



Basic Principles of Ultrasound Imaging COURSE OVERVIEW

Course: This course covers Basic Ultrasound Theory and Scanning.

Included is coverage of Ultrasound overview, Ultrasound Physics, Common terminology used by Sonographer and Basic Scanning Techniques to familiarize the student with the role of the Sonographer

Qualifications for Admission: Students should have prior Ultrasound exposure, preferably with Diagnostic Ultrasound systems. They should have a minimum of a two-year degree in electronics or equivalent experience. Students should have basic computer skills and a laptop computer.

Course Overview:

Features: Knobology, Scan Protocols and Image Quality performance verification.

- Ultrasound definition
- Echo overview
 - Radar principles
 - Sonar principles
 - Ultrasound Advantages/Disadvantages
 - 2-D/3-D/4D Mode scanning
 - Color Mode Scanning
 - Doppler Mode Scanning
 - M-Mode Scanning
 - User Interface Module
- Monitor/LCD display

Summary: Upon Completion of the 1 day course, the engineer should be able to demonstrate proficient skills to communicate effectively with the Sonographer and verify system performance and Image Quality concerns. Hands on laboratory exercises will give the engineer experience with scanning an Artery, Vein, Kidney/Liver and Heart.

Course outline may change to meet student's needs