ADVANCED HEALTH EDUCATION CENTER®

EDUCATION ▲ STAFFING ▲ CONSULTING

Intro to ABD and OB/GYN Ultrasound

48 AMA PRA Category 1

Faculty: Shawn Shanmuganathan BS, RDMS, RVT and Chevaun Fletcher, BS, RDMS

Target Audience: This activity is designed for physicians, sonographers, nurses, and other healthcare professionals interested in ultrasound imaging.

Disclosure Summary: All relevant financial relationships of faculty and planners have been disclosed and mitigated. Full disclosure information is provided within this syllabus.

Advanced Health Education Center (AHEC) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

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Welcome to Advanced Health Education Center

As the Senior Vice President, I would like to thank you for choosing Advanced Health Education Center's (AHEC) for your Ultrasound training course. The faculty, staff, and fellow students join me in welcoming you. We will make reasonable efforts to ensure that your time with us is enjoyable as well as educational. These courses are designed to help you develop the skills and acquire the information necessary to perform at a high level of competency in sonography. There are various areas in which you will be evaluated during the course to ensure your learning and success.

AHEC has been a leading provider of continuing education for healthcare professionals in imaging sciences since 1988. Our mission is to provide you with evidence-based education and training that will increase your knowledge, enhance your competency, and improve patient care. Since receiving ACCME Accreditation in 1998, we have assisted in the development of ultrasound skills for physicians, sonographers, nurses, midwives and other healthcare professionals.

The registration packet is designed to provide students with general information regarding AHEC, course information, CME credit, and disclosure of relevant financial interest. We wish you well in your professional advancements and are here to assist you in pursing your educational goals. Please contact us if we can be of further assistance to you at 1-800-239-1361.

Congratulations and good luck pursuing your professional goals!

Best,



Kelli Reddix, MBA, BAAS, LVN
Senior Vice President
Phone 1-800-239-1361 • 8502 Tybor, Houston, Tx, 77074

Intro to ABD and OB/GYN Ultrasound

Faculty: Chevaun Fletcher, BS, RDMS
Faculty: Shawn Shanmuganathan, BS, RDMS, RVT

Course Overview

Event Location: Advanced Health Education Center
8502 Tybor Drive
Houston, Texas, 77074
Credit: 48 AMA PRA Category 1™
Time: 8:00 am – 5:00 pm
Instructor: Shawn Shanmuganathan BS, RDMS, RVT and Chevaun Fletcher, BS, RDMS

Abdominal Ultrasound Course Description:

The three-day abdominal ultrasound program is a systematic presentation of abdominal scanning using an integrated teaching approach of lecture, assigned reading, testing, demonstration, and clinical scanning of models. Didactic training is reinforced through clinical laboratory experience.
The focus of this three-day course is to provide participants with the confidence necessary to complete an abdominal ultrasound based on AIUM protocols. The course covers the basic protocols involved in an examination and general use of the ultrasound system. Normal anatomy of the liver, gall bladder, kidneys, spleen, abdominal vessels, and pancreas will be discussed. Also included are soft tissue applications and abdominal doppler. The participants will gain experience through lecture and faculty supervised hands on scanning. This format allows each participant ample opportunity to gain the knowledge and confidence needed to independently perform a basic abdominal ultrasound.

Faculty: Shawn Shanmuganathan - No relevant financial relationships to disclose.
Faculty: Chevaun Fletcher – No relevant financial relationships to disclose.

Abdominal Ultrasound Course Objectives:

At the completion of this course, the learner will be able to:

- Utilize the principles of instrumentation to set up ultrasound equipment for obtaining diagnostic images according to AIUM guidelines.
- Recognize and identify the organ systems in the abdomen on an ultrasound image.
- Perform abdominal Doppler using Color and Pulsed Wave Doppler
- Understand and identify pathological variants.
- Follow the sequence of an abdominal ultrasound procedure from the beginning to its conclusion.
- Recognize and identify the thyroid, scrotum, and appendix

Abdominal Ultrasound Course Topics:

- Ultrasound Physics and Instrumentation
- Upper Abdominal Organ Systems Anatomy and Vasculature
- Evaluation and Image Review of Normal vs. Abnormal Studies
- Scan Techniques and Protocols for Image Acquisition of:
- Prevertebral Vessels
- Liver and Biliary System
- Pancreas, Spleen and Kidney
- Thyroid, Scrotum and Appendix
- Abdominal Doppler

Intro to ABD and OB/GYN Ultrasound

Faculty: Chevaun Fletcher, BS, RDMS
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OB/GYN Course Description:

The three-day ultrasound program is a systematic presentation of obstetric and gynecological scanning using an integrated teaching approach of lecture, assigned reading, testing, demonstration, and clinical scanning of models. Didactic training is reinforced through clinical laboratory experience.

Boost your confidence by attending our three-day OB/GYN ultrasound course that is focused on the ultrasound examination and evaluation of the female pelvis. Each day begins with lecture, including physics, instrumentation, female anatomy, fetal biometry. Case studies will be presented to familiarize the participants with normal and abnormal findings.

Participants will finish the day in our on-site scanning lab, where they will benefit from live models and hands on experience supervised by a faculty member. The course will give participants the skills and knowledge necessary to complete and understand an ultrasound using transabdominal and endovaginal protocols according to AIUM guidelines.

Faculty: Debbie Robertson, BS, RDMS - No relevant financial relationships to disclose.

OB/GYN Course Objectives:

At the completion of this course, the learner will be able to:

- Utilize the principles of instrumentation to obtain diagnostic images
- Recognize normal and abnormal pelvic anatomy
- Identify the difference in techniques related to transabdominal and endovaginal pelvic scanning techniques
- Identify basic fetal anatomy and biophysical profile
- Identify basic fetal anomalies and their ultrasound appearance
- Apply appropriate measurement techniques in transabdominal and endovaginal scanning
- Identify ultrasound findings in evaluating ectopic pregnancy

OB/GYN Course Topics:

- Introduction to ultrasound physics and instrumentation
- Pelvic anatomy transabdominal and endovaginal
- Fetal anatomy and biometry
- AIUM Scan protocols and patient preparation
- Placenta and fetal Doppler
- Fetal anomalies
- Case studies

Intro to ABD and OB/GYN Ultrasound

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Abdominal Course Schedule

Lecture 8am-12noon | Lunch 12-1pm | Scan Lab 1pm-5pm

Day 1 Lecture
8:00am -12:00pm

- Physics and Instrumentation
- Abdominal Vessels
- Liver
- Doppler
- Gallbladder

1:00pm-5:00pm

- Hands-on Demonstration/Participation with live models

Day 2 Lecture
8:00am -12:00pm

- Pancreas
- Renal
- Doppler
- Spleen

1:00pm-5:00pm

- Hands-on Demonstration/Participation with live models

Day 3 Lecture
8:00am -12:00pm

- Thyroid
- Small Parts

1:00pm-5:00pm

- Hands-on Demonstration/Participation with live models

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OB/GYN Course Schedule

Lecture 8am-12 noon | Lunch 12-1pm | Scan Lab 1pm-5pm

Day One

8:00am -12:00pm

- Introduction
- Physics and Instrumentation
- Basic Pelvic Ultrasound
- Pelvic Orientation and Imaging for transabdominal and endovaginal
- Normal 1st Trimester Ultrasound
- Imaging Uterine and Ovarian pathology
- Sonohysterography Video
- GYN Case Studies

1:00pm-5:00pm

- Hands-on Demonstration/Participation with live models for Gynecological Scanning

Day Two

8:00am-12:00pm

- Abnormal 1st Trimester Ultrasound
- Multiple Gestations
- OB 1 Case Studies
- Ectopic Pregnancy
- 2nd/3rd Trimester Biometry

1:00pm-5:00pm

- Hands-on Demonstration/Participation with live models for 1st Trimester Scanning

Day Three

8:00am-12:00pm

- Review 2/3 Biometry
- OB Normal and Abnormal Anatomy
- Placenta
- BPP, IUGR, Cord Doppler
- Balance/3D

1:00pm-5:00pm

- Hands-on Demonstration/Participation with live models for 2nd and 3rd Trimester Scanning

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Abdominal Ultrasound Skills Checklist

The participant demonstrates an understanding of the following controls to optimize the image:

Physics and Instrumentation

- ☐ On/Off
- ☐ Output/Power
- ☐ Depth
- ☐ Master Gain
- ☐ TGC/DGC
- ☐ Focal Zones
- ☐ Dynamic Range
- ☐ Presets
- ☐ Calipers
- ☐ Freeze/Cine
- ☐ Color/Power/Pulse Doppler
- ☐ Zoom

The participant identifies and is able to image the following anatomy with measurements where applicable:

- ☐ Long and transverse of left lobe of liver
- ☐ Long and transverse of right lobe of liver
- ☐ Long and transverse right and left kidneys
- ☐ Long and transverse urinary bladder
- ☐ Long and transverse gallbladder
- ☐ Long and transverse pancreas
- ☐ Long and transverse spleen
- ☐ Long and transverse thyroid
- ☐ Common bile duct
- ☐ Portal vein
- ☐ Aorta
- ☐ IVC
- ☐ Thyroid
- ☐ Doppler of abdominal vasculature

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OB/GYN Skills Checklist

The participant demonstrates an understanding of navigating the instrumentation of the machine.

Physics and Instrumentation

- Power Button
- Preset Parameters
- Depth Button
- Calipers
- Measurement calculation
- Cine Loop
- Freeze Button
- Zoom
- Gain Button
- Time Gain Compensation
- M-mode
- Pulse Doppler Settings
- Color Doppler Settings
- Color Power Doppler
- Care of the Transducer
- Quality Assurance

The participant understands the proper techniques for cleaning and care of the transducers.

Be able to scan for GYN both transabdominal and transvaginal.

- Cervix
- Uterus
- Endometrium
- Ovaries
- Fallopian Tubes
- Adnexa

Be able to perform 1st, 2nd, and 3rd, trimester OB Scans

- FHR
- Gestational Sac
- CRL
- Cisterna Magna
- Lateral Ventricle
- Nuchal Fold
- BPD
- Head Circumference
- Abdominal Circumference
- Femur Length
- Four Chamber Heart
- Stomach
- Three Vessel Cord
- Kidneys
- Bladder
- Cord Insertion
- Placenta
- AFI

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CME Credit:

- "The Advanced Health Education Center is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians."
- "The Advanced Health Education Center designates this educational activity for a maximum of 48 hours AMA PRA Category I™. Physician should claim credit commensurate with the extent of their participation in the activity."

AHEC Cancellation and Refund Policy for Skills Courses:

AHEC defines a skills course as a limited enrollment course where a received registration with payment reserves your place in a course (i.e. all Ultrasound courses, Mammography Initial Training and other theory courses). For cancellations received at least two weeks prior to the course date, a refund less a 30% processing fee will be given. Within two weeks of the course, no refund is given, but a tuition credit – less a 30% processing fee – may be applied to a future course. No refunds or tuition credit is given for non-attendance. Facilities may substitute employees by notification to AHEC at least one week in advance.

Disclosure of Relevant Financial Interest for Individuals in Control of Content

As an ACCME-accredited provider, Advanced Health Education Center (AHEC) is committed to ensuring balance, independence, objectivity, and scientific rigor in all of its educational activities.

In accordance with ACCME Standard 3, AHEC requires that all individuals in control of content—including planners, faculty, committee members, and administrative personnel involved in the planning, development, or production of educational activities—disclose all financial relationships with ineligible companies within the past 24 months. A financial relationship is considered relevant if it exists between the individual and an ineligible company whose products or services are related to the content of the educational activity**.**

AHEC has implemented mechanisms to identify, mitigate, and disclose relevant financial relationships to prevent commercial bias in its educational activities. All disclosed relevant financial relationships have been mitigated prior to the commencement of the educational activity.

The individuals listed below are acknowledged by AHEC as having control of the content, planning, development, or administrative support of all educational activities.

- Marilyn Sackett, M. Ed, RT (R), Committee Member
    - AHEC: President
    - No relevant financial interest to disclose

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- Jence Garza, MHA RT(R) - Committee Member
  - AHEC: Chief Executive Officer (CEO)
  - No relevant financial interest to disclose
- Peggy Hoosier, M.Ed RT(R)(M) - Committee Member
  - AHEC: Consultant
  - No relevant financial interest to disclose
- Kelli Reddix, MBA, BAAS, LVN - Program Director
  - AHEC: Senior Vice President
  - No relevant financial interest to disclose
- Nanette Joiner
  - AHEC: Administrative Support
  - No relevant financial interest to disclose
- Chevaun Fletcher, BS, RDMS
  - Ultrasound Faculty
  - No relevant financial interest to disclose
- Jessica Smith, BS, MHA, RDMS
  - Ultrasound Faculty
  - No relevant financial interest to disclose
- Virlene Guzman, RT(R), RDMS, RVT
  - Ultrasound Faculty
  - No relevant financial interest to disclose
- Shawn Shanmuganathan, BS, RDMS, RVT
  - Ultrasound Faculty
  - No relevant financial interest to disclose

Content Validation:

All presentations designated for AMA PRA Category 1™ credit undergo a rigorous review process to ensure content validity. This process includes:

- Curriculum Committee Review: All content is reviewed and approved by members of the curriculum committee for scientific accuracy, balance, and alignment with current evidence-based practices.
- Peer Review: Where applicable, content is subjected to peer review by individuals with appropriate clinical expertise and no relevant financial relationships with ineligible companies.
- Conflict of Interest Assessment: Prior to the advertisement and delivery of the educational activity, all individuals involved in the planning, development, or production of the activity disclose any relevant financial relationships. Any identified conflicts are resolved in accordance with ACCME Standard 3.5.
- Identification of Emerging Topics: New and evolving topics are clearly identified as such within the program to distinguish them from established, evidence-based practices.

This comprehensive approach ensures that all educational content is fair, balanced, and based on the best available evidence, thereby supporting safe and effective patient care.