

BASIC ECHOCARDIOGRAPHY COURSE FOR CARDIAC SONOGRAPHERS: ENHANCED BLENDED LEARNING (EBL) PROGRAM

JULY - SEPTEMBER 2024

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WELCOME TO OUR TRAINING IN THE NEW NORM

BASIC ECHOCARDIOGRAPHY COURSE FOR CARDIAC SONOGRAPHERS THROUGH ENHANCED BLENDED LEARNING (EBL)

Echocardiography Laboratory and Diagnostics Institute of Asia, Inc. or Echolab.ph offers basic sonography training to those who want to gain basic knowledge in this field and hone their skills in acquiring and processing echocardiographic studies. This special training is for allied medical graduates who wish to broaden their horizons and maximize their potential for professional growth in the field of echosonography. Echolab.ph teaches each student with passion and commitment to providing quality training. Through innovation and dedication of EchoLab.ph faculty, we provide the opportunity to continue learning and growing in the field of echocardiography by adapting to the changing needs of our time. Basic echosonography training is a 3-month in-depth and intensive course on basic echocardiography for cardiac sonographers. Through the COVID pandemic, EchoLab.ph remained committed to improving cardiovascular health and providing quality echo training. We faced the challenges by modifying our Basic Echocardiography Course for Sonographers to an Enhanced Blended Learning (EBL) Program, utilizing technology to maximize student engagement and promote skills acquisition in a safe environment.



We have successfully brought Innovation to Education with our Echo Simulator and modern teaching techniques, which included digitalization and tele-echo integration in our training even before this pandemic. We are now moving on by continuously adapting and innovating through the challenges of the uncertain times.

ENHANCED BLENDED LEARNING (EBL) Our training through EBL is composed of three phases: **Phase I - Online Learning** through theoretical lectures and examinations; **Phase II - Practical Learning** through our state-ofthe-art echosimulator and performance of echo measurements through our echo workstations; and **Phase III - Risk-Assessed Patient Encounter** with performing echo studies. These phases of learning have been carefully developed to balance the need to keep the trainees, EchoLab.ph staff, and patients safe with the need to maintain the quality training needed for sonographers which is essential for good cardiovascular care.

Onsite Learning (Phase II and Phase III) shall be conducted with adherence to safety protocols and measures. The program and assessment may be individualized depending on the student's needs and progress.

ENHANCED BLENDED LEARNING (EBL)

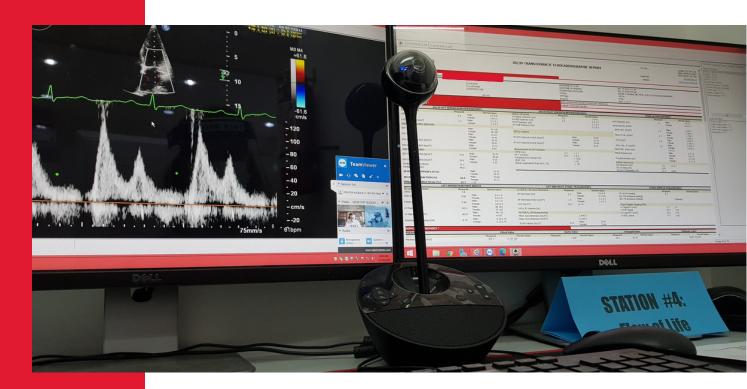




ONLINE LEARNING (PHASE I)

ONLINE LEARNING (Phase I): Know the Theories of Echosonography

The first month of the training is focused on the basic principles of echosonography. This phase is composed of modules covering the fundamentals of echocardiography for cardiac sonographers which include the following topics: cardiac anatomy and physiology, echocardiographic views, and proper rendering and measuring echo parameters in the different cardiac pathologies. This will be done thru **synchronous** and **asynchronous learning**. The synchronous phase of learning will be delivered through lectures conducted online via videoconference using the Zoom platform to be held **6 times a week (Mondays to Saturdays)**, with a minimum of 1 hour/session with online **quizzes** to given every week and **3 online long exams**. The lecture sessions shall simulate live classroom sessions and will allow studentsteacher discussion and interaction.



ONLINE LEARNING (PHASE I)

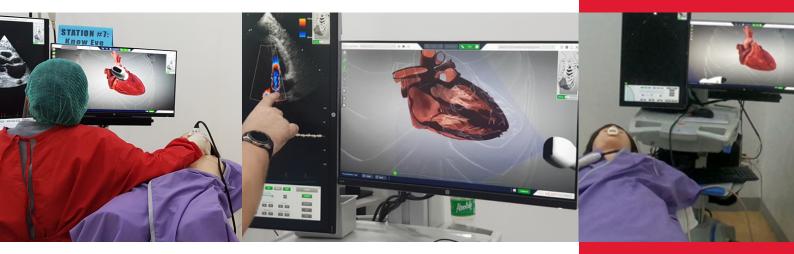
The asynchronous phase

will involve utilization of other learning media such as online reference materials, videos, and pre-recorded lectures which they can access at their own time, place and pace to supplement their learning.

UNDAMENTAL PRINCIPLE OF SOUNDWAVES

PRACTICAL LEARNING WITH THE ECHOSIMULATOR (Phase II): Learn to Scan with Eve

This 2nd phase of the course will be held **ONSITE** at EchoLab.ph where students will be able use our **echo simulator by HeartWorks, Eve**, the first of its kind in the Philippines. Hands-on training with Eve will enhance their theoretical knowledge and provide them with practical knowledge as they are given the opportunity to apply and practice what they have learned online using the echosimulator.



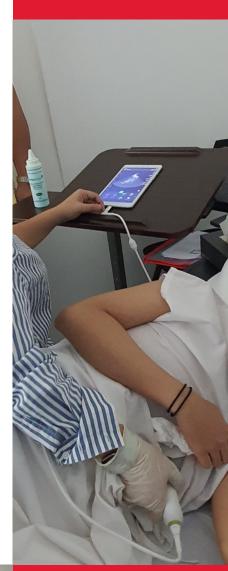
Eve is packed with echo modalities such as Bmode, Color Doppler, spectral doppler and tissue displacement imaging (TDI). With all the functionality of a real echo machine in measuring cardiac structures and functions, students will be able to better understand cardiac anatomy with correlation to echocardiographic images and probe manipulation at different planes, practice their probe handling skills in order to acquire accurate echo images and measurement

RISK-ASSESSED PATIENT ENCOUNTER (Phase III): Scanning with Patient Volunteers

This final phase of the course will allow student to have real patient encounter with "healthy volunteers" to further develop their scanning skills, culminating with a practical examination. For the "healthy volunteers", precautionary infectious control and prevention measures will be taken to include appropriate screening along with individual informed consent.

For this phase of the course, our students will be able to utilize both our innovative **handheld echo device** and our **state-of-the-art large console** echo machine.

The use of hand-held device will allow students to maximize their skills acquisition and allow them to be familiar with **POCUS (Point of Care Ultrasound) Echo.**







Our **state-of-the-art large console** echo machine will be utilized to harness their scanning skills in performing full echo studies.

This final phase of the course, including its duration and schedule, shall take into consideration the individual skills of the students. It may also overlap with Phase II as the students will continue to practice with the echo simulator to further improve their learning curve.

