Introduction & Advanced Emergency Medicine Ultrasound

February 10 – 14, 2025

Attention! This course includes the following pre-course online videos: "Imaging Fundamentals" by Lori Green, BA, RDMS, RDCS, RVT and "Abdominal Scan Fundamentals" by Trisha Reo, AAS, RDMS, RVT. Login to your account at gcus.com and navigate to "My Activities" to complete this video **prior** to the first day of this course.

Monday, February 10, 2025				
7:45	Welcome and Continental Breakfast			
7:55	Interactive Polling Session			
8:05	Extended Focused Assessment with Sonography in Trauma (E-FAST)	Bret Nelson, MD, RDMS, FACEP		
9:00	Stretch Break			
9:05	Ultrasound Evaluation of Abdominal Aortic Aneurysm & Case Studies	James Mateer, MD, RDMS		
9:35	Point-of-Care Ultrasound Evaluation of Biliary & Renal Colic			
10:30	Break out Groups			
10:40	Main Lecture Room	Scan Lab		
	US-Guided Central & Peripheral Vascular Access Bret Nelson, MD, RDMS, FACEP	Hands-On Scanning Standardized Patient Models: E-FAST & Focused Aorta, Renal & Biliary		
11:40	Switch Groups			
11:45	Main Lecture Room	Scan Lab		
	US-Guided Central & Peripheral Vascular Access Bret Nelson, MD, RDMS, FACEP	Hands-On Scanning Standardized Patient Models: E-FAST & Focused Aorta, Renal & Biliary		
12:45	Lunch – Optional Scan on Your Own with Phantoms for System Optimization and Needle Guidance			
1:45	Main Lecture Room	Scan Lab		
	Focused 2D Cardiac Ultrasound James Mateer, MD, RDMS	Hands-On Scanning Standardized Patient Models: US-Guided Central & Peripheral Vascular Access		
3:15	Break & Switch Groups			
3:30	Main Lecture Room	Scan Lab		
	Focused 2D Cardiac Ultrasound James Mateer, MD, RDMS	Hands-On Scanning Standardized Patient Models: US-Guided Central & Peripheral Vascular Access		
5:00	Adjourn			

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Tuesday, February 11, 2025					
7:30	Continental Breakfast				
7:45	General Session: Ultrasound Guided Procedures		Bret Nelson, MD, RDMS, FACEP		
8:30	Break Out Groups				
8:40	Main Lecture Room	Scan Lab			
	Rapid Ultrasound for Shock & Hypotension Ultrasound Assessment for DVT Bret Nelson, MD, RDMS, FACEP	Hands-On Scanning Standardized Patient Models: Focused Cardiac & E-FAST			
10:20	Break & Switch Groups				
10:30	Main Lecture Room		Scan Lab		
	Rapid Ultrasound for Shock & Hypotension Ultrasound Assessment for DVT Bret Nelson, MD, RDMS, FACEP	Hands-On Scanning Standardized Patient Models Focused Cardiac & E-FAST			
11:50	Adjourn for Lunch				
12:15	Optional Lunch Lecture: Soft Tissue & Musculoskeletal Ultrasound Application	S	Andrew Laudenbach, MD		
1:00	Break Out Groups				
1:10	Main Lecture Room	Scan Lab			
	Ocular, Airway & Thoracic Ultrasound Andrew Laudenbach, MD	Hands-On Scanning Standardized Patient Models: RUSH/DVT USG Procedures & MSK/Soft Tissue			
	Emergency Medicine & Critical Care Ultrasound Case Studies Andrew Laudenbach, MD				
3:00	Break & Switch Groups				
3:10	Main Lecture Room		Scan Lab		
	Ocular, Airway & Thoracic Ultrasound Andrew Laudenbach, MD	Hands-On Scanning Standardized Patient Models: RUSH/DVT USG Procedures & MSK/Soft Tissue			
	Emergency Medicine & Critical Care Ultrasound Case Studies Andrew Laudenbach, MD				
5:00	Adjourn				

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Wednesda	ay, February 12, 2025		
8:00	Continental Breakfast		
8:10	Break Out Groups		
8:15	Main Lecture Room	Scan Lab	
	ABC's: Sonography in Sepsis with Case Studies	Hands-On Scanning Standardized Patient Models: Ocular, Airway & Thoracic US Applications Focused Cardiac	
9:45	Switch groups		
9:55	Main Lecture Room	Scan Lab	
	ABC's: Sonography in Sepsis with Case Studies	Hands-On Scanning Standardized Patient Models: Ocular, Airway & Thoracic US Applications Focused Cardiac	
11:25	Interactive Post Polling with Discussion		
11:35	Lunch		
12:30	Gyn Anatomy & Scan Protocols	James Mateer, MD, RDMS	
1:15	Break Out Groups		
1:20	Main Lecture Room	Scan Lab	
	US Evaluation of Intrauterine & Ectopic Pregnancy James Mateer, MD, RDMS	Hands-On Scanning Standardized Patient Models: Transabdominal & Endovaginal Gyn	
3:05	Switch Groups		
3:15	Main Lecture Room	Scan Lab	
	US Evaluation of Intrauterine & Ectopic Pregnancy James Mateer, MD, RDMS	Hands-On Scanning Standardized Patient Models: Transabdominal & Endovaginal Gyn	
5:00	Adjourn		

Attention! This course includes the following post-course online training video (non-CME): "PID & Masses" by James Mateer, MD, RDMS. Following the completion of this course, login to your account at gcus.com and navigate to "My Activities" to complete this video within 2 weeks post-course. Access to this online video is limited to 2 weeks, beginning the day after the course ends.

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Thursday, February 13, 2025			
7:30	Welcome and Continental Breakfast		
7:40	Interactive Polling Session		
7:50	General Session:	Andrew Laudenbach, MD	
	Advanced Ultrasound Evaluation of Shock		
8:55	Break out Groups		
9:00	Main Lecture Room	Scan Lab	
	MI & Complications	Hands-On Scanning:	
	Andrea Dreyfuss, MD	Advanced RUSH with DVT	
10:00	Break & Switch Groups		
10:15	MI & Complications	Hands-On Scanning:	
10.15	Andrea Dreyfuss, MD	Advanced RUSH with DVT	
11:15	Lunch		
	Main Lecture Room	Scan Lab	
12:15	Intro to Right Heart & Echo Mimics	Hands-On Scanning:	
	Andrew Laudenbach, MD	Focused Cardiac	
1:15	Switch Groups		
1:20	Intro to Right Heart & Echo Mimics	Hands-On Scanning:	
	Andrew Laudenbach, MD	Focused Cardiac	
2:20	Break & Switch Groups		
	Interactive Emergency Medicine & Critical Care	Hands-On Scanning:	
2:30	Ultrasound Case Studies	Focused Cardiac & POCUS Choice	
	Andreas Dewitz, MD, RDMS		
3:30	Break & Switch Groups		
3:45	Interactive Emergency Medicine & Critical Care	Hands-On Scanning:	
	Ultrasound Case Studies	Focused Cardiac & POCUS Choice	
	Andreas Dewitz, MD, RDMS		
4:45	Adjourn		

Friday, February 14, 2025			
7:30	Continental Breakfast		
7:45	General Session: Fluid Responsiveness in the	Andrea Dreyfuss, MD	
	Critically III		
8:45	Break – Split into Emergency Medicine & Critical Care Tracks		
9:00	Emergency Medicine Nerve Blocks	Andreas Dewitz, MD, RDMS	
10:30	Ultrasound Evaluation of the Acute Scrotum	James Mateer, MD, RDMS	
11:15	All Groups Return to Main Lecture Room		
11:30	Interactive Post-Polling with Discussion		
11:45	Lunch		
12:15	Lunch Lecture: Emergency Medicine POCUS	Presented by: USF Emergency Medicine	
	Case Presentations	Residents & Fellows	
1:00	Hands-On Scanning Sessions: Emergency Medicine Nerve Blocks, POCUS Choice PLUS Peel-		
	off Station for Scrotal US		
4:00	Adjourn		

^{**} This is a tentative course itinerary. Lecture faculty, times and dates may be subject to change. Times listed are Eastern Time (ET).

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

Introduction to Emergency Medicine Ultrasound

The Gulfcoast Ultrasound Institute designates this live educational activity for a maximum of 24.0 *AMA* PRA Category 1 $Credits^{TM}$. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 24.0 Medical Knowledge MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Approved by the American College of Emergency Physicians (ACEP) for a maximum of 24.0 hour(s) of Category I credit.

The Gulfcoast Ultrasound Institute designates an additional 1.25 AMA PRA Category 1 Credits™ for the enduring educational activity "Imaging Fundamentals" and an additional 1.00 AMA PRA Category 1 Credits™ for the enduring educational activity "Abdominal Scanning Fundamentals". Physicians should claim only credit commensurate with the extent of their participation in the educational activity.

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.

Advanced Emergency Medicine Ultrasound

The Gulfcoast Ultrasound Institute designates this live educational activity for a maximum of 16.0 *AMA PRA Category 1 Credits*TM. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 16.0 Medical Knowledge MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Approved by the American College of Emergency Physicians (ACEP) for a maximum of 16.0 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 the participant's knowledge to better perform and/or interpret emergency medicine and critical care ultrasound examinations.
- 2. Increase competence to incorporate protocols, scan techniques, and interpretation criteria into clinical practice.
- 3. State the basic fundamentals of ultrasound physics and demonstrate appropriate optimization for system controls.
- 4. Demonstrate scan protocols for focused evaluation of the trauma patient (E-FAST exam), pneumothorax, abdomen, aorta/IVC, DVT, ocular & airway/thoracic, soft tissue and musculoskeletal applications, adult heart, and female pelvis.
- 5. State an algorithm for uses of bedside ultrasound during cardiac arrest, sepsis, shock, and hypotension.
- 6. Demonstrate image orientation, transducer preparation, and scan protocols for performing use of ultrasound guidance for central & peripheral vascular access, pericardiocentesis, paracentesis, thoracentesis, hemothorax, lumbar puncture, and joint aspiration.
- 7. Differentiate normal/abnormal image characteristics of the abdomen, female pelvis, first trimester OB, and ectopic pregnancy.
- 8. Identify sonographic characteristics associated with abdominal sepsis involving the hepatobiliary, renal, and GI systems.
- 9. Identify the normal anatomy and function of the right heart.
- 10. Recognize and quantify tricuspid valve and pulmonic valve disease.
- 11. Recognize the sonographic characteristics of pulmonary emboli and common echocardiographic mimics.
- 12. Evaluate fluid responsiveness in the critically ill patient.
- 13. Recognize the sonographic appearance of individual nerves and list the advantages provided when ultrasound is used for performing regional nerve blocks.
- 14. Perform testicular ultrasound and recognize acute abnormalities.

While offering CME credit hours this activity is not intended to provide extensive training or certification for performance of or interpretation of Ultrasound Examinations. We recommend working under supervised conditions until an acceptable level of proficiency has been achieved.

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



Disclosure of Presence/Absence of Relevant Financial Relationships with Ineligible Companies for Individuals in Control of Content

Gulfcoast Ultrasound Institute, Inc. endorses the Standards for Integrity and Independence in Accredited Continuing Education of the Accreditation Council for Continuing Medical Education (ACCME) for all activities. All individuals in control of content are required to disclose any financial relationships with ACCME defined ineligible companies, regardless of the amount. Full disclosure of the presence or absence of relevant financial relationships with ineligible companies is outlined in the course materials and will be verbally disclosed to all learners during opening remarks.

FACULTY:

James Mateer, MD, RDMS

Clinical Professor, Emergency Medicine Medical College of Wisconsin Milwaukee, WI No relevant financial relationships to disclose

Andreas Dewitz, MD, RDMS

Clinical Professor of Emergency Medicine
Clinical Director of POCUS Education, Solomont
Simulation Center
Department of Emergency Medicine
Boston Medical Center
Boston, MA
No relevant financial relationships to disclose

Andrew Laudenbach, MD

Ultrasound Fellowship Director Clinical Informaticist Associate Professor of Emergency Medicine Department of Emergency Medicine Hennepin Healthcare Minneapolis, MN No relevant financial relationships to disclose

Bret Nelson, MD, RDMS, FACEP

Assistant Professor of Emergency Medicine
Director of Emergency Ultrasound
Department of Emergency Ultrasound
Mount Sinai School of Medicine
Mount Sinai Medical Center
New York, NY
No relevant financial relationships to disclose

Andrea Dreyfuss, MD

Associate Professor of Emergency Medicine Department of Emergency Medicine University of Minnesota Medical School Ultrasound Fellowship Director Hennepin County Medical Center Minneapolis, MN No relevant financial relationships to disclose

Disclosure of Presence/Absence of Relevant Financial Relationships with Ineligible Companies for Individuals in Control of Content

In addition to the faculty listed on the previous page, 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, FPD-AEMUS (Co-Medical Director-planner & QI Task Force)

Professor of Emergency Medicine

Fellowship Director of Advanced Emergency Medicine Ultrasound Fellowship Program

University of South Florida Morsani College of Medicine

Tampa, FL

No relevant financial relationships to disclose

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

Clinical Professor of Emergency Medicine

Clinical Director of POCUS Education, Solomont Simulation Center

Department of Emergency Medicine

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

Mark Swanson, RDMS, RVT (Senior Clinical Instructor/Product Specialist-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 occurs.

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:

Lorí Green BA, RDMS, RDCS, RVT Trísha Reo AAS, RDMS, RVT Mark Swanson, RDMS, RVT



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 DVD from our library.
- 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 questions of any kind, please do not hesitate to ask.

Gulfcoast Ultrasound Institute EQUIPMENT RECOMMENDATIONS

Since 1985, 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