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

## DMS-205 Obstetric and Gynecological Sonography

#### **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 designed to familiarize students with the pathophysiology of the female reproductive system, gynecological anomalies and normal and abnormal first trimester pregnancy. Pelvic scanning protocol will also be discussed and sonographic interpretation will be utilized. Recognizing the normal and abnormal sonographic patterns in gynecology and first trimester pregnancy will be covered. Pathological and/or physiological data for the interpretation by physicians is stressed. The sonographic criteria for evaluation of the gravid uterus and fetus will be demonstrated.

3 Credits 2 Lecture Hours 3 Lab Hours

Prerequisites: BIO-109, DMS-102, DMS-113, DMS-115 Corequisites: DMS-201, DMS-204, DMS-213, DMS-218

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

- 1. Identify normal and abnormal female pelvic anatomy and conditions using words, diagrams, and ultrasound scans
- 2. Describe scan protocol with transabdominal and transvaginal scanning, pertaining to gravid and nongravid patients
- 3. Evaluate the sonographic appearance of congenital abnormalities and pathologies, comparing results of laboratory and diagnostic tests to help establish a diagnosis.
- 4. Perform a limited pelvic ultrasound in accordance with the lab objectives specified, documenting sonographic findings in written form on exam worksheets
- 5. Estimate fetal age in first trimester using sonographic measurements, and identify normal and abnormal sonographic appearances in first trimester pregnancy

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

Midterm and final examinations, quizzes, lab preparations and assignments, and scanning protocols: TA Pelvic and TV Phantom

#### **Course Content**

Obstetric and Gynecological Sonography is a course designed to familiarize students with the pathophysiology of the female reproductive system, gynecological anomalies, and normal and abnormal first trimester pregnancy. Pelvic scanning protocol will also be discussed and sonographic interpretation will be utilized. Recognizing the normal and abnormal sonographic patterns in gynecology and first trimester pregnancy will be covered. Pathological and/or physiological data for the interpretation by physicians is stressed. The sonographic criteria for evaluation of the gravid uterus and fetus will be demonstrated. Embryology will be stressed.

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

Hagan-Ansert, Sandra; Textbook of Diagnostic Ultrasonography; Volume 2.; Mosby, St. Louis, Missouri.

#### **Grading Policy**

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

NUMERICAL GRADE CALCULATION

### FINAL GRADE CALCULATION

30%	92 to 100	Α
20%	88 to 91.9	B+
20%	83 to 87.9	В
25%	79 to 82.9	C+
3%	75 to 78.9	С
2%	0 to 74.9	F
	30% 20% 25% 3% 2%	30%92 to 10020%88 to 91.920%83 to 87.925%79 to 82.93%75 to 78.92%0 to 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 <u>BCC student code of conduct</u>, 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 <u>ossinfo@bergen.edu</u>.

#### 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 <u>www.bergen.edu/personal counseling</u>.

#### Student and Facility 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/ OWL(Online Writing Lab) http://www.owl.english.perdue

Free Time Computer Labs https//Bergen.edu/technology assistance/computer lab availability/

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

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

#### Sample Course Outline

Week	Topic/Activity	Assignments/Events
1	Lab: Introduction to pelvic lab scanning Longitudinal image of the uterus with length and AP measurement Longitudinal image of endometrium, magnified and measured in AP Phantom scanning TV and Intelligent Ultrasound Lecture 1: Normal anatomy of female pelvis Pelvic Musculature Pelvic Vasculature Introduction to sonographic evaluation of the female pelvis (transabdominal and transvaginal)	
2	Lab: Transverse image of the vagina Transverse image of the cervix Transverse image of the uterus with width measurement Transverse bladder Phantom scanning TV Lecture 2: Normal anatomy of the vagina, uterus, ovaries, and fallopian tubes Positions of the uterus Pelvic spaces	

3	Lab: Longitudinal image of right ovary verified with color Doppler Longitudinal image of right ovary magnified and measured in AP Phantom scanning TV Lecture 3: Physiology of the menstrual cycle and endometrial changes Sonographic characteristics of pelvic organs	QUIZ on lectures 1 and 2
4	Lab: Transverse image of right ovary with color Doppler Transverse image of right ovary magnified with width measurement Longitudinal image of right adnexa Phantom scanning TV Lecture 4: Congenital malformations of the uterus Pathology of the cervix, vagina, and uterus Lost intrauterine conceptive devices	
5	Lab: Longitudinal image of left ovary with color Doppler Longitudinal image of left ovary magnified and measured in AP Phantom scanning TV Lecture 5: Pathology of endometrium (endometritis, polyps, hyperplasia, CA, etc.) Pathology of the adnexa (PID, TOA, endometriosis, endometrioma)	QUIZ on lectures 3 and 4
6	Lab: Transverse image of left ovary with color Doppler Transverse image of left ovary magnified and with width measurement Longitudinal image of left adnexa Phantom scanning TV and fetal Lecture 6: Anatomy of the ovaries and normal sonographic appearance Sonographic evaluation of the ovaries Benign adnexal/ovarian cysts Ovarian torsion	
7	Lab: Pelvic scanning / scanning TV and fetal Lecture 7: Pathologies of the ovaries	QUIZ on lectures 5 and 6
8	Lab: Pelvic scanning / scanning TV and fetal Lecture: MID-TERM EXAM lectures 1-6 (not lecture 7)	PHANTOM TV TESTING MID-TERM EXAM lectures 1- 6 (not lecture 7)

9	Lab: Pelvic scanning Phantom scanning TV and fetal Lecture 8: Indications for 1 <sup>st</sup> trimester US exams Normal 1 <sup>st</sup> trimester pregnancy Embryology Determination of gestational age	PHANTOM TV TESTING QUIZ Lecture 7
10	Lab: Pelvic scanning Phantom scanning TV and fetal Lecture 9: Multiple gestations Embryonic abnormalities First trimester pelvic masses Ectopic pregnancy	PHANTOM TV TESTING
11	Lab: Pelvic scanning Phantom scanning TV and fetal	PHANTOM TV TESTING
12	Lab: Practice entire limited pelvic protocol / Phantom scanning TV and fetal Lecture 10: Abnormal pregnancies First trimester bleeding Indications for 2 <sup>nd</sup> and 3 <sup>rd</sup> trimester ultrasound exams Fetal presentation	PHANTOM TV TESTING QUIZ on lectures 8 and 9
13	Lab: Practice entire limited pelvic protocol / Phantom scanning TV and fetal Lecture 11: Gestational age assessment: second and third trimesters	PHANTOM TV TESTING FILM REVIEW (approximately 50 images)
14	Lab: <i>Pelvic lab testing</i> Lecture 12: The placenta; embryogenesis Sonographic evaluation of the normal placenta	PHANTOM TV TESTING QUIZ on lectures 10 and 11
15	Lab: <i>Pelvic lab testing</i> Lecture: FINAL EXAM	Pelvic lab testing FINAL EXAM

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