

Visual Ultrasound Physics Registry Review

Philips Ultrasound
Fundamentals 102

This course is designed for all sonographers regardless of the specialty or the ultrasound registry exam being taken. It is a comprehensive, two-day lecture-based ultrasound physics review course.

Course description

The Visual Ultrasound Physics Registry Review course contains many images, illustrations, and videos explaining ultrasound physical principles that have traditionally appeared on previous registry exams. There will be ample opportunity for instructor and student interaction. A basic calculator is supplied so everyone can practice solving basic math problems. This course is designed for all sonographers regardless of specialty or the registry exam being taken. It is a comprehensive, two-day lecture-based ultrasound physics review course. Topics include basic math, introduction to ultrasound pulses, how ultrasound interacts with matter,

pulsed wave instruments, transducers, Doppler, artifacts, quality assurance, and bioeffects. To further assist you, a section of the course workbook includes 100 physics questions and the correct answers along with detailed explanations.

Pre-requisite knowledge

This is a registry review course designed to help those who plan to take the physics portion of the ARDMS or the CCI examination. While there are no prerequisites, this course is not a substitute for having attended a college-level physics course.

PHILIPS

Visual Ultrasound Physics Registry Review (FUN102)

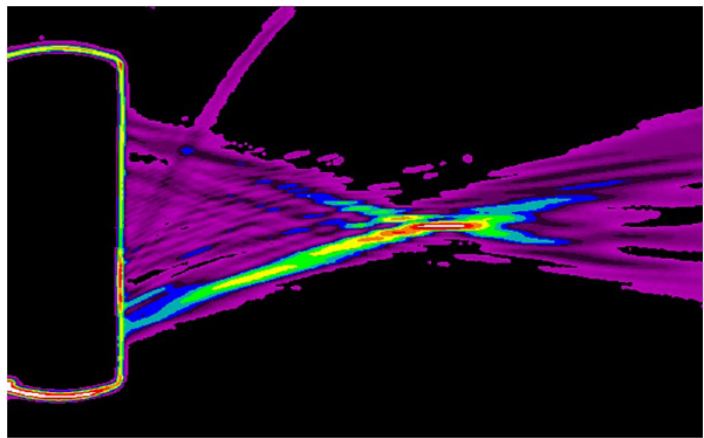
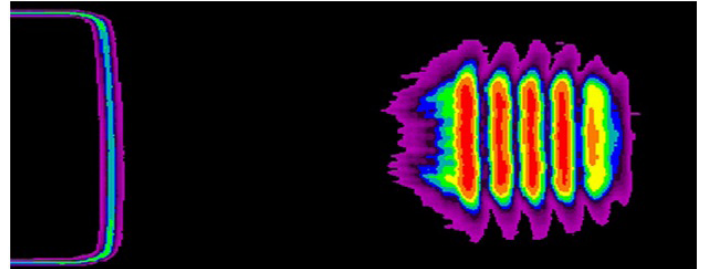
Course objectives

Upon successful completion of this program, you should be able to:

- Review basic equations, perform unit conversions, and express numbers in scientific notation
- Discuss what sound is as well as list and explain ultrasound wave parameters
- Discuss, contrast and compare pulsed and continuous wave ultrasound
- Explain the various ways ultrasound interacts with various media
- Describe how pulsed wave imaging instruments operate and list their main components
- Describe how piezoelectricity is produced
- Discuss what a transducer is, list the various transducers, and describe how they are constructed
- Describe the various types of flow and the variables that affect them
- Describe the Doppler effect; explain the Doppler equation and how its component parts are interrelated
- List the various types of Doppler applications
- Describe how color, pulsed, and continuous wave Doppler are created
- State the benefits and disadvantages of all Doppler instruments
- Discuss what an artifact is, list the various types of artifacts, and recognize them on an ultrasound image
- Discuss what bioeffects are and which mechanisms could induce tissue damage
- Discuss quality control and describe the various instruments used to test imaging systems

Location

Course will be held at the various Philips training centers in Alpharetta, Georgia; Bothell, Washington; and Cleveland, Ohio. This program may also be offered in other regional locations.



Faculty

Philips Ultrasound Clinical Education

For More Information

Contact Philips Ultrasound Clinical Education at 800.522.7022 and visit our education catalog at www.learningconnection.philips.com/ultrasound

Please visit www.learningconnection.philips.com/ultrasound



© 2014 Koninklijke Philips Electronics N.V.
All rights are reserved.
JUN 2014

Philips Healthcare reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

Philips Healthcare is part of Royal Philips Electronics

www.philips.com/healthcare@philips.com

Philips Healthcare
22100 Bothell Everett Highway
Bothell, Washington 98021