient flow, PACS procedures, observation of techniques, policies and procedures of clinical cases. Offered on a pass-no pass basis only.

**DMS A167** 5 Units (320 lab hours)

## DMS Clinical Experience 2

**Prerequisite(s):** DMS A166.

**Grading Mode:** Pass/No Pass

**Transfer Credit:** CSU.

Continuation of clinical experience. Exposure to departmental organization, patient flow, PACs, observation of techniques employed, policies and procedures of clinical cases, beginning hands on experience, and equipment set up. Offered on a pass-no pass basis only.

**DMS A255** 2.5 Units (36 lecture hours; 36 lab hours)  
**Advanced Vascular Ultrasound**  
**Prerequisite(s):** DMS A155.

**Grading Mode:** Standard Letter  
**Transfer Credit:** CSU.

This is an advanced vascular course with laboratory exercises. It includes physiological arterial testing of the lower and upper extremities with pathological correlation.

**DMS A271** 7 Units (512 lab hours)  
**DMS Clinical Experience 3**  
**Prerequisite(s):** DMS A167.

**Grading Mode:** Pass/No Pass  
**Transfer Credit:** CSU.

Clinical experience in ultrasound. Equipment handling and patient management. Departmental operation and scope. Offered on a pass-no pass basis only.

**DMS A274** 3 Units (54 lecture hours)  
**Abdominal Sonography**  
**Prerequisite(s):** DMS A165.

**Co-requisite(s):** DMS A271.

**Grading Mode:** Standard Letter  
**Transfer Credit:** CSU.

Interpretation of normal and abnormal sonographic anatomy, comparing disease processes and identification of structures in sonographic images of the abdomen and superficial structures.

**DMS A275** 3 Units (54 lecture hours)  
**Sonographic Review**  
**Prerequisite(s):** DMS A274.

**Grading Mode:** Standard Letter  
**Transfer Credit:** CSU.

Review of advanced scanning techniques and other ultrasound topics including physics and instrumentation. Interpretation of normal and abnormal sonography.

**DMS A276** 2 Units (160 lab hours)  
**DMS Clinical Experience 4**  
**Co-requisite(s):** DMS A271.

**Grading Mode:** Pass/No Pass  
**Transfer Credit:** CSU.

Intermediate clinical experience. Studies in the abdominal, obstetrical, pelvic, scrotal, thyroid and vascular anatomical areas. Variety of real-time equipment, anatomical pathology recognition. Offered on a pass-no pass basis only.

**DMS A281** 9 Units (16 lecture hours; 560 lab hours)  
**DMS Clinical Experience 5**  
**Prerequisite(s):** DMS A276.

**Grading Mode:** Pass/No Pass  
**Transfer Credit:** CSU.

Advanced clinical experience in the ultrasound department practicing in a variety of Sonographic studies with emphasis on the abdomen and pelvis. Advanced recognition of pathology and scan interpretation. Offered on a pass-no pass basis only.