AUS — ADVANCED ULTRASOUND SYSTEMS — DEFINING THE STANDARD

2024
ULTRASOUND SERVICE TRAINING CATALOG

AAMI Credentials Institute · ACI · CEU PRE-APPROVED

Train with the Industry's Best

- Experienced instructors teaching from an HTM perspective
- CEU Pre-Approved Units
- Custom training programs designed by our experts

nqa. ISO 13485 · MEDICAL DEVICES

ANAB — ANSI National Accreditation Board — ACCREDITED — ISO/IEC 17021-1 — MANAGEMENT SYSTEMS CERTIFICATION BODY

Start today!
Use your smartphone to scan this QR code or call us at 866-620-2831 or
Email: training@advancedultrasound.com

PHANTOMS AND PM KITS
FOR SALE

AUS believes in supporting the HTM professional in every possible way. That is why we stock ultrasound phantoms and sell our clients PM Kits and Phantoms directly.

Our PM Kit includes:

- Phantom CIRS Model:539
- Rigel Safe Test 99 Safety Analyzer
- Atrix Omega Supreme Electronic Vacuum

On Demand Classes

Don't see a system on the Calendar? Just ask. We customize classes to your needs. Here is a list of systems we currently provide systems service training on:

- GE Logiq E9 / Vivid E9
- GE Logiq E10
- GE Voluson E10 / E8 / E6
- GE Voluson S8 / S6
- GE Vivid S5/ S6
- Philips Epiq 5, 7, Elite, CV, CVx
- Philips Sparq
- Philips Affiniti 70/ 50 (prerequisite: Epiq 7)
- Philips iU22/ iE33
- Philips EnVisor/ HD11
- Siemens Acuson S3000/ S2000/ S1000
- Siemens Acuson SC2000
- Siemens Acuson X300/ X150
- Siemens Acuson Antares
- Siemens Sequoia
- Toshiba/Canon Medical TUS-A Series - Aplio 500/ 400/ 300
- Toshiba Medical TUS-SSA Models - Aplio MX/ XG, Xario SSA, Xario XG

Other On Demand Courses Available

- Multi-Vendor Preventative Maintenance
- Ultrasound Applications for Service Engineers
- Managing and Servicing Ultrasound Probes
- Optimize performance of your transducers through proper care and maintenance
- Networking Basics for Ultrasound
- Making a successful transition to in-house support of ultrasound systems
- Reducing ultrasound service costs
- Minimizing repair costs while maximizing the lifecycle of your ultrasound transducers
- Probes and Portables from an HTM professional perspective
- First Look – First response troubleshooting
- How to use the Phantom – Verifying Image Quality
- Accreditation Compliance for Ultrasound
- How to Advance into Imaging Using Ultrasound

Advanced Siemens Sequoia (16 CEU's)

This Advanced Service Training course includes clinical applications training, performing Evidence-Based Quality Assurance and PM's that meet and exceed ACR standards; removal and replacement of electronic and mechanical assemblies, and repair/exchange parts identification. The student leaves with a training manual and flashdrive that provides reference information they will find very useful when they leave the class.

Price: $2200

NEW

Siemens Sequoia Introduction and Overview
- Introduction, Clinical Features
- Physical Design
- Design Features
- Basic Use of Siemens Sequoia

Functional Design & Theory of Operation, Siemens Sequoia
- Typical Boot Sequence
- Software Theory & Design

- Hardware Design and Theory of Operation
  - Front End PCBs
  - Student Lab, Front End Board Removal and Replacement
  - Back End Processor (BEP)
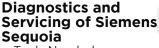 - Student Lab, Access to BEP
  - Power Subsystem
  - User Interface

Diagnostics and Servicing of Siemens Sequoia
- Tools Needed
- Collecting Vital Information
- Service Diagnostics
- Monitor adjustments
- Power Supply Troubleshooting

Preventive Maintenance
- User Maintenance
- Service PMs & Quality Testing

Diagnostic Ultrasound Service Camps (DUSC) (40 CEU's)

Our most popular offering, 5 days' worth of intense, concentrated ultrasound training designed to equip the HTM professional to maintain, diagnose, troubleshoot, and repair ultrasound. No pre-requisite required. Each week contains 'Introduction to Diagnostic Ultrasound Service' the first day and 2 of the following courses for the rest of the week—check calendar for prescribed courses for the week. 8:30 AM to 5:00 PM daily.
Price: $4900

Day 1   Intro. to Diagnostic Ultrasound

Introduction to Ultrasound Transducers and Beamforming
- Types of Probes
- Probe applications

Imaging Modalities
- 2D Imaging
- 3D/4D Imaging
- Harmonic Imaging
- Motion Mode
- Doppler Imaging
- Elastography
- Lab

System Architecture
- Scanner/Front End
- Scan Convertor/Backend Processor
- System Timing and Control
- Power Subsystem
- Full System Block Diagram
- Typical Boot-up Sequence
- Lab

DICOM and Networking
- Theory and Design
- Tools and Troubleshooting
- Lab, Use of K-PACS to Test DICOM

System and Transducer Performance Testing
- Testing Resolution
- Baselining Your System Performance
- Preventive Maintenance
- Rationale for Evidence-Based Quality Assurance
- Tools of the Trade
- System Performance Testing
- Lab, Use of Phantom for Performance Testing and Troubleshooting
- Electrical Leakage Testing
- Visual Inspections
- User Maintenance
- TOE (TE) Probe Testing and Inspection
- Safety

Final Test

Day 2&3
Philips Course

One of these courses will be offered on day 2 and 3 of DUSC week.
- Advanced Philips EPIQ 5 and 7
- Advanced Philips iU22/iE33
- Advanced Siemens Sequoia

See Philips Courses for course syllabus. See Calendar on back page for course dates.

Day 4&5
Course

One of these courses will be offered on day 4 and 5 of DUSC week.
- Advanced GE Logiq E9 and Vivid E9
- Advanced GE Logiq E10
- Advanced GE Voluson E6, E8, and 10
- Advanced Siemens Sequoia

See inidivisual courses for course syllabus. See Calendar on back page for course dates.

Advanced GE Logiq E9 and Vivid E9 (16 CEU's)

This Advanced Service Training course includes clinical applications training, performing Evidence-Based Quality Assurance and PM's that meet and exceed ACR standards; removal and replacement of electronic and mechanical assemblies, and repair/exchange parts identification. The student leaves with a training manual and flashdrive that provides reference information they will find very useful when they leave the class. **Price: $2200**

Logiq E9 Introduction and Overview
- Introduction, Clinical Features
- Physical Design
- Design Features
- Basic Use of Logiq E9

Functional Design & Theory of Operation
- Typical Boot Sequence
- Software Theory & Design
- Hardware Design and Theory of Operation
- Front End PCBs
- Student Lab, Front End Board Removal and Replacement
- Back End Processor (BEP)
- Student Lab, Access to BEP
- Power Subsystem

- Student Lab, Remove and replace main power supply
- User Interface
- Student Lab, Remove and replace Upper Op Panel & Touch Screen

Logiq E9 and Vivid E9 Diagnostics and Servicing
- Tools Needed
- Collecting Vital Information
- Service Diagnostics
- Monitor adjustments
- Adjusting the XY & Z Mechanisms
- Power Supply Troubleshooting
- Student Lab, Logiq E9 Utilities & Diagnostics

Preventive Maintenance
- User Maintenance
- Service PMs & Quality Testing

Vivid E9, Overview & Design Differences
- Clinical & Design Features

- Typical Power On Sequence
- Configuration (Config) Screens
- Network set-up
- DICOM & connectivity

Vivid E9 Design Theory & Hardware Design
- Control Panel
- LCD Monitors
- BEP
- Service & User Maintenance
- Student Lab, Vivid E9 Config & Diagnostics

Final Test

Advanced GE Logiq E10 (16 CEU's)

This Advanced Service Training course includes clinical applications training, performing Evidence-Based Quality Assurance and PM's that meet and exceed ACR standards; removal and replacement of electronic and mechanical assemblies, and repair/exchange parts identification. The student leaves with a training manual and flashdrive that provides reference information they will find very useful when they leave the class. **Price: $2200**

Introduction and overview
- Introduction, clinical features and options
- Physical design of console
- Design features
  - User interface
  - External inputs and outputs
  - External drives and optional equipment
  - Printers and VCRs
  - Probes
  - DICOM & connectivity
- Service access
  - Service licenses
- Basic Use of Logiq E10
  - Control panel layout
  - Touch screen menus
  - Monitor display layout
  - Power on, power off
  - Operator panel movement
  - Monitor adjustments
  - Wheel locks
  - Patient browser

Functional design & theory of operation
- Theory of operation and components
  - Front End

- Student Lab, Front End board removal and replacementBack End
- Student Lab, access to back end components
- Power subsystem
- Student Lab, Remove and replace main power supply
- Timing and control
- User interface
- Student Lab, remove and replace Trackball Assembly
- Software Theory & Design
  - Design changes, software configurations
  - DICOM & connectivity
  - Service configuration
  - Typical Boot Sequence
  - Installing software
- Diagnostics and servicing
  - Collecting vital system information
  - Tools Needed
  - Mechanical adjustments
    - Monitor range of motion
    - Adjusting the XY & Z mechanisms
  - Service desktop
    - Service licenses and SSA Key

- System Information
- Software status
- Hardware configuration
- Hardware status and monitoring
- Network tools
- Hardware diagnostics
- Utilities
- Student Labs, Logiq E10 diagnostics & utilities
- Troubleshooting
  - Simulator mode
  - Image artifacts
  - No boot

Preventive Maintenance
- User maintenance
- Service PMs & quality assurance testing

Final Test

Advanced GE Voluson E6, E8, and 10 (16 CEU's)

This Advanced Service Training course includes clinical applications training, performing Evidence-Based Quality Assurance and PM's that meet and exceed ACR standards; removal and replacement of electronic and mechanical assemblies, and repair/exchange parts identification. The student leaves with a training manual and flashdrive that provides reference information they will find very useful when they leave the class.
Price: $2200

Voluson E6, E8, E10, Introduction and Overview
- Introduction, Clinical Features
- Physical Design
- Design Features
- Basic Use of Voluson E6, E8, E10

Functional Design & Theory of Operation, Voluson E6, E8, E10
- Typical Boot Sequence
- Software Theory & Design
- Hardware Design and Theory of Operation
  - Front End PCBs
  - Student Lab, Front End Board Removal and Replacement
  - Back End Processor (BEP)
  - Student Lab, Access to BEP
  - Power Subsystem
  - Student Lab, Remove and replace main power supply

- User Interface
- Student Lab, Remove and replace Upper Op Panel & Touch ScreenDiagnostics and Servicing of

Voluson E6, E8, E10
- Tools Needed
- Collecting Vital Information
- Service Diagnostics
- Monitor adjustments
- Adjusting the XY & Z Mechanisms
- Power Supply Troubleshooting
- Student Lab, Voluson E6, E8, E10 Utilities & Diagnostics

Preventive Maintenance
- User Maintenance
- Service PMs & Quality Testing

Vivid E9, Overview & Design Differences
- Clinical & Design Features
- Typical Power On Sequence

- Configuration (Config) Screens

Design Theory & Hardware Design of Vivid E9
- Control Panel
- LCD Monitors
- BEP
- Service & User Maintenance
- Student Lab, Vivid E9 Config & Diagnostics

Final Test

Advanced Philips EPIQ 5, 7, Elite, CV, CVx (16 CEU's)

Presents the design and theory of the various Epiq ultrasound systems. Includes software and hardware theory, use of diagnostics procedures for troubleshooting, PM procedures and hands-on labs to reinforce and apply taught skills. Final test and course evaluation. **Price: $2200**

Overview of Design
- Clinical and Design Features
- Imaging Features
- Clinical Options
- Connectivity
- Transducers
- Peripherals
- User Interface
- Student Lab, User Interface

Hardware Design of Epiq platform
- System Block Diagrams & Theory of Operation
- Front End/Acquisition Subsystem
- Back End (E-box) Subsystem
- Timing and Control Subsystem
- Power Subsystem
- User Interface
- Software Design

Diagnostics and Troubleshooting
- Epiq Diagnostic access
- Service Diagnostics
- Minimal Test Environment
- Getting a Password
- Network Configuration
- Touch Screen Calibration
- Troubleshooting Boot-up, Power Supply and DisplayPort Problems
- LEDs and Test Points

Preventive Maintenance and Quality Performance Testing
- User Maintenance
- Service Maintenance

Final Test

Advanced Philips iU22/iE33 (16 CEU's)

Presents the design and theory of the various iU22/iE33 cart levels. Includes software and hardware theory, use of diagnostics procedures for troubleshooting, PM procedures and hands-on labs to reinforce and apply taught skills. Final test and course evaluation. **Price: $2200**

Design Practices of Philips Ultrasound
- Technology Acquisition and Convergence
- Design Methods for iU22/iE33 Project

Overview of Design
- Clinical Features
- Design Features and Options
    - Transducers
    - User Interfaces
    - Lab, use of User Interfaces on iU22 and iE33

Functional Design & Theory of Operation
- Block Diagrams
- Acquisition Subsystem
- Platform Subsystems
- Power Subsystem

Software Architecture, Troubleshooting and Maintenance
- Acquisition Subsystem
- Power Subsystem
- Disk Bay Enclosure
- Platform Card Cage
- System Software
- Service Passwords

DICOM and Networking
- Theory and Design
- Tools and troubleshooting

Software Back-up and Installation
- Software Back-up
- Loading Software

User Maintenance
- Filters
- Probe Inspection
- Proper care and maintenance of TE probes 1.
- Back-ups

Troubleshooting and Maintenance
- Acquisition Subsystem
- Power Subsystem
- Disk Bay Enclosure
- Platform Card Cage
- System Software
- Service Passwords

Preventive Maintenance
Final Test

Advanced Toshiba/Canon Medical TUS-A Series - Aplio 500/ 400/ 300 (16 CEU's)

This Advanced Service Training course presents the design and theory of the Aplio series models. Includes software and hardware theory, use of diagnostics procedures for troubleshooting, PM procedures and hands-on labs to reinforce and apply taught skills. Final test and course evaluation. **Price: $2200**

Aplio A500 Clinical and Design Features
- History of 3 TUS-A Series systems
- Clinical Overview
- Design Features
- Physical Design
- Transducers
- Software Options
- User Interface

Operating the TUS-A System
- Upper and Lower Panels
- Using the Touch Screen (TCS)

Student Lab, User Interface Hardware Design of TUS-A Series
- Comparison to SSA Series Design
- Front End Subsystem
- Back End Subsystem
- Student Lab, Access to Card Cage
- Power Subsystem
- User Interface
- Timing and Control Subsystem
- System Block Diagram

Diagnostics and Troubleshooting
- Precautions
- Service Menu
- DICOM Test Utilities
- Error Logs
- Troubleshooting Power Supplies
- Troubleshooting Boot-up Problems
- Front Panel Test

User and Service Maintenance
- Service Preventive Maintenance Tasks
- Backup and Restore
- Vital Information
- Database Rebuild
- Front End Calibration

Service Software and Configuration
- Password(s)
- Network Settings
- Printer Settings
- User Function Configuration

Disassembly and Replacement of Parts
- Covers
- Removing Hard Drives
- Removing LCD Display
- Removing Control Panels and Palm Switch Assembly
- Removing Power Supplies
- DVD Replacement
- Board Replacement
- Touch Screen Calibration
- ATX Replacement

Final Test

Advanced Toshiba TUS-SSA Models (16 CEU's)

This Advanced Service Training course presents the design and theory of the Toshiba SSA models. Includes software and hardware theory, use of diagnostics procedures for troubleshooting, PM procedures and hands-on labs to reinforce and apply taught skills. Final test and course evaluation. **Price: $2200**

Clinical Features/Overview of Design
- Aplio XG SSA-790A
- Aplio MX SSA-780A
- Xario SSA-660A V1 to V4
- Xario SSA-660A V6 (V5+)
- Xario XG SSA-680A

Operating the SSA Systems
- Control panels
- Using the Touch Screen (TCS)

Design Theory and Hardware
- General block diagram
- Front end subsystem
- Student Lab, Locate Aplio XG PWBs
- Student Lab, Remove and Replace TI
- Backend design
- Power Subsystem
- Student Lab, Remove and Replace Aplio XG PSA & PSD
- Student Lab, Remove and Replace Aplio MX/ Xario PSD
- User Interface

- Student Labs, Remove and Replace Control Panels
- Timing and Control Subsystem
- Service Software
- Student Lab, Remove and Replace Hard Drive
- System Configuration

Diagnostics and Troubleshooting
- Imaging Signal Paths
- Test Tools
- Power Supply Troubleshooting

User and Service Maintenance
- User Maintenance
- Service Preventive Maintenance Tasks

Final Test

Customized 'House Call' Training

We bring System Service Training to your facility. We will customize a training program to empower your employees through classes that cover all their ultrasound needs.

Call for details.

Complete Care Loyalty Program

Let AUS become your first choice for ultrasound parts and become a member of our Complete Care Loyalty Program.

Our program members enjoy:

- Priority parts and probes
- 6-month warranty (parts)
- An online portal with personalized live support, order assistance
- Free priority tech support 24/7 with parts identification assistance
- Hero kits available, ask for details
- Earn 2-day ultrasound course with a monthly spend of $10,000+ (All AUS products and services qualify)

Empower Program

The AUS Empower Program assists you to develop a plan to transform your current imaging engineering staff to be fully trained on ultrasound service in three to five years. After an assessment of current skillsets, a customized plan is prescribed with on-site and classroom training delivered by AUS. It is designed as a partnership with our clients to train and mentor their personnel to be able to deliver high-level service on ultrasound equipment. The program includes ongoing priority tech support and parts.

AAMI CEUs

Our courses are taught by qualified, certified instructors with decades of ultrasound experience. Our system service courses are pre-approved by AAMI's ACI accreditation program worth 1 unit per hour of instruction of Continuing Education Units.

AAMI Credentials Institute
ACI
CEU PRE-APPROVED

AVAILABLE DISCOUNT PROGRAMS

BOGO

Buy one course at full price and receive ½ off your next course (whichever course is lesser in value will receive the ½ off discount).

New Student Discount

15% discount for students attending a course on our official Training Calendar and are new to AUS's Training Program.
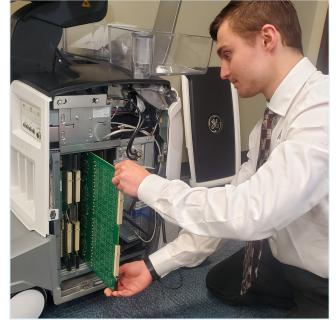
Veterans/Active Duty Military Discount

25% off any course for students attending a course on our official Training Calendar who are Veterans, Active Military, or who are employees of a military hospital or clinic.

Travel Package

If your employer has a training budget but no travel budget, don't worry. AUS offers a travel package that will include your airfare and hotel accommodations. Terms and conditions: Does not include ground travel; Not for international travel only; Must book one month in advance; Prepayment required upon booking class; Not valid with any other offer; Non-transferable; Cancellation fee of 35% if cancelled less than 3 days before the first day of class for any reason.

Learn more about our training programs! Scan this QR code with your smartphone, call us at 866-620-2831, or email training@advancedultrasound.com

AUS 2024 SERVICE COURSES

Feb 26 - Mar 1 Diagnostic Ultrasound Service Camp
Monday-Friday 8:00 AM to 5:00 PM

February 26
Introduction to Diagnostic Ultrasound Service

February 27-28
Advanced Philips Epiq 5 / 7 / CVx

February 29 - March 1
Advanced GE Logiq E10

Mar 11 - 15 Diagnostic Ultrasound Service Camp
Monday-Friday 8:00 AM to 5:00 PM

March 11
Introduction to Diagnostic Ultrasound Service

March 12 - 13
Advanced Philips iU22 / iE33

March 14 - 15
Advanced GE Logiq E9 / Vivid E9

Apr 22 - 26 Diagnostic Ultrasound Service Camp
Monday-Friday 8:00 AM to 5:00 PM

April 22
Introduction to Diagnostic Ultrasound Service

April 23 - 24
Advanced Philips Epiq 5 / 7 / CVx

April 25 - 26
Advanced GE Voluson E6 / E8 / E10

May 13 - 17 Diagnostic Ultrasound Service Camp
Monday-Friday 8:00 AM to 5:00 PM

May 13
Introduction to Diagnostic Ultrasound Service

May 14 - 15
Advanced Siemens Sequoia

May 16 - 17
Advanced GE Logiq E10

Jun 10 - 14 Diagnostic Ultrasound Service Camp
Monday-Friday 8:00 AM to 5:00 PM

June 10
Introduction to Diagnostic Ultrasound Service

June 11 - 12
Advanced Philips Epiq 5 / 7 / CVx

June 13 - 14
Advanced GE Logiq E10

Jul 15 - 19 Diagnostic Ultrasound Service Camp
Monday-Friday 8:00 AM to 5:00 PM

July 15
Introduction to Diagnostic Ultrasound Service

July 16 - 17
Advanced Siemens Sequoia

July 18 - 19
Advanced GE Voluson E6 / E8 / E10

Aug 12 - 16 Diagnostic Ultrasound Service Camp
Monday-Friday 8:00 AM to 5:00 PM

August 12
Introduction to Diagnostic Ultrasound Service

August 13 - 14
Advanced Philips iU22 / iE33

August 15 - 16
Advanced GE Logiq E10

Sep 16 - 20 Diagnostic Ultrasound Service Camp
Monday-Friday 8:00 AM to 5:00 PM

September 16
Introduction to Diagnostic Ultrasound Service

September 17 - 18
Advanced Siemens Sequoia

September 19 - 20
Advanced GE Logiq E9 / Vivid E9

Oct 21 - 25 Diagnostic Ultrasound Service Camp
Monday-Friday 8:00 AM to 5:00 PM

October 21
Introduction to Diagnostic Ultrasound Service

October 22 - 23
Advanced Philips Epiq 5 / 7 / CVx

October 24 - 25
Advanced Siemens Sequoia

Nov 18 - 22 Diagnostic Ultrasound Service Camp
Monday-Friday 8:00 AM to 5:00 PM

November 18
Introduction to Diagnostic Ultrasound Service

November 19 - 20
Advanced Philips Epiq 5 / 7 / CVx

November 21 - 22
Advanced GE Logiq E10