

Bergen Community College  
Division of Health Professions  
Department of Diagnostic Medical Sonography

**DMS-226 Obstetrical Sonography II**

**Course Information**

Semester and Year:  
Course and Section Number:  
Meeting Times and Locations:  
Instructor:  
Office Location:  
Phone:  
Departmental Secretary:  
Office Hours:  
Email Address:

**Course Description**

This course is a continuance of OB/GYN Sonography designed to familiarize the students with the pathophysiology of the female reproductive pelvic scanning protocol will also be discussed and sonographic interpretation will be utilized in the labs. Normal and abnormal obstetrical patterns will be taught, and emphasis is placed on recognizing the essential sonographic appearance when doing an obstetrical exam in 2nd and 3rd trimester. Chromosomal and congenital anomalies are discussed and the importance of the differential diagnosis. Level II and high-risk OB ultrasound are presented. Pathological and/or physiological data for the interpretation by physicians is stressed. The sonographic criteria for evaluation of the gravid uterus, postpartum uterus and the fetus will be demonstrated.

3 Credits  
2 Lecture Hours  
3 Lab Hours

Prerequisites: [BIO-209](#); [DMS-205](#); [DMS-219](#)

Corequisites: [DMS-214](#); [DMS-220](#)

**Student Learning Outcomes:** As a result of meeting the requirements in this course, students will be able to:

1. Describe the scan protocol in ultrasound scanning as it pertains to obstetrical imaging in the 2<sup>nd</sup> and 3<sup>rd</sup> trimester.
2. Identify normal and abnormal developments occurring in the 2<sup>nd</sup> and 3<sup>rd</sup> trimester of pregnancy, relating to the fetus, placenta, umbilical cord, and amniotic fluid volume.
3. Recognize normal and abnormal sonographic appearances of the postpartum uterus.
4. Explain the evaluation of fetal age and fetal well-being using sonographic measurements and criteria.
5. Compare the methods of screening and diagnostic testing for high-risk pregnancy.

**Means of Assessment:** Students will be assessed in the following methods:

Midterm and final examinations, quizzes, lab preparations and assignments, and scanning protocols: Full female transabdominal pelvic exam, full transvaginal first trimester pelvic exam on TV phantom, and a fetal biometry exam on fetal phantom.

**Course Content**

Recognition of normal anatomical appearances of the second and third trimester fetus and developing systems is stressed. Evaluation of fetal age and well-being using fetal biometry and biophysical profile is discussed. High-risk

OB ultrasound is presented well as methods of testing for chromosomal and congenital anomalies. Pathological and physiological data for interpretation is stressed as well as the importance of differential diagnoses. The sonographic criteria for evaluation of the gravid uterus, postpartum uterus, and the fetus will be included. Transabdominal pelvic scanning and well as fetal phantom protocols along with sonographic interpretation will be utilized in labs.

### **Course Texts and/or Other Study Materials**

Hagen-Ansert, Sandra; *Textbook of Diagnostic Ultrasonography*; Elsevier, St. Louis, Missouri.

### **Grading Policy**

Lab assignments will include writing exam reports, participating in graded online discussions, and reports for assignments in the Interdisciplinary Center for Simulation. Guidelines for these assignments will be determined by the instructor. The midterm and final are cumulative.

### **FINAL GRADE CALCULATION:**

Quiz average 30%

Midterm: 20%

Final: 20%

Lab scanning Exam 25%

Fetal Phantom Exam 2%

First Trimester Phantom Exam 1%

Assignments/Lab prep 2%

**GRADE SCALE:** All grades are absolute and will NOT be rounded off.

|           |             |           |             |
|-----------|-------------|-----------|-------------|
| <b>A</b>  | 92% – 100%  | <b>C+</b> | 79% – 82.9% |
| <b>B+</b> | 88% – 91.9% | <b>C</b>  | 75% – 78.9% |
| <b>B</b>  | 83% – 87.9% | <b>F</b>  | 0% – 74.9%  |

### **Academic Integrity Policy and Attendance Policy**

#### *Academic Integrity*

Academic dishonesty is a serious violation of BCC policy and personal ethics and will be treated as such if the reason for suspicion should arise. Students should be careful to avoid plagiarism, falsification, and compliance. Academic integrity is vital to an academic community and for fair evaluation of student assessments. All assessments submitted must be your own, completed in accordance with the college's academic policies and the student code of conduct. You may not engage in unauthorized collaboration or make use of any artificial intelligence (AI) composition systems. Academic dishonesty also includes cheating on examinations. Refer to the [BCC student code of conduct](https://catalog.bergen.edu/content.php?catoid=4&navoid=163#academic-dishonesty), student handbook for additional information, and the statement on plagiarism (<https://catalog.bergen.edu/content.php?catoid=4&navoid=163#academic-dishonesty>).

#### *BCC Attendance Policy*

All students are expected to attend and be punctual for every scheduled meeting of each course in which the student is registered. Attendance and lateness policies and sanctions are to be determined by the director for each section of each course. These are in writing in the Policy and Procedure Student Handbook and in each course outline.

### **Other College, Divisional, and/or Departmental Policy Statements**

#### **Accommodations for Disabilities**

Bergen community college aims to create inclusive learning environments where all students have maximum opportunities for success. Any student who feels he or she may need an accommodation based on a disability should contact the Office of Special Services.

Americans with Disabilities Act: Students who require accommodations by the Americans with Disabilities Act [ADA] can request support services from "The Office of Specialized Services of Bergen Community College] 201-612-5270/5269 or via email at [ossinfo@bergen.edu](mailto:ossinfo@bergen.edu).

### **Mental Health and Well Being**

Mental Health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. Bergen Community College has licensed personal counselors available to assist you with addressing these and other concerns you may be experiencing.

You can learn about the confidential mental health services available on campus via the Health and Wellness Center at [www.bergen.edu/personal\\_counseling](http://www.bergen.edu/personal_counseling).

### **Student and Faculty Support Services Available Online and On-Campus Resources**

Library- <https://bergen.edu/library/>

Academic support <https://bergen.edu/academics/pathway-scholars-program/academic-support>

The Writing center and Tutoring Center- L-125 [https://Bergen.edu/tutoring/writing\\_center/](https://Bergen.edu/tutoring/writing_center/)  
OWL(Online Writing Lab) <http://www.owl.english.perdue>

Free Time Computer Labs [https://Bergen.edu/technology\\_assistance/computer\\_lab\\_availability/](https://Bergen.edu/technology_assistance/computer_lab_availability/)

The Center for student A-118 (Academic, Career, International, and Transfer Counselors)  
<https://bergen.edu/center-for-student-success/>

Personal counseling HS-100 <https://bergen.edu/health-wellness-and-personal-counseling/personalcounseling/>

### **Sample Course Outline**

| <b>Week</b> | <b>Topic/Activity</b>   | <b>Assignments/Events</b> |
|-------------|---|---------------------------|
| 1           | <b>Lecture 1:</b><br>Normal fetal anatomy in 2 <sup>nd</sup> and 3 <sup>rd</sup> trimester  |                           |
| 2           | <b>PELVIC LAB</b><br><b>Lecture 2:</b><br>Fetal growth assessment and cardiac views<br>Diagnostic criteria for intrauterine growth restriction<br><br>Tests of fetal well being<br>Fetal macrosomia | Quiz 1: Lecture 1         |
| 3           | <b>PELVIC LAB</b><br><b>Lecture 3:</b><br>Ultrasound and high-risk pregnancy  |                           |

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| 4  | <b>PELVIC LAB</b><br><b>Lecture 4:</b><br>Prenatal diagnosis of congenital anomalies<br>Genetic testing<br>Maternal serum markers<br>Chromosomal abnormalities   | Quiz 2: Lectures 2 and 3                               |
| 5  | <b>PELVIC LAB</b><br><b>Lecture 5:</b><br>Normal and abnormal placenta<br>Abnormalities of the umbilical cord  |  |
| 6  | <b>PELVIC LAB</b><br><b>Lecture 6:</b><br>Amniotic Fluid and Membranes<br>Polyhydramnios<br>Oligohydramnios  | Quiz 3: Lectures 4 and 5                               |
| 7  | <b>PELVIC LAB</b>  | Midterm (Lectures 1-6)                                 |
| 8  | <b>PELVIC LAB</b><br>Lecture 7:<br>Fetal face and neck   |  |
| 9  | <b>PELVIC LAB</b><br><b>Lecture 8:</b><br>Fetal neural axis  | Quiz 4: Lecture  |
| 10 | <b>PELVIC LAB</b><br><b>Lecture 9:</b><br>Normal sonographic characteristics of fetal thorax<br>Abnormalities of the thoracic cavity   | Quiz 5: Lecture 8                                      |
| 11 | <b>PELVIC LAB</b><br><b>Lecture 10:</b><br>Sonographic evaluation of the fetal abdominal wall<br>Abnormalities of the anterior abdominal wall  |  |
| 12 | <b>PELVIC LAB</b><br><b>Interdisciplinary Center for Simulation Assignment DUE</b>   | Interdisciplinary Center for Simulation Assignment DUE |
| 13 | <b>PELVIC LAB</b><br><b>Lecture 11:</b><br>Sonographic evaluation of the abdominal cavity<br>Abnormalities of the hepatobiliary system<br>Abnormalities of the gastrointestinal tract<br>Cystic masses in the abdomen<br>Congenital malformation of the genital system | Quiz 6: Lectures 9 and 10                              |
| 14 | <b>PELVIC LAB</b><br><b>Lecture 12:</b><br>Fetal urinary system<br>Sonographic evaluation of the urinary tract<br>Abnormalities of the urinary tract<br>Renal cystic disease   | OB FILM REVIEW   |

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|----|--|----------------------------|
| 15 | <b>PELVIC LAB</b><br><b>Lecture 13:</b><br>Abnormalities of the fetal skeleton<br>Miscellaneous limb abnormalities | Quiz 7: Lectures 11 and 12 |
| 16 | <b>PELVIC TESTING</b>  | Final (Lectures 7-13)      |

**Note to Students:** This Course Outline and Calendar is tentative and subject to change, depending upon the progress of the class.