

# **Introduction to Critical Care and Advanced Emergency & Critical Care Ultrasound**

June 16 – 17, 2022

Thursday, June 16, 2022	
8:30 AM	Welcome and Continental Breakfast
8:45	Hands-On Scanning – Session 1
9:45	10 Minute Break: Model Rotation
9:55	Hands-On Scanning – Session 2
10:55	5 Minute Break: Model Rotation
11:00	Hands-On Scanning – Session 3
12:00	Lunch
1:05	Hands-On Scanning – Session 4
2:05	15 Minute Break: Model Rotation
2:20	Hands-On Scanning – Session 5
3:20	10 Minute Break: Model Rotation
3:30	Hands-on Scanning: Session 6
4:30	Adjourn

Friday, June 17, 2022	
8:30 AM	Welcome and Continental Breakfast
8:45	Hands-On Scanning – Session 1
9:45	10 Minute Break: Model Rotation
9:55	Hands-On Scanning – Session 2
10:55	5 Minute Break: Model Rotation
11:00	Hands-On Scanning – Session 3
12:00	Lunch
1:05	Hands-On Scanning – Session 4
2:05	15 Minute Break: Model Rotation
2:20	Hands-On Scanning – Session 5
3:20	10 Minute Break: Model Rotation
3:30	Hands-on Scanning: Session 6
4:30	Adjourn

<sup>\*\*</sup> This is a tentative itinerary and is subject to change. Times listed are Eastern Time (ET).



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The Gulfcoast Ultrasound Institute is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The Gulfcoast Ultrasound Institute designates this live educational activity for a maximum of 12.0 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the educational activity.

Approved by the American College of Emergency Physicians (ACEP) for a maximum of 12.0 hour(s) of Category I credit.

This course also meets CME / CEU requirements for ARDMS. Note: While offering the CME credit hours noted above, activities are not intended to provide extensive training or certification for exam performance or interpretation.

#### **NEEDS STATEMENT:**

The planning committee has determined a need for the following educational activity based on request from the medical community, expanded utilization of ultrasound, and lab accreditation requirements.

#### COURSE OBJECTIVES:

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

- 1. Increase participant's knowledge to better perform and/or interpret Critical care ultrasound examinations
- 2. State the basic fundamentals of ultrasound physics and demonstrate appropriate optimization of system controls.
- 3. Perform ultrasound evaluation of the trauma patient (E-FAST exam).
- 4. Demonstrate image orientation, transducer placement, and scan protocols for performing ultrasound evaluation of pneumothorax.
- 5. Demonstrate scan protocols for focused evaluation of the abdomen, aorta, and adult heart, and lower extremity DVT.
- 6. Demonstrate image orientation, transducer preparation, and scan protocols for performing ultrasound guided vascular access.
- 7. Differentiate normal/abnormal image characteristics of the abdomen and adult heart.
- 8. State an algorithm for assessing causes of shock and hypotension using bedside ultrasound.
- 9. Demonstrate protocols for performing thoracentesis, pericardiocentesis, paracentesis, and lumbar puncture.
- 10. Increase the participant's knowledge to better perform and/or interpret Advanced Emergency Medicine & Critical Care Ultrasound examinations.
- 11. Identify sonographic characteristics associated with abdominal sepsis involving the hepatobiliary, renal, and GI systems.
- 12. Outline indications and applications of color Doppler in the emergency and critical care setting.
- 13. Perform ultrasound evaluation of the lung, ocular, soft-tissue, musculoskeletal and bony cortices in the emergency department. (EM)
- 14. Demonstrate the use of ultrasound guidance for peripheral vascular access.
- 15. State principles of spectral and cardiac Doppler fundamentals and apply quantitative methods to evaluate acute valvular abnormalities.
- 16. Recognize the sonographic appearance of individual nerves and list the advantages provided when ultrasound is used for performing regional nerve blocks. (EM)
- 17. Evaluate fluid responsiveness in the critically ill patient.
- 18. Perform testicular ultrasound and recognize acute abnormalities. (EM)
- 19. Increase confidence to incorporate protocols, scan techniques, and interpretation criteria to improve diagnostic/treatment accuracy.

While offering CME credits this activity is not intended to provide extensive training or certification for performing or interpreting critical care and advance emergency medicine and critical care ultrasound examinations. We recommend working under supervised conditions until an accepted level of proficiency has been achieved.

A special thanks to the following ultrasound equipment manufacturers who provide various (in kind) equipment support to help make our programs possible (companies listed are as of the time of printing).



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## Disclosure of Individuals in Control of Content

The following individuals are recognized by GUI as being in control of content of this program:

### James Mateer, MD, RDMS (Medical Director-planner & QI Task Force)

Medical Director, Gulfcoast Ultrasound Institute

Milwaukee, WI

No relevant financial relationships to disclose

## Charlotte Derr, MD, RDMS, FACEP (Co-Medical Director-planner & QI Task Force)

Assistant Professor of Emergency Medicine &

Fellowship Director of Emergency Medicine

Ultrasound Fellowship Program

University of South Florida Medical School

Tampa, FL

No relevant financial relationships to disclose

## Andreas Dewitz, MD, RDMS (Member of Advisory Board & QI Task Force Subcommittee)

Associate Professor of Emergency Medicine

Vice Chair of Ultrasound Education

**Boston Medical Center** 

Boston, MA

No relevant financial relationships to disclose

### Lori Green, BA, RDMS, RDCS, RVT (Program Director-planner, Content Reviewer, QI Task Force)

Gulfcoast Ultrasound Institute, Inc.

St. Petersburg, FL

No relevant financial relationships to disclose

### Trisha Reo, AAS, RDMS, RVT (Program Coordinator-planner, Content Reviewer, QI Task Force)

Gulfcoast Ultrasound Institute, Inc.

St. Petersburg, FL

No relevant financial relationships to disclose

#### **HANDS-ON INSTRUCTORS:**

At the time of printing all hands-on instructors for this program have signed disclosure forms and have no relevant financial relationships to disclose. A verbal disclosure will be made during opening remarks. All scanning sessions are monitored by the program director and/or the program manager to ensure education objectives are met and no commercial bias occur.

#### **Content:**

All content for this CME activity were reviewed and approved by member(s) of the GUI staff to determine content validity and ensure that no conflicts of interest exist prior to final course material compilation and printing.

Reviewed & approved:

Lori Green BA, RDMS, RDCS, RVT

Trísha Reo AAS, RDMS, RVT



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# Welcome!!

The entire staff at Gulfcoast Ultrasound Institute would like to welcome you to our educational facility.

Our goal is to provide the highest quality continuing education possible in a relaxed and personal atmosphere. The content of each program has been carefully planned to provide you with the information needed to obtain a firm foundation to begin gaining the experience to perform and/or interpret ultrasound examinations in the specialty of your choice. The program will be structured with lectures in the morning and hands-on sessions during the afternoon to allow more individualized attention the program participants will be divided into groups for the hands-on workshops based on your experience level and type of equipment you work with.

To help you get the most out of this program we would like to make the following recommendations:

- 1. Attend the lectures and scheduled hands-on sessions.
- 2. When you are not involved in a scheduled afternoon session, take advantage of the SUPPLEMENTAL SCANNING WORKSHOP or check out a video tape from our library to watch on one of the review stations located in the break room.
- 3. If you do not understand a particular concept, ASK FOR HELP!
- 4. Study your course workbook during the evening.
- 5. Remember excellence is not achieved overnight. Becoming proficient in any ultrasound specialty requires the commitment to continually study and perform multiple (at least 100) exams before an initial level of confidence is achieved. The AIUM guidelines suggest competency for interpretation requires a minimum of 500 exams per specialty.
- 6. Begin scanning immediately upon return to the ultrasound departments even if it's on a volunteer. We recommend scanning/interpretations under supervised conditions until an accepted level of proficiency has been obtained.

All of our instructors, guest speakers and office staff are here to serve you! If you have any questions of any kind, please do not hesitate to ask.



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# Gulfcoast Ultrasound Institute EQUIPMENT RECOMMENDATIONS

Since 1985, Gulfcoast Ultrasound Institute has taken great pride in our ability to provide quality continuing education programs while remaining unbiased regarding the recommendation of ultrasound equipment.

Our programs are supported by most of the major equipment manufactures by providing their systems for use during the hands-on sessions. These companies have learned their products will be used and demonstrated to the best of our abilities in an educational setting and that no selling or promotion is done on our premises.

We realize that some of the course participants may currently be in the process of evaluating equipment for purchase and would like the opinions of our staff to determine the "best" system for your department. Everyone has a "favorite" ultrasound system (usually because it is the one they have worked with the most and are comfortable with) however, Gulfcoast Ultrasound must take an unbiased position in regards to equipment recommendations.

If you are currently evaluating equipment for purchase we suggest you invite the equipment manufacturers to your facility for a private demonstration to determine image quality, ease of use, over-all capabilities etc. on an individual basis.

Thank you!

Lorí Green BA, RDMS, RDCS, RVT

Lori Green, BA, RDMS, RDCS, RVT Program Director