

Gulfcoast Ultrasound Institute
CRITICAL CARE SONOGRAPHY

Day One

- 7:15 Welcome
7:30 Imaging Fundamentals
8:15 Break
8:30 Focused Cardiac Ultrasound exam
9:15 **“Live demonstration-cardiac Scanning”**
 - Some system controls
 - Probe mechanics
 - Imaging windows & orientation

9:45 Break
10:00 Cardiac Pathology*
 - PE (Pleural & Pericardial)
 - CHF
 - Hypotension
 - LV Function
 - Qualitative Assessment of valvular disease
 - TEE

11:15 Ultrasound-Guided Procedures
 - Vascular access
 - Pneumothorax
 - Thoracentesis

12:15 Lunch
1:00 Hands-On
5:00 Adjourn

Course Description:

This program is structured with lectures using PowerPoint and interactive case studies during the morning sessions and hands-on workshops during the afternoon. Topics include Imaging Fundamentals, Focused Cardiac exam, and selected ultrasound-guided procedures.

The program is taught by critical care physicians and registered sonographers who are experienced performing and interpreting ultrasound examinations involving critical care applications. A critical component of the program is the extensive amount of hands-on instruction provided with a low participant to instructor ratio (typically 3:1, not to exceed 4:1).

Course Objectives: Critical Care Ultrasound

At the completion of the program the participant should be able to:

1. Discuss the basic fundamentals of ultrasound physics/instrumentation and recognize image artifacts.
2. Demonstrate the operation of the ultrasound system controls and transducer selection.
3. Perform routine scan protocols for focused evaluation of the adult heart.
4. Recognize normal/abnormal image characteristics of adult heart.
5. Describe image orientation, transducer preparation, and scan protocols for performing use of ultrasound guidance in the placement of peripheral and central venous lines and arterial catheters.
6. Demonstrate ultrasound applications in the evaluation of the critically ill unstable patient.
7. Increase knowledge and confidence to apply the information discussed in a clinical setting (ideally under supervised conditions until an acceptable level of proficiency and appropriate hospital credentialing has been achieved).

Target Audience: Physician participants may include (but is not limited to) Critical care, intensivists, pulmonologists, trauma, emergency medicine, Internal medicine, and Family practice physicians who will be involved with performing and interpreting ultrasound examinations in a critical care setting.