

**BERGEN COMMUNITY COLLEGE
DIVISION OF HEALTH PROFESSIONS
DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM**

DMS 226 Obstetrical Sonography II

2 lec., 3 lab., 3 Credits (5 hours)

Prerequisites: BIO-109; DMS-102; DMS-113; DMS-115

Co-requisites: DMS-201; DMS-204; DMS-213; DMS-218

COURSE DESCRIPTION: OB Sonography II is a continuance of Ob/Gyn Sonography designed to familiarize the students with the pathophysiology of the female reproductive system. Pelvic scanning protocol along with sonographic interpretation will be utilized in labs. Normal and abnormal obstetrical patterns will be taught and emphasis will be placed on recognition of normal anatomical appearances of a fetus in the second and third trimester. Chromosomal and congenital anomalies are discussed as well as the importance of differential diagnoses. High risk OB ultrasound is presented. Pathological and physiological data for interpretation is stressed. The sonographic criteria for evaluation of the gravid uterus, postpartum uterus, and the fetus will be included.

COURSE OBJECTIVES:

- ✓ Describe scan protocol in ultrasound scanning as it pertains to obstetrical imaging in the 2nd and 3rd trimester.
- ✓ Describe normal and abnormal developments occurring in the 2nd and 3rd trimester of pregnancy.
- ✓ Evaluate fetal age and fetal well being using sonographic measurements and criteria.
- ✓ Identify congenital and chromosomal abnormalities diagnosed by ultrasound.
- ✓ Explain Chorionic Villus Sampling, amniocentesis, and PUBS when dealing with high risk pregnancy.
- ✓ Explain the components of a Biophysical Profile exam.
- ✓ Identify normal and abnormal sonographic appearances when dealing with the postpartum uterus.
- ✓ Describe the sonographic appearance of the normal and abnormal placenta and umbilical cord.
- ✓ Describe amniotic fluid production in the 2nd and 3rd trimester and
- ✓ Analyze the amniotic fluid volume
- ✓ Discuss new techniques utilized in-utero to correct congenital defects in the later stages of pregnancy.

TEXTBOOKS REQUIRED:

- Hagan-Ansert, Sandra; Textbook of Diagnostic Ultrasonography; 7th edition; Mosby, St. Louis, Missouri, 2012.

COURSE POLICIES:

- Laboratory scanning time CANNOT be made up.
- Missed quizzes or exams, due to tardiness or absence must be made up in the Testing Center **before the next class meeting.**
- A physician's note must be submitted for any absence on a scheduled test day. The missed test must be made up in the Testing Center before the next class meeting.
- Cell phone use is prohibited in the classroom and must be turned off at all times.
- For lab scanning, students are required to be prepared for a pelvic ultrasound exam (properly distended bladder). Failure to be prepared will cause your classmates to lose precious scanning time.
- The lowest quiz grade will be dropped.

ASSESSMENT: Knowledge of course objectives will be assessed by verbal questions prior to, and at the end of each class, quizzes, tests, and lab worksheets. Students will be required to perform a full female trans-abdominal pelvic exam, a full trans-vaginal pelvic exam on an ultrasound phantom, and a fetal biometry exam (BPD, HC, AC, and Femur length) on an ultrasound phantom.

NUMERICAL GRADE CALCULATION

Quiz average	35%
Test #1	15%
Test #2	15%
Lab scanning exam	35% (full pelvic exam)

FINAL GRADE CALCULATION

92 to 100	A
88 to 91.9	B+
83 to 87.9	B
79 to 82.9	C+
75 to 78.9	C
0 to 74.9	F

All grades are “absolute” and will not be rounded off.

COURSE OF STUDY (Subject to change)

Week 1	Normal fetal anatomy in 2 nd and 3 rd trimester
Week 2	Fetal growth assessment Diagnostic criteria for intrauterine growth restriction Tests of fetal well being Fetal macrosomia
Week 3	Ultrasound and high risk pregnancy
Week 4	Prenatal diagnosis of congenital anomalies Genetic testing Maternal serum markers Chromosomal abnormalities
Week 5	Normal and abnormal placenta Abnormalities of the umbilical cord
Week 6	Amniotic Fluid and Membranes Polyhydramnios Oligohydramnios
Week 7	TEST #1 (Lectures 1 – 6)
Week 8	Fetal face and neck
Week 9	Fetal neural axis
Week 10	Normal sonographic characteristics of fetal thorax Abnormalities of the thoracic cavity
Week 11	Sonographic evaluation of the fetal abdominal wall Abnormalities of the anterior abdominal wall
Week 12	Sonographic evaluation of the abdominal cavity Abnormalities of the hepatobiliary system Abnormalities of the gastrointestinal tract Cystic masses in the abdomen

Week 13 Fetal urinary system
Sonographic evaluation of the urinary tract
Abnormalities of the urinary tract
Renal cystic disease
Congenital malformation of the genital system

Week 14 Abnormalities of the fetal skeleton
Miscellaneous limb abnormalities

Week 15 **TEST #2 (Lectures 7 – 13)**