

ASCeXAM/ReASCE REVIEW COURSE

The most comprehensive review to help you prepare for the NBE certification examinations.

17th ANNUAL

ADVANCE PROGRAM

April 16-19, 2016
Loews Philadelphia Hotel
Philadelphia, PA

Course Director

Martin G. Keane, MD, FASE
Lewis Katz School of Medicine at Temple University
Philadelphia, PA

Course Co-Director

Gerard P. Aurigemma, MD, FASE
University of Massachusetts Medical School
Worcester, MA

Featuring:

- Review Lectures
- Illustrative Cases
- Expert Faculty Advice
- Audience Response System



Program Information

In a recent survey conducted by ASE, 97% of the people who took ASE's ASCeXam/ReASCE Review Course passed the echo boards.

Overview of the ASCeXAM/ReASCE Review Course

The American Society of Echocardiography (ASE) has specifically designed the ASCeXAM/ReASCE Review Course as a preparatory course for the National Board of Echocardiography, Inc.™ (NBE) ASCeXAM® and ReASCE® examinations. Lectures given will emphasize illustrative cases and as such will not be "canned talks" from other cardiovascular ultrasound courses.

This Review Course will cover all aspects of cardiovascular ultrasound essential to these examinations, including, physics, valvular heart disease, strain and 3D imaging, contrast echocardiography, ischemic heart disease, congenital heart disease, and more.

The expert faculty will use case studies, lectures, and interactive sessions to help prepare attendees for the ASCeXAM® or ReASCE® examinations. An audience response system and question and answer sessions will facilitate faculty interaction and self-guided learning.

The ASCeXAM/ReASCE Review Course gives attendees the unique opportunity to interact with and ask questions of the expert Faculty. Attendees will be provided with a black & white printed syllabus and a memory stick. Both will include lectures released by faculty in a PowerPoint handout format. In addition, attendees have the option to purchase a copy of the recorded lectures at a discounted rate during the registration process.

Learning Objectives

Upon completion of this course, participants should be better able to:

- Explain the essential physical principles of cardiac ultrasound.
- Recognize common ultrasound artifacts and their genesis.
- Estimate systolic function using standard M-mode and 2D echocardiography, as well as newer modalities such as strain imaging and 3D echocardiography.
- Identify and quantitate valvular heart disease severity.
- Describe the application of Doppler in the assessment of hemodynamics and diastolic function.
- Perform clinically relevant calculations of valve areas and intracardiac pressures.
- Explain proven techniques for interpreting stress echocardiographic examinations.
- Differentiate features of cardiac tamponade, constrictive pericarditis, and restrictive cardiomyopathy.
- List appropriate applications of echocardiography.
- Recognize newer applications of echocardiography such as myocardial contrast.

Why take the ASCeXAM® or ReASCE® Examinations?

NBE administers the ASCeXAM® and ReASCE® examinations to allow physicians to test and demonstrate their knowledge of echocardiography based on an objective standard. The ASCeXAM® is the Examination of Special Competence in Adult Echocardiography and is intended for those who wish to demonstrate special competence in all areas of echocardiography. The ReASCE® is the Recertification Examination of Special Competence in Adult Echocardiography designed specifically for those who have previously passed the ASCeXAM®. The purpose of ReASCE® is to promote continued excellence in all areas of echocardiography.

Passing these examinations is mandatory when applying for and maintaining NBE certification in any or all of the following areas: transthoracic echocardiography,

transesophageal echocardiography or stress echocardiography.

The examinations are given at testing centers throughout the United States. The test will consist of one case-oriented block and three multiple choice blocks covering the following content areas:

- physical principles of ultrasound;
- valvular heart disease;
- ventricular size and function, coronary artery disease, cardiomyopathies;
- congenital heart disease and fetal echocardiography;
- cardiac masses, pericardial disease, myocardial contrast, and newer applications of echocardiography.

Questions will test knowledge of M-mode, 2D and Doppler echocardiography, transesophageal, contrast, and stress echocardiography. The case-oriented block will last up to 1½ hours while the other three blocks will last up to 60 minutes per block.

More details concerning these examinations can be found on the NBE website at echoboards.org.

Who Should Attend?

This course is designed for physicians interested in sitting for the ASCeXAM® (Examination of Special Competence in Adult Echocardiography) or the ReASCE® (Recertification Examination of Special Competence in Adult Echocardiography), as well as physicians and sonographers interested in a broad review of cardiovascular ultrasound.

ASE Membership

Nonmember registrants for the 17th Annual ASCeXam/ReASCE Review Course will receive a complimentary American Society of Echocardiography (ASE) membership through December 31, 2016, with their registration. Nonmember registration is only available to new ASE members. ASE serves its members in numerous ways by providing education, advocacy, research, practice guidelines, and a community for their profession. ASE membership includes approximately \$750 of FREE CME credits a year, in addition to discounts on all ASE educational courses and products. Also included is a monthly subscription to the Journal of the American Society of Echocardiography (JASE), help with legislative coding and reimbursement issues, and other career resources. A plethora of online tutorials, webinars, and other educational activities make membership beneficial to echocardiographers located around the world. View the extensive list of member benefits at ASEcho.org.

Cancellations

If you wish to cancel your participation in the 2016 ASCeXAM/ReASCE Review Course, your registration fee, less a \$100.00 administrative fee will be refunded when written notification is received on or before March 16, 2016. No refunds will be made after March 16, 2016 or given for no-shows.

Registration for any ASE course is non-transferable to another participant or another course. In the event that an individual is unable to attend the conference due to inclement weather or chooses not to attend due to a health epidemic, ASE is unable to refund the conference fee. In the unlikely event the course is cancelled, ASE is responsible only for refund of the registration fee, minus the administrative fee, and not for transportation, hotel accommodations, or any miscellaneous expenses incurred by the participant.



Program Information

Accreditation & Designation

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint providership of the American Society of Echocardiography and the American Society of Echocardiography Education and Research Foundation. The American Society of Echocardiography is accredited by the ACCME to provide continuing medical education for physicians.

The American Society of Echocardiography designates this live activity for a maximum of **30.75 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Successful completion of this CME activity enables the participant to earn up to 30.75 MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

ARDMS, CCI, and Sonography Canada recognize ASE's certificates and have agreed to honor the credit hours toward their registry requirements for sonographers.



All or a portion of this educational activity may meet the CME requirement for IAC Echocardiography accreditation.

This activity is eligible for Section 1 credits in the Royal College of Physicians and Surgeons of Canada's Maintenance of Certification (MOC) Program. Participants must log into MAINPORT to claim this activity.

The American Society of Echocardiography is committed to ensuring that its educational mission and all educational programs are not influenced by the special interests of any corporation or individual, and its mandate is to retain only those speakers whose financial interests can be effectively resolved to maintain the goals and educational integrity of the program. While a monetary or professional affiliation with a corporation does not necessarily influence a speaker's presentation, the Essential Areas and policies of the ACCME require that any relationships that could possibly conflict with the educational value of the program be resolved prior to the educational session and disclosed to the audience.

Lodging Information

ASE's 2016 ASCeXAM/ReASCE Review Course will be held at the Loews Philadelphia Hotel, 1200 Market Street, Philadelphia, PA 19107. The hotel is located in the heart of Center City Philadelphia and is within walking distance to all of the city's major attractions, including the Liberty Bell, Independence Hall, Love Park, and more. The Loews Philadelphia Hotel is less than 10 miles from the Philadelphia International Airport.

ASE has secured a block of rooms at the Loews Philadelphia Hotel. Special discounted rates for the course are \$179 for a single or double occupancy.

To make reservations by phone, call 1-888-575-6397. Callers should identify themselves as being with the ASE 2016 ASEeXAM/ReASCE Review Course in order to receive this special room rate. To make reservations online please visit ASEcho.org/ReviewCourse.

Reservations must be made by Thursday, March 10, 2016 at 5:00 pm EST.

All reservations must be guaranteed and accompanied by a first night room deposit or guaranteed with a major credit card. Guestroom cancellation must occur 24 hours prior to arrival. If guest does not check-in OR has not cancelled their reservation 24 hours prior to arrival, 1 night's room & tax will be charged to the guest's credit card. The check in time for the Loews Philadelphia Hotel is 4:00 pm and check out time is 12:00 pm.

Invited Faculty

Course Director

Martin G. Keane, MD, FASE
Lewis Katz School of Medicine at
Temple University
Philadelphia, PA

Expert Faculty

Amr E. Abbas, MD, FASE
Beaumont Health System
Berkley, MI

David B. Adams, RCS, RDCS, FASE
Duke University Medical Center
Durham, NC

Sidney K. Edelman, PhD
ESP Ultrasound
The Woodlands, TX

Itzhak Kronzon, MD, FASE
Lenox Hill Hospital
New York, NY

Steven J. Lester, MD, FASE
Mayo Clinic
Scottsdale, AZ

Robert A. Levine, MD
Massachusetts General Hospital
Boston, MA

Sunil Mankad, MD, FASE
Mayo Clinic
Rochester, MN

Natesa G. Pandian, MD
Tufts University Medical Center
Boston, MA

Course Co-Director

Gerard P. Aurigemma, MD, FASE
University of Massachusetts
Medical School
Worcester, MA

Michael D. Pettersen, MD
Rocky Mountain Pediatric
Cardiology
Denver, CO

Sabrina D. Phillips, MD, FASE
Oklahoma Health Science
Center
Oklahoma City, OK

Miguel A. Quiñones, MD, FASE
Methodist DeBakey Heart &
Vascular Center
Houston, TX

Lawrence G. Rudski, MD, FASE
Jewish General Hospital
Cote St Luc, QC, Canada

Dennis A. Tighe, MD, FASE
University of Massachusetts
Medical School
Worcester, MA

Susan E. Wieggers, MD, FASE
Lewis Katz School of Medicine
at Temple University
Philadelphia, PA

"Excellent course
- very good job of
covering a tremendous
amount of material in a
cohesive and efficient
format."

Course Schedule

SATURDAY, APRIL 16, 2016

9:30 am

REGISTRATION

M. Keane, presiding

12:00 pm

Welcome

M. Keane

12:15 pm

Overview of ASCeXAM

D. Tighe

S. Wiegers

12:45 pm

Normal Transthoracic/ Transesophageal Examination

S. Wiegers

2:30 pm

Echocardiographic Evaluation of the Left Ventricle

M. Keane

3:15 pm

VISIT EXHIBITS AND REFRESHMENT BREAK

G. Aurigemma, presiding

3:45 pm

Echocardiographic Evaluation of the Right Ventricle

L. Rudski

4:30 pm

Right Heart Hemodynamics: Echocardiography - PA Catheter in a Box

I. Kronzon

5:15 pm

Concepts of Imaging/Knobology/Artifacts

D. Adams

5:45 pm

Read with the Experts: Cases and Audience Response Questions

G. Aurigemma

I. Kronzon

S. Wiegers

6:30 pm

ADJOURN

SUNDAY, APRIL 17, 2016

6:30 am

REGISTRATION

6:40 am

VISIT EXHIBITS & BREAKFAST

M. Keane, presiding

7:20 am

Overview

M. Keane

7:30 am

Spectral Doppler Cases

G. Aurigemma

I. Kronzon

8:15 am

Classic M-Mode Echocardiography

I. Kronzon

G. Aurigemma

9:00 am

Myocardial Imaging: Tissue Doppler and Strain Imaging

S. Lester

9:45 am

VISIT EXHIBITS & REFRESHMENT BREAK

10:15 am

Cardiac Masses

D. Tighe

10:45 am

Anatomy of the Mitral Valve and Quantification of Mitral Regurgitation

S. Mankad

11:30 am

Mitral Valve Stenosis

R. Levine

12:15 pm

VISIT EXHIBITS & LUNCH

G. Aurigemma, presiding

1:15 pm

Echocardiographic Evaluation of Mitral Valve Prostheses

D. Tighe

2:00 pm

Anatomy of the Aortic Valve and Spectrum of Aortic Stenosis

M. Keane

2:45 pm

Aortic Stenosis: Severe by Gradient but not Valve Area

A. Abbas

3:30 pm

VISIT EXHIBITS & REFRESHMENT BREAK

4:00 pm

Etiology and Quantification of Aortic Regurgitation

M. Keane

4:45 pm

Echocardiographic Evaluation of Aortic Valve Prostheses

A. Abbas

5:30 pm

Valve Disease: Board Review Questions

A. Abbas

M. Keane

D. Tighe

6:15 pm

ADJOURN



Course Schedule

"All lectures were valuable. Course was wonderful."

MONDAY, APRIL 18, 2016

6:30 am **REGISTRATION**

6:30 am **VISIT EXHIBITS & BREAKFAST**

M. Keane, presiding

7:20 am **Overview**

M. Keane

7:30 am **Endocarditis: The Role of Echocardiography**

S. Wieggers

8:15 am **Basic Ultrasound Physics**

S. Edelman

9:00 am **Tricuspid and Pulmonary Valve Disease**

L. Rudski

9:45 am **VISIT EXHIBITS & REFRESHMENT BREAK**

10:15 am **Typical Board Questions in Physics**

S. Edelman

11:00 am **Artifacts: Theory and Illustrative Examples**

R. Levine

11:45 am **Read With the Experts: Cases and Audience Response Questions**

M. Keane

R. Levine

S. Mankad

12:30 pm **VISIT EXHIBITS & LUNCH**

G. Aurigemma, presiding

1:30 pm **Hypertrophic Cardiomyopathy or Phenocopy?**

S. Lester

2:15 pm **Echocardiography in Systemic Disease**

S. Mankad

3:00 pm **Stress Echocardiography: Theoretical and Practical Considerations**

S. Lester

3:45 pm **VISIT EXHIBITS & BREAK**

4:15 pm **Echo in Ischemic Heart Disease and Myocardial Infarction**

D. Tighe

5:00 pm **Stress Echocardiography: Illustrative Cases**

G. Aurigemma

S. Lester

S. Mankad

6:00 pm **ADJOURN**

TUESDAY, APRIL 19, 2016

6:30 am **REGISTRATION**

6:30 am **VISIT EXHIBITS & BREAKFAST**

G. Aurigemma, presiding

7:20 am **Overview**

G. Aurigemma

7:30 am **Commonly Encountered Congenital Heart Disease in Adults**

S. Phillips

8:15 am **Congenital Heart Disease: An Approach for Simple and Complex Anomalies**

M. Pettersen

9:00 am **Congenital Heart Disease Cases**

M. Pettersen

S. Phillips

9:45 am **VISIT EXHIBITS & REFRESHMENT BREAK**

10:15 am **Echocardiographic Evaluation of Diastolic Function**

M. Quiñones

11:15 am **Echocardiographic Evaluation of Hemodynamics in Pericardial Disease**

N. Pandian

12:00 pm **Case Studies in Diastolic Dysfunction and Pericardial Disease**

G. Aurigemma

N. Pandian

M. Quiñones

1:00 pm **VISIT EXHIBITS & LUNCH**

M. Keane, presiding

2:00 pm **Contrast Echocardiography**

S. Lester

2:45 pm **Applications of 3D Imaging a Case-based Approach**

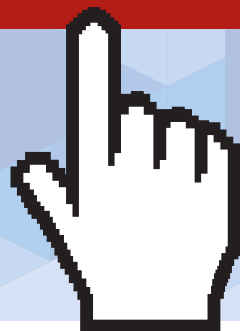
S. Mankad

3:30 pm **Diseases of the Aorta**

N. Pandian

4:15 pm **ADJOURN**

The new ASCeXAM/ReASCE Online **PRACTICE EXAM SIMULATION**



The **ASCeXAM/ReASCE Online Practice Exam Simulation** is designed to prepare physicians for the National Board of Echocardiography's ASCeXAM or ReASCE certification examinations. Developed by renowned experts in the field of echocardiography, the test bank consists of 300 multiple choice questions containing over 400 images and videos covering: the physical principles of cardiovascular ultrasound; valvular heart disease; ventricular size and function; coronary artery disease and cardiomyopathies; congenital heart disease and fetal echocardiography; as well as cardiac masses, pericardial disease, myocardial contrast, and the latest applications in echocardiography. M-mode, 2-Dimensional, and Doppler echocardiography are also covered.

In addition to objective-based questions, case studies are included to evaluate your knowledge of the field. After purchasing this exam simulation, you have access for 18 weeks and are given the opportunity to take two simulated exams consisting of 150 questions each, assessing your skills and knowledge in all areas. You may repeat these exams a total of six times. The grading and feedback for all six attempts will be saved. In addition to an overall grade, a percentage breakdown of your incorrect and correct answers over the five categories will be provided for each attempt, allowing you to focus your study accordingly. Feedback includes explanations of the correct and incorrect answers, offering valuable instruction.

**The American Society of Echocardiography strives to be
the premier source for ASCeXAM/ReASCE preparation.**

Take advantage of this valuable preparation tool

\$199 ASE Members

\$250 Nonmembers



Visit ASEUniversity.org to purchase now!

ASceXAM/ReASCE REVIEW COURSE

Register online at
ASEcho.org/ReviewCourse

April 16-19, 2016

Loews Philadelphia Hotel
Philadelphia, PA

Your ASceXAM/ReASCE Review Course registration fee includes breakfast, lunch, refreshment breaks, a printed syllabus, online access to course materials, and 30.75 hours of CME credit. All other meals are on your own.

Name: _____

First Name

Middle Initial

Last Name

Credential: ☐ MD ☐ DO ☐ PhD ☐ RN ☐ RCS ☐ RDCS ☐ Other

Institution: _____

Email Address: _____

(All correspondence regarding your registration including your confirmation will be sent to this email address.)

Which is your preferred mailing address? ☐ Work/Business ☐ Home

Street Address: _____

City: _____ State/Province: _____ Zip/Postal Code: _____ Country: _____

Telephone: _____ Fax: _____

☐ If you need disability accommodations, please check here and advise us of your needs at least two weeks before the program.

Special Needs: ASE encourages participation by all individuals. If you have a disability or other specific needs, advance notification will help ASE to better serve you. Please contact ASE by email at ReviewCourse@asecho.org or telephone at 919-861-5574.

Special Dietary Needs: _____

Registration Fees

	Prior to March 16, 2016	After March 16, 2016
ASE Physician Member	\$925	\$1,025
Physician Nonmember*	\$1200	\$1,300
ASE Sonographer/Allied Health Member	\$825	\$925
Sonographer/Allied Health Nonmember*	\$925	\$1,025
ASE Member Fellow in Training*	\$875	\$975
Fellow in Training Nonmember*	\$975	\$1,075

* This registration fee includes ASE membership through December 31, 2016. Nonmember registration is only available to new ASE members.

Syllabus

☐ Course registration comes with a copy of the black and white printed syllabus of the PowerPoint slides. If you do not want the printed syllabus and only want the memory stick please check here to opt out.

ASceXAM/ReASCE Conference Online Library

☐ \$199.00 **Order now and save!** The Review Course library includes unlimited online access to the 2016 ASceXAM/ReASCE Review Course recorded sessions. Study prior to the exam and educate your staff year-round with the ASE Online Library.

ASceXAM/ReASCE Online Practice Exam Simulation

☐ Order your ASceXAM/ReASCE Online Practice Exam at the same time you register. \$199 ASE Member \$250 Nonmember.

Payment Information

Payment must accompany this form.

☐ Check (payable to American Society of Echocardiography in U.S. dollars drawn on a U.S. bank)

Credit Card: ☐ Visa ☐ MasterCard ☐ American Express

Cardholder's Name: _____

Card Number: _____ Expiration Date: _____



ASE Foundation

American Society of Echocardiography
2100 Gateway Centre Boulevard
Suite 310
Morrisville, NC 27560

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Register now at ASEcho.org/ReviewCourse



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