

University of Arkansas - Fort Smith
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General Syllabus

DMSO 32003 Abdominal Sonography I

Credit Hours: 3

Lecture Hours: 2

Laboratory Hours: 2

Prerequisite: DMSO 31103 Cross-Sectional Anatomy

Corequisites: DMSO 32102 Acoustical Physics and Instrumentation II, DMSO 32103 Clinical Practice I, DMSO 32203 Vascular Sonography I

Effective Catalog: 2018-2019

I. Course Information

A. Catalog Description

Human anatomy in the transverse, longitudinal, and coronal planes with emphasis on organs in the abdomen and pelvic cavity. Study of disease process and physiological alterations, sonographic methods to visualize adult and pediatric abdomens, normal variant, congenital anomalies, physiology, and related laboratory tests. Technical information to include procedural and scanning techniques will be examined.

B. Additional Information - None

II. Student Learning Outcomes

A. Subject Matter

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

1. Describe the most common scanning planes in abdominal sonography.
2. Identify sonographic artifacts that could mislead or lead to a false diagnosis.
3. Describe the disease process and consequent physiological alterations to the anatomical structures found in the abdomen.
4. Describe the anatomy and function of the abdominal vascular system.
5. Describe special considerations for pediatric patients undergoing abdominal vascular ultrasound.
6. List laboratory tests and results used to detect liver, gallbladder and pancreatic disease.

7. Describe the anatomy and function of the liver.
8. Compare/contrast adult and pediatric livers
9. Explain the normal variants and pathology associated with liver ultrasound.
10. Describe the anatomy and function of the gallbladder.
11. Describe the normal variants and congenital abnormalities found in the gallbladder.
12. List the types of benign and malignant pathology found in the gallbladder.
13. Describe the sonographic appearance of the pancreas and the transverse and sagittal views using vascular landmarks.
14. Describe the anatomy and function of the pancreas.
15. List the types of pathology found in the pancreas.
16. Describe the scanning protocols for sonographic examinations of the abdomen, liver, pancreas, and gallbladder.

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students will use analytical/critical thinking skills to draw conclusions and/or solve problems. Students will access and evaluate appropriate information through written and electronic means to produce appropriate ultrasound images.

Communication Skills (written and oral)

Students will communicate proficiently. Students will effectively communicate in a variety of ways with fellow students and faculty to relay appropriate clinical information.

III. Major Course Topics

- A. Abdominal Vascular Sonography
- B. Liver
- C. Gastrointestinal Tract
- D. Gallbladder and Biliary Tree