



Master Course Syllabus

OB/GYN Ultrasound II – DMS 2202

Purpose of Document

This document contains important information for transfer. It may be helpful for you to retain a copy for your records, along with the class specific syllabus. This document will be especially helpful if you decide to later change your course of study.

Pikes Peak State College and the Colorado Department of Higher Education have determined that graduates should have a broad range of learning skills as well as discipline related skills. Both types of skills are detailed below.

Course Description

Provides a systematic study of embryology to include development of the major organ systems, with correlation to sonographic imaging, at all stages of embryonic/fetal development and the surrounding environment and the ultimate mastery of the foundations of obstetric and gynecological sonography.

Credit Hours: 2

Contact Hours: 30

Required Course Learning Outcomes

1. Describe the embryological development of major fetal organ systems, including the central nervous, cardiovascular, gastrointestinal, and genitourinary systems.
2. Identify and analyze normal and abnormal sonographic findings in the second and third trimesters of pregnancy.
3. Perform and evaluate fetal biometry measurements (BPD, HC, AC, FL) and assess fetal growth and well-being.
4. Recognize and describe sonographic markers for common congenital anomalies and chromosomal abnormalities.
5. Evaluate the placenta, umbilical cord, and amniotic fluid volume, identifying potential pathologies.
6. Correlate clinical indications and maternal history with sonographic findings in complex obstetric and gynecologic cases.

Topical Outline

- I. Advanced Embryology and Organogenesis
 - a. Development of the fetal brain and spine
 - b. Cardiovascular development and the fetal heart
 - c. Gastrointestinal and genitourinary system formation
- II. Second and Third Trimester Sonography
 - a. Standardized fetal survey protocols
 - b. Fetal positioning and presentation

- c. Assessment of fetal anatomy and symmetry
- III. Fetal Biometry and Growth Assessment
 - a. Measurement techniques for BPD, HC, AC, and FL
 - b. Estimated Fetal Weight (EFW) and growth curves
 - c. Evaluation of Intrauterine Growth Restriction (IUGR) and macrosomia
- IV. Fetal Anomalies and Pathologies
 - a. Central Nervous System (CNS) anomalies
 - b. Thoracic and abdominal wall defects
 - c. Skeletal dysplasias and limb abnormalities
- V. The Fetal Environment
 - a. Placental location, grading, and abnormalities (e.g., previa, abruption)
 - b. Umbilical cord assessment (e.g., Doppler, number of vessels)
 - c. Amniotic Fluid Index (AFI) and Single Deepest Pocket (SDP) evaluation
- VI. High-Risk Obstetrics and Clinical Correlation
 - a. Multiple gestations and associated complications
 - b. Maternal conditions affecting the fetus (e.g., diabetes, hypertension)
 - c. Integrating sonographic findings into the clinical report