

**BERGENCOMMUNITY COLLEGE
DIVISION OF HEALTH PROFESSIONS
DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM**

DMS 228 Advanced Ultrasound Practices

COURSE DESCRIPTION: Advanced Ultrasound Practices is a course that is designed to explore specialty techniques in the areas of Abdomen, Obstetrics and Gynecology, and Vascular ultrasound. Intra-operative procedures will be discussed in all specialties. Specialized equipment will also be discussed. Independent learning assignments and various lecture formats will enhance the course. Journal articles will be introduced. Neurosonography will be stressed to include normal and abnormal sonographic findings. Veterinary ultrasound will be introduced.

1 credit, 3-hour lab

Prerequisite: DMS 213; DMS 226; DMS 229

Co-requisite: DMS 223; DMS 226

COURSE OBJECTIVES: At the end of this course, the student will be able to:

- Describe and explain new and specialized procedures, techniques, and equipment used in Abdominal, Ob/Gyn, Small parts, and Vascular ultrasound.
- Research, and discuss current topics and literature related to Diagnostic Medical Sonography.
- Write a comprehensive resume to assist them in finding employment after completion of the program.
- Identify cranial anatomy visualized in neurosonography in both the coronal and sagittal planes.
- Describe the sonographic appearance of cranial anatomy seen in neurosonography.
- Perform emergency Cardiopulmonary Respiration (CPR)

ASSESSMENT: Knowledge of the course objectives will be assessed by the use of laboratory work sheets for each topic. Research presentations will be assessed by the use of a rubrix.

COURSE POLICIES: For successful completion of the course, the following requirements must be met:

1. Students are expected to participate in class and lab activities. More than two absences will result in a ten point deduction from final grade.
2. Lab assignments must be completed **independently** and handed in at the conclusion of the class unless otherwise indicated. Late assignments will not be accepted.
3. Each student will research an advanced topic in ultrasound (topic to be approved by the instructor.) Two class sessions will be devoted to research presentations. Research presentations will be graded by the use of a rubrix.
4. The DMS Medical Director will conduct a series of evening seminars. Attendance is mandatory unless it interferes with another BCC course.
5. The lowest lab grade will be dropped.

FINAL GRADE CALCULATION:

Written lab assignments 70%
 Research presentation 30%

GRADE COMPUTATION:

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

COURSE OF STUDY**(TENTATIVE – contingent upon availability of Dr. Ayers)**

- Week 1** “Sonohysterography”
- Week 2** Dr. Ayers
- Week 3** “Scrotal Ultrasound”
- Week 4** “Doppler Physics and Color Fundamentals”
Presentation topic and bibliography due
- Week 5** “Breast Ultrasound”
- Week 6** Dr. Ayers
- Week 7** Resume writing
- Week 8** “Musculoskeletal Ultrasound Imaging: Lower Extremities”
- Week 9** Dr. Ayers
Outline and photocopies of references for research presentation due
- Week 10** “Ultrasound of Hernias and the Hip”
- Week 11** “3D-4D Fundamentals for OB/GYN Sonography”
- Week 12** “Ultrasound of Superficial Lumps and Bumps, Nodes, and Salivary Glands”
- Week 13** Dr. Ayers
- Week 14** Research Presentations (Wear clinical uniforms for class picture)
- Week 15** Research Presentation