

**NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
DMS 219 - ULTRASOUND PHYSICS AND INSTRUMENTATION LABORATORY II (1 CR.)**

Course Description

Presents advanced practice with instrumentation, hemodynamics, Doppler instrumentation and pulse-echo technology. Laboratory 2 hours per week.

General Course Purpose

This course provides hands-on experience to reinforce knowledge gained in DMS 208.

Course Prerequisites/Co-requisites

Co-requisite is DMS 209. The student must satisfactorily complete all previous sonography courses with a grade of "C" or better.

Course Objectives

At the completion of this course the student will be able to:

- Demonstrate understanding of advanced acoustical physics principles
- Demonstrate acoustical attenuation
- Demonstrate use of Doppler instrumentation
- Demonstrate hemodynamics
- Identify the components in pulse-echo instrumentation
- Demonstrate the use of storage devices for images
- Design an advanced quality assurance program to include phantom testing

Major Topics to be Included

- a. Advanced acoustical physics
- b. Doppler technology
- c. Hemodynamics
- d. Pulse-echo instrumentation
- e. Advanced quality assurance