

University of Arkansas - Fort Smith
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General Syllabus

DMSO 43003 Obstetrical and Gynecological Sonography I

Credit Hours: 3

Lecture Hours: 2

Laboratory Hours: 2

Prerequisite: DMSO 32003 Abdominal Sonography I

Corequisite: DMSO 43203 Clinical Practice II

Effective Catalog: 2018-2019

I. Course Information

A. Catalog Description

Study of obstetrical and gynecological anatomy, along with the clinical applications and sonographic methods used to visualize pelvic organs, the pregnant uterus and related structures. Comparison of normal sonographic patterns with identification of pathology, physiology, differentials, related organ development and correlation with lab test is included, along with technical information including procedural and scanning techniques.

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 basic techniques and protocols of scanning in obstetrics and gynecology.
2. Explain the close development relationship between the primitive urinary system and the female reproductive system.
3. Identify the gross and cross-sectional anatomy of the female pelvis on a sonogram.
4. Discuss the types of congenital anomalies of the female genital system and related urinary tract disorders.
5. Describe the role of ultrasound in pediatric gynecology.
6. Describe the sonographic characteristics of benign disease of the female pelvic viscera to include the uterus, ovaries, and fallopian tubes.

7. Discuss the pathophysiology, clinical diagnosis, treatment and sonographic imaging of malignant disease of the uterus and cervix.
8. Correlate the clinical features and sonographic findings of the most common malignant ovarian neoplasms.
9. Explain the role of ultrasound in the management of endometriosis.
10. Compare/contrast normal and abnormal fertilization processes and the factors associated with ectopic pregnancy.
11. Describe the processes that occur from ovulation through the beginning of fetal development.
12. List the most pressing concerns in evaluating the early pregnancy.
13. Describe the gestational development as seen on ultrasound in the first trimester.

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students will generate solutions/analysis of problems/issues evaluated.

Quantitative Reasoning: Students will represent mathematical/statistical information symbolically, visually, numerically, and verbally and will interpret models and data in order to draw inferences.

Communication Skills (written and oral)

Students will effectively communicate orally in a public setting.

III. Major Course Topics

- A. Scanning Techniques in obstetric and Gynecologic Ultrasound
- B. Endovaginal and Embryonic Ultrasound
- C. Sonographic Anatomy of the Female Pelvis
- D. Congenital Anomalies of the Female Genital System
- E. Pediatric Gynecologic Ultrasound
- F. Benign and Malignant Diseases of the Female Pelvis, Uterus, Cervix, and Ovary
- G. Sonographic Assessment of Ectopic Pregnancy
- H. Sonographic Assessment of the First Trimester
- I. Sonographic Overview of Pregnancy
- J. Sonographic Assessment of the Fetal Head, Neck, Spine, Musculoskeletal System