

BERGEN COMMUNITY COLLEGE  
DIVISION OF HEALTH PROFESSIONS  
DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM

**DMS 230- Comprehensive Review**

Summer U

C212-Ultrasound Lab  
Pre-requisites DMS 227, 228  
Co-requisites DMS 222  
3 lec. 3 credits

**COURSE DESCRIPTION:** This course will review specialty areas pertinent to sonography in preparation for the ARDMS exam. Emphasis will be placed on ultrasound physics, general and cardiac concentrations. Upon completion of the program, students are eligible to take the ARDMS exams in Abdomen, Ob/Gyn, and Adult Echocardiography. The matrix of ARDMS exams for Abdomen, Obstetrics and Gynecology, and Adult Echocardiography will be followed. Seventy percent of the matrix on all specialties will be reviewed. The remaining 30% will be presented in the program courses specifically focused on the specialties mentioned. Students are required to pass the exit examination in all three specialties as a requirement for program eligibility to take the ARDMS exams.

**COURSE OBJECTIVES:** Upon completion of the course, the student will be able to demonstrate in preparation for the ARDMS exam/s to:

1. Define the normal and abnormal sonographic patterns of the abdominal organs.
2. Describe the normal and abnormal sonographic appearances of the uterus, ovaries, adnexa and pelvic muscles.
3. Recognize normal and abnormal fetal anatomy routinely seen on ultrasound.
4. Recognize the normal and abnormal sonographic patterns seen in the postmenopausal patient.
5. List the sonographic findings of coexisting disorders associated with pregnancy.
6. Define the normal and abnormal sonographic patterns of the cardiac chambers and great vessels.
7. Describe basic instrumentation of an ultrasound machine.
8. Describe the sonographic patterns seen in Valvular Heart Disease.
9. Recognize the sonographic patterns of wall motion abnormalities and thrombi, aneurysm, valve dysfunction, ruptured myocardium and right ventricular involvement.
10. Discuss Congenital Heart Disease in the adult, and recognize sonographic postoperative findings associated with this condition.
11. Discuss the types and means of assessing ventricular and atrial septal defects, aortic valve defects, pulmonic stenosis and cleft mitral valve.
12. Discuss formulas for Doppler measurements to include Bernoulli equation and Color Flow Mapping.
13. Explain the technique when doing a Stress Echo.
14. Relate M-mode and Doppler measurements cardiac disease and dysfunction.

This course is team shared. A registry manual will be distributed which will provide broad content information and breakdown outline as describe on the ARDMS website. Students are encouraged to visit [www.ardms.org](http://www.ardms.org) for the registry outline and sample questions provided.

**COURSE REQUIREMENTS:** For successful completion of the course, the following requirements must be met.

1. Students are expected to be in attendance for the assigned dates for the review and exit exam dates specified.
2. Students are required to complete all projects as specified by the individual instructor.
3. Students are expected to review the subject matter prior to class to have a basic knowledge of the specialty presented on that specified day.
4. Students are required to complete all mock registry exams as indicated by the instructor.
5. Students are expected to identify his/her individual “weak areas” in each specialty listed.
6. Students are required to pass the exit exams in Abdomen, OB/Gyn and Adult Echocardiography. This is contingent to sit for the A.R.D.M.S registry exams.

**FINAL GRADE:** Final grade will be calculated as follows:

Three exit exams Abdomen	33%
Ob/Gyn	33%
Echocardiograph	34%

Attendance and punctuality are required.

All exit exams must be successfully completed to pass this course. A grade of “INC” is given until the student passes the exam(s) or the “Incomplete” deadline is reached.