

**NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
DMS 218 - ULTRASOUND PHYSICS AND INSTRUMENTATION LABORATORY I (1 CR.)**

Course Description

Presents practice with basic instrumentation, mathematical calculations, and basic properties of acoustical physics. 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

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 the principles of acoustical physics
- Demonstrate proper use of the basic types of equipment used in sonography
- Demonstrate the interactions of sound with tissue
- Differentiate among various transducer types to include sector, linear and phased arrays
- Calculate using the units of measurement used in sonography
- Demonstrate basic quality assurance practices related to sonography equipment

Major Topics to be Included

- a. Principles of acoustical physics
- b. Components of ultrasound equipment
- c. Units of measurement
- d. Quality assurance programs