

University of Arkansas - Fort Smith
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General Syllabus

DMSO 31103 Cross-Sectional Anatomy

Credit Hours: 3 Lecture Hours: 3 Laboratory Hours: 0

Prerequisite: Admission into the diagnostic medical sonography degree program

Corequisites: DMSO 31003 Acoustical Physics and Instrumentation I and DMSO 31002 Clinical Laboratory Practice

Effective Catalog: 2018-2019

I. Course Information

A. Catalog Description

The study of human anatomy in the transverse, longitudinal, and coronal planes with application to sonographic images, CT and MRI

B. Additional Information - None

II. Student Learning Outcomes

A. Subject Matter

Upon successful completion of this course, the student will be able to:

1. Diagram the transverse, longitudinal, and coronal planes of the body.
2. Analyze the anatomical structures found in the longitudinal plane of the neck on the CT, MRI, and ultrasound images.
3. Analyze the anatomical structures found in the transverse plane of the abdomen on the CT, MRI, angiography, and ultrasound images.
4. Analyze the anatomical structures found in the longitudinal plane of the abdomen on the CT, MRI, angiography, and ultrasound images.
5. Analyze the anatomical structures found in the coronal plane of the abdomen on CT, MRI, angiography, and ultrasound images.
6. Evaluate the signs and symptoms of child abuse
7. Assess the legal, moral and ethical responsibilities a radiographer has in the recognition and reporting of child abuse.
8. Validate the appropriate methods for reporting child abuse.

9. Evaluate the anatomical structures found in the longitudinal plane of the female pelvis on CT, MRI, and ultrasound images.
10. Evaluate the anatomical structures found in the transverse plane of the female pelvis on CT, MRI, and ultrasound images.
11. Assess the anatomical structures found in the transverse plane of small parts on CT, MRI, and ultrasound images.
12. Assess the anatomical structures found in the longitudinal plane of small parts on the CT, MRI, and ultrasound images.

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students will recognize and identify normal cross-sectional anatomy and correlate pathological conditions through various imaging modalities. Students will research and evaluate normal variations in anatomy and pathological conditions to draw sonographic conclusions. Students will critically think and analyze images to understand sonographic anatomical relationships.

Communication Skills (written and oral)

Students will compose reports identifying sonographic characteristics of various anatomical parts and relationships to other structures. Students will effectively communicate orally by using sonographic descriptions to describe anatomical structures when reviewing ultrasound images.

III. Major Course Topics

- A. Head and Neck
- B. Thorax
- C. Abdomen
- D. Pelvis
- E. Upper and Lower Extremities
- F. Small Parts
- G. Introduction to Obstetrical Anatomy
- H. Vascular System