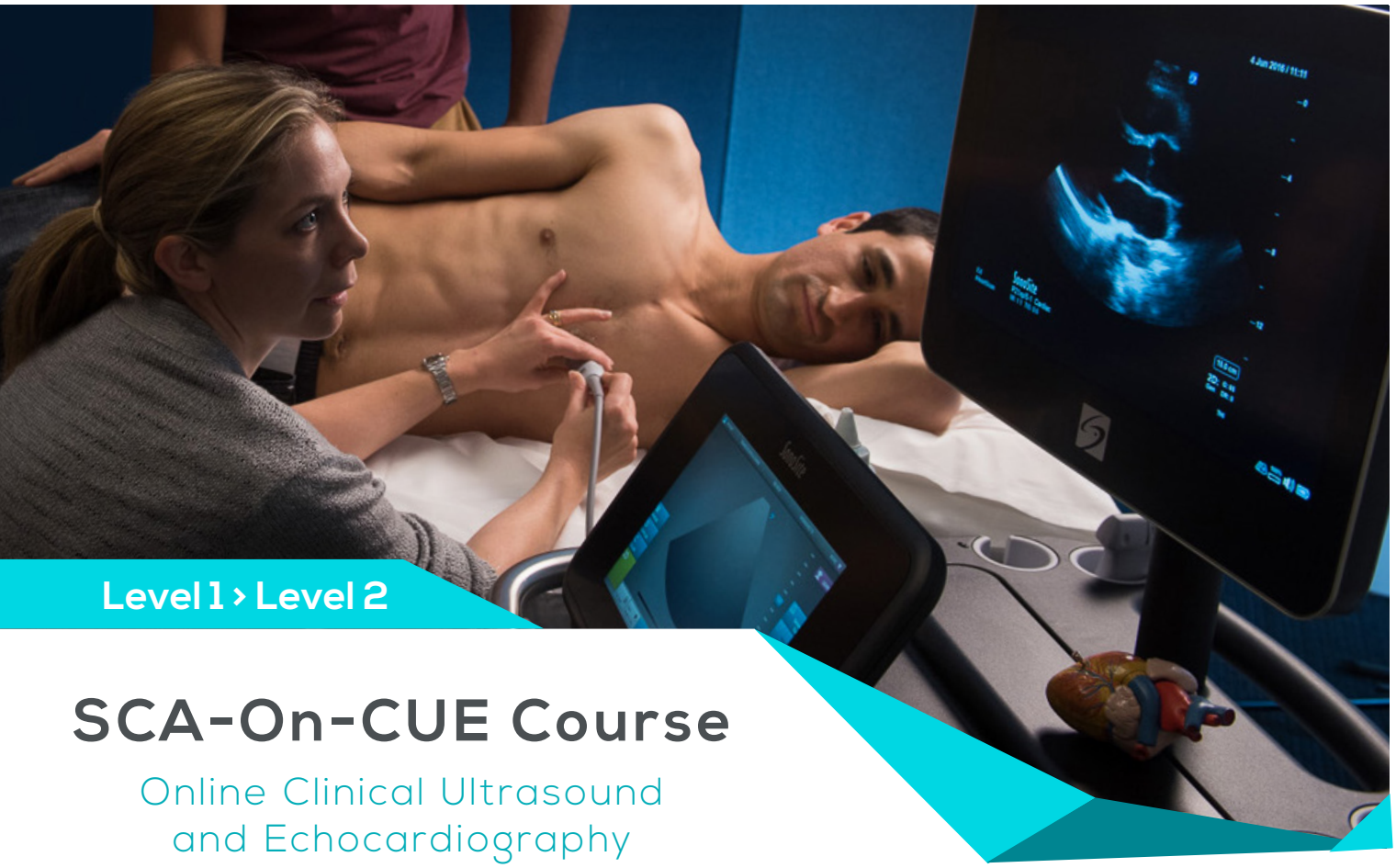
SOCIETY OF
CARDIOVASCULAR
ANESTHESIOLOGISTS
Knowledge • Care • Investigation



Level 1 › Level 2

SCA-On-CUE Course

Online Clinical Ultrasound and Echocardiography

"A new paradigm in echocardiography education, entirely distance-based learning"

Convenience
Study on devices or web browsers

Knowledge
Tutorials on specific learning areas

Reinforcement
Online tutorial assessments and case studies

Recognition
Completion Certificate

INTRODUCTION

The Society of Cardiovascular Anesthesiologists (SCA) is an international membership organization with cardiac, thoracic, and vascular anesthesiologists that promotes excellence in clinical care, education and research in the subspecialty.

The SCA have collaborated with iTeachU to deliver to its members the Online Clinical Ultrasound and Echocardiography SCA-On-CUE Level 1 and Level 2 courses to physicians around the world. These comprehensive courses offer echocardiography (TTE and TEE) and other uses of clinical ultrasound including vascular access, lung ultrasound, ultrasound-guided regional anesthesia, FAST and DVT assessment.

Head Office: (61) 03-8344-5673
USA & Canada Toll Free: (1) 1-866-391-4965
Hong Kong: (852) 9227-3706

iTeachU Limited
Email: support@iteachu.com
Web: iteachu.com

Course Structure

SUBJECTS

Each subject can be purchased individually. However, the subjects are designed to be completed in order. Please pay careful attention to the order of subjects when purchasing.

STUDY TIME RECOMMENDATION

We offer flexible learning, however recommend a time frame of a year to complete each level. Therefore to complete 2 subjects in a 6 month period, you are recommended to spend 10 study hours per week.

INTERNET ACCESS

Broadband internet access is a course requirement as we administer the course online and via email. All assessments require a live internet connection.

STUDY EQUIPMENT

The course material is delivered via the iTeachU app on the *App Store* for iPad and the *Windows Store* for Window tablet devices. Web browsers can be used for computers. Chrome is recommended.

EXAMINATIONS

Examination can be done whenever you are ready. Once all self-assessments and case studies are submitted, sit your exam in your own time and place.

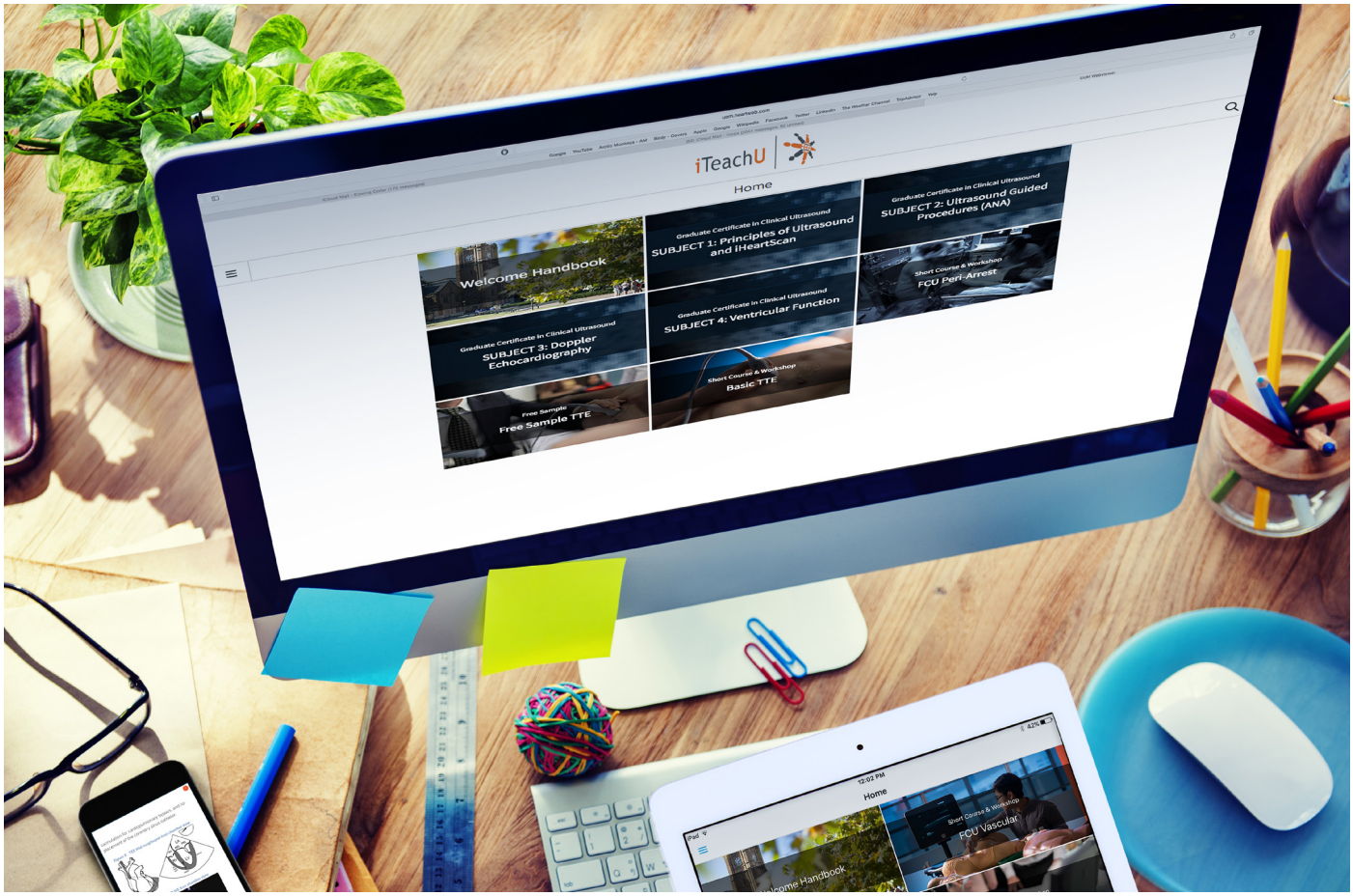
ASSESSMENT COMPONENTS

For self-assessment questions, once you have completed, the screen will refresh with the answers and explanations.

- Submission of online self-assessments & case-studies before the examination
- Examination of 50 multiple choice questions per subject which is conducted in an open-book style

CERTIFICATE UPON COMPLETION

Upon meeting the Assessment Components for each course level a Completion Certificate will be emailed. For individual subject enrollments a Statement of Activities can be generated from within the assessment portal.



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SCA-On-CUE Level 1

SUBJECT 1

PRINCIPLES OF ULTRASOUND AND IHEARTSCAN™

This subject will outline the physics related to medical ultrasound use; an introduction to transthoracic echocardiography using the focused assessment technique and iHeartScan™ (Hemodynamics Echocardiography Assessment in Real Time).

TUTORIALS:

1. Principles of Ultrasound iHeartScan™
2. Generating Ultrasound Image
3. Basic Modes of Ultrasound
4. Operation of the Ultrasound Machine
5. Transthoracic Echocardiography
6. Transesophageal Echocardiography Examination
7. Anatomy of the Heart and Coronary Arteries
8. Anatomy of the Valves
9. Basic Hemodynamic State Assessment
10. iHeartScan™ View, Valves and Pericardium
11. iHeartScan™ Case Studies
12. Artefact Generation
13. Basic TEE Case Studies 1–10 (Optional)

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SUBJECT 2

ULTRASOUND GUIDED PROCEDURES

This subject will outline the technique of using ultrasound to guide percutaneous procedures. Procedures will include vessel access, nerve blocks, and trauma related procedures. There will be an elective of either “Anesthesia” or “ICU”.

TUTORIALS:

CORE

1. Ultrasound Guided Vascular Access
2. Lung Ultrasound Diagnosis
3. Lung Ultrasound Procedures and Case Studies
4. FAST
5. Basic TEE Case Studies 11–20 (Optional)

MODULE 1 – ANESTHESIA

1. Nerve Blocks Upper Limb
2. Nerve Blocks Lower Limb
3. Nerve Blocks Peripheral Nerves
4. Ultrasound Guided Abdominal and Thoracic Blocks
5. Ultrasound Guided Peripheral Nerve Block Catheters

MODULE 2 – ICU

1. Carotid Ultrasound
2. Diagnostic Dilemmas in Perioperative Medicine
3. Diagnostic Dilemmas in ICU
4. Ultrasound Assessment of Deep venous thrombosis

CLICK TO ENROLL

**The Basic TEE case studies are optional, and are not an assessable component of the course.*

SUBJECT 3

DOPPLER ECHOCARDIOGRAPHY

This subject will introduce Doppler echocardiography to complement basic transthoracic echocardiography imaging.

TUTORIALS:

1. How to Use ProSolv - Introduction Guide
2. Principles of Blood Flow
3. Principles of Doppler, and Optimizing Image
4. Basic Doppler Measurement Technique
5. Color Flow Doppler
6. Doppler Assessment of Systolic Function
7. Using Doppler to Help Grade Valve Lesions
8. Limited TTE Studies with Doppler Measurements
9. Basic TEE Case Studies 21–35 (Optional)

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SUBJECT 4

VENTRICULAR FUNCTION

This subject will expand the knowledge of transthoracic echocardiography by learning pathophysiology and assessment of ventricular function, including diastolic function.

TUTORIALS:

1. The Cardiac Cycle
2. Left Ventricular Systolic Function Pathophysiology
3. Evaluation of Left Ventricular Function
4. Right Ventricular Systolic Function
5. Right Ventricular Function Evaluation
6. Atrial Function and Pressure Estimation
7. Diastolic Function Pathophysiology
8. Assessment of Diastolic Function
9. Management of Diastolic Function
10. Basic Congenital Heart Disease Studies
11. Ventricular Function Case Studies
12. Basic TEE Case Studies 36–50 (Optional)

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SCA-On-CUE Level 2

SUBJECT 5

ADVANCED ANATOMY AND DOPPLER ANALYSIS

This subject will provide additional advanced material on anatomy and Doppler analysis, which will not have been covered at the Certificate level.

TUTORIALS:

1. Role of Echocardiography in Perioperative and Critical Care Environments
2. Safety and Complications of Ultrasound and TEE
3. Cleaning and Disinfection of Ultrasound Probes
4. Additional TEE Views and Anatomical Variants
5. Anatomy - Other Structures
6. Introduction of 3D Transesophageal Echocardiography
7. Introduction to 3D Transthoracic Echocardiography
8. Calculations Workshop
9. Principles of PISA Evaluation of Regurgitant Areas
10. Principles of Echocardiography Reporting
11. Use of Echocardiography Reporting Database
12. TTE & TEE Case Studies

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SUBJECT 6

ADVANCED VALVE AND AORTIC PATHOLOGY

This subject will provide advanced knowledge of valvular and aortic pathology and echocardiography assessment.

TUTORIALS:

1. Mitral Regurgitation
2. Perioperative Assessment of Mitral Valve Regurgitation
3. Mitral Stenosis
4. The Aortic Valve - Aortic Stenosis
5. The Aortic Valve - Aortic Regurgitation
6. The Tricuspid Valve
7. Aortic Disease
8. Prosthetic Valve Assessment
9. The Pulmonary Valve and Miscellaneous Conditions
10. Miscellaneous Congenital Cardiac Disorders
11. Comprehensive Case Studies

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SUBJECT 7

APPLICATIONS OF ECHOCARDIOGRAPHY

This subject will identify the role of ultrasound in specific clinical situations relevant to perioperative and critical care practice.

TUTORIALS:

1. Clinical Applications - Persistent Hypotension
2. Clinical Applications - Acute Pulmonary Oedema
3. High-Speed Deceleration Injury
4. Unexplained Sepsis
5. Stroke
6. Pericardial Tamponade
7. Epiaortic Echocardiography
8. Applications of Echocardiography in Perioperative and Critical Care Medicine Case Studies

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SUBJECT 8

ADVANCED ECHOCARDIOGRAPHY INTERPRETATION

This subject will outline how to formally report diagnostic echocardiography studies, using a custom designed database reporting system. There will be 50 case studies to be reported.

TUTORIALS:

1. Aortic Valve Pathology Case Studies
2. Mitral Valve Pathology Case Studies
3. Right Heart Pathology Case Studies
4. Left Ventricular Pathology Case Studies
5. Medical Conditions, Tumors and Aortic Pathology Case Studies

CLICK TO ENROLL

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