For recent reviews see the **scct.org** website.
surveymonkey.com/results/SM-3SSD2WFKL/

For older reviews please go to: **cdn.ymaws.com/scct.org/resource/resmgr/images/John_Hopkins_Cardiac_CT_Prac.pdf**

WHAT OUR ATTENDEES HAVE HAD TO SAY!

- "An excellent training course very focused, interactive and valuable for learners at all training levels, even for the ones without any prior imaging experience.
- "Great overview for cardiac CT, with a good mix of didactics, case assessments and live cases. Dr. Shapiro and Dr. Hees were very accessible and accommodating throughout the course."
- "Excellent. By far the best course I have attended. 5 days of non stop learning."
- "Excellent course. Highly recommend. Good didactics and review of cases. Small class size. Comprehensive review. Helps prepare you to read independently."
- "An excellent overview of the essentials of cardiac CT. Helpful lectures are accompanied by hands on practice with the CT software covering several cases of diverse pathology."
- "I immensely enjoyed the course along with Dr. Ed Shapiro, Dr. Paul Hees and additional colleagues. It is evident he clearly enjoys teaching the course and the institutions rich history. It is a must experience course."
- "This course is excellent. Perfect balance between practice and theory."
- "This was an amazing course for someone like myself in a very busy interventional practice. It was very comprehensive and I feel very comfortable in reading coronary arteriography and CT angio due to very comprehensive teaching session. The case samples were very good and Dr. Shapiro and rest of the team are simply amazing teachers who clearly enjoy what they do. Highly recommend this course to any one who may be interested in starting a program of their own or even improve their skills."
- "One of the best courses I have attended over my career spanning 22 years and counting. Amazing staff, well organized, excellent computer facilities, very knowledgeable speakers and of course excellent variety of cases."
- "Exceptional course. Lecturers doing an amazing job covering large amount of cardiac pathology with imaging that makes it easier to internalize the anatomy and disease. Essentially was like exceptional general cardiology review course. Dr. Shapiro is an exceptional story teller and teacher and makes learning very easy for something that initially appeared intimidating. Will recommend to my other colleagues."
- "Excellent and comprehensive course covering all aspects of cardiac CT. Passionate and expert faculty with a wealth of experience coupled with an enthusiasm and eagerness to teach. Excellent background to Baltimore and the history of the Johns Hopkins institutions which I particularly valued as an international attendee."
- "Best CT course. Extremely knowledgeable faculty with a wide variety of cases. Very hands on."
- "Fantastic course. Great cases. Well organized. Fun. Great value. Fantastic lectures. Very friendly teachers who teach in a welcoming environment."
- "Fantastic course. Great educational experience involving the introduction to physics of CT and reviewing interesting and common cases of cardiac CT."
- "Excellent course! Very helpful for beginners."
- "This was an outstanding course with an excellent mix of didactic + interactive sessions.
- Very useful for any level of CT knowledge. I will leave this course excited to pursue CTCA in daily practice."

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DATED MATERIAL

JOHNS HOPKINS MEDICINE

Office of Continuing Medical Education
720 Rutland Avenue / Turner 20
Baltimore, Maryland 21205-2195

Cardiac CT Practicum:
The Total Experience

September 20, 2021 - June 17, 2022
Baltimore, Maryland

CloudCME

Check out our mobile app CloudCME.
Organization Code: **HopkinsCME**
hopkinscme.cloud-cme.com/aph.aspx

CONTINUING MEDICAL EDUCATION

Division of Cardiology
Johns Hopkins Bayview Medical Center
Presents

Cardiac CT Practicum:
The Total Experience

IMPORTANT NOTICES

1. Effective since July 1, 2020, CBCCT board eligibility requires 250 cases including 65 live cases, all to have been completed within the last 36 months. This course has been reformatted to include the increased number of cases through intensive study during a single week plus online access and review of additional cases in the period following the course week.
2. It is preferred that you arrange your work schedule so that you have some time during the week following the course to complete those additional cases so that you are able to get the best feedback possible from course instructors, who will be available that week.
3. **COVID-19 Information.** To meet the challenges posed by the pandemic the last six courses of the 2019-2020 academic year were smoothly and successfully converted to a fully virtual format using cloud-based Vitrea workstations, Zoom software, and the use of two monitors (or 2 computers). This format will continue at least through December 2021. We have found that to accomplish the studies required for Level II in the virtual format requires long days (8:30 AM to 7:30 PM) plus the additional online access and review of cases mentioned above. Instructions about the requirements and help with set-up will be provided in advance of the course date. Further information about the format and requirements can be obtained on our website or by contacting Suzie Orr at 410-550-0845 or sorr1@jhmi.edu.

The longest running Cardiac CT training course.

Activity Directors:
Edward P. Shapiro, MD
Armin A. Zadeh, MD, PhD

This activity has been approved for 44.75 *AMA PRA Category 1 Credits*™.

INCLUDES
- Johns Hopkins quality (#1)
- Everything needed for board eligibility
- All requirements for Level II
- Case requirements for advancing to Level III
- Remote access to Johns Hopkins workstations for three months

JOHNS HOPKINS MEDICINE

Cardiac CT Practicum:
The Total Experience

WHO SHOULD ATTEND

This activity is intended for physicians including cardiologists, radiologists, and nuclear specialists who are currently in practice or are in a fellowship, seeking Level II competency training. For those who have already qualified for Level II, this added experience will meet the case requirements for Level III.

OBJECTIVES

After attending this activity, the learner will demonstrate the ability to:

1) Choose patients appropriate for this imaging modality.
2) Prepare patients to obtain optimal study results.
3) Optimize image reconstruction for cardiac analyses.
4) Use 3D workstation to visualize all aspects of cardiac anatomy.
5) Assess extent of coronary atherosclerosis and evaluate LV function.

DESCRIPTION

Cardiac CT Practicum: The Total Experience has been reformatted to virtual education per social distancing protocol during the COVID-19 global pandemic. This multimedia activity includes live, online instruction from expert faculty from Johns Hopkins School of Medicine and interactive video presentation and CT interpretation from Hopkins library of cases. Though reimagined, this workstation-based training activity continues to meet American College of Cardiology/ American Heart Association requirements. Each learner receives personal attention and instruction by the faculty, who are broadcasting from a workstation to demonstrate the variety of pathology that can be evaluated by CT (coronary disease, bypass grafts, stents, anomalies, cardiomyopathies, EP, pericardial disease, cardiac tumors, TAVR). A minimum of 100 cases are reviewed during this activity and another 150 are completed after the study week during continuing online availability of instructors.

Twenty-one hours of didactic instruction are included through lectures and reading materials, which will cover topics of patient selection, preparation, radiation, contrast, cardiac anatomy, assessment of cardiac function, cardiac pathology, etc. Members of the Johns Hopkins faculty and guest faculty will present these topics. Participants will complete a post-test to measure successful transfer of knowledge for these materials.

The requirement for observation of 65 cases is satisfied using a combination of formats. During the class week the student is involved with all aspects of patients being scanned including patient selection, preparation (including the use of beta blockers, ivabradine and nitroglycerin), study set up and scan acquisition. This includes discussion of each case with the technologist and attending physician. After the class week additional live cases are acquired through our unique live cell phone connection with the scanner; also including technologist and attending input. Further case experience is acquired through recordings of case acquisition.

ACCREDITATION STATEMENT

The Johns Hopkins University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

ACCME ACCREDITED WITH COMMENDATION

CREDIT DESIGNATION STATEMENT

The Johns Hopkins University School of Medicine designates this live activity for a maximum of 44.75 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

OTHER CREDIT(S)

American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) Program

ABIM CME MOC ACCREDITED

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 44.75 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.

POLICY ON PRESENTER AND PROVIDER DISCLOSURE

It is the policy of the Johns Hopkins School of Medicine that the presenter and provider globally disclose conflicts of interest. The Johns Hopkins School of Medicine OCME has established policies that will identify and resolve conflicts of interest prior to this educational activity. Detailed disclosure will be made prior to presentation of the education.

Lecture Topics *(This schedule is subject to change)*

Overview Cardiac CT . . . . . Edward P. Shapiro, MD
10 Steps . . . . . Edward P. Shapiro, MD
Use of the 3D Workstation . . . . . Paul S. Hees, PhD
Post-Processing . . . . . Michael Blaha, MD, MPH
Non-Obstructive Plaque . . . . . Edward P. Shapiro, MD
Cardiac CT—Guided Decision Making in Diabetes . . . . . Michael Blaha, MD, MPH
IV Contrast . . . . . Jeffrey A. Brinker, MD
Coronary Calcium in Assessing Cardiovascular Risk . . . . . Michael Blaha, MD, MPH
Beta Blockers . . . . . Edward P. Shapiro, MD
Radiation . . . . . Mahadevappa Mahesh, PhD
CT vs Gold Standard . . . . . Armin A. Zadeh, MD, PhD
CT Artifacts . . . . . Irfan S. Shafique, MD
Stents and Bypass Grafts . . . . . Charles S. White, MD
Anomalous Coronaries . . . . . Edward P. Shapiro, MD
CT Viability and Perfusion . . . . . Ron Jacob, MD
Non-Cardiac Findings . . . . . Irfan S. Shafique, MD
Coding and Reimbursement . . . . . Edward P. Shapiro, MD
Contrast and Dose Modulation . . . . . Armin A. Zadeh, MD
Emergency Room Applications . . . . . Charles S. White, MD
EP Applications . . . . . Armin A. Zadeh, MD, PhD
Cardiac CT for TAVR . . . . . Stefan Zimmerman, MD
Appropriateness Criteria . . . . . Armin A. Zadeh, MD, PhD

The Johns Hopkins University School of Medicine takes responsibility for the content, quality and scientific integrity of this CME activity.

This schedule is subject to change.

Speakers

ACTIVITY DIRECTORS

Edward P. Shapiro, MD
Professor of Medicine
Johns Hopkins University School of Medicine

Armin A. Zadeh, MD, PhD
Associate Professor of Medicine
Johns Hopkins University School of Medicine

JOHNS HOPKINS SPEAKERS

Michael Blaha, MD, MPH
Professor of Medicine

Jeffrey A. Brinker, MD
Professor of Medicine

Paul S. Hees, PhD
Lecturer in Medicine

Mahadevappa Mahesh, PhD
Professor of Radiology and Radiological Sciences
Chief Physicist

Stefan Zimmerman, MD
Associate Professor of Radiology Diagnostic Imaging

GUEST SPEAKERS

Ron Jacob, MD
Section Chief Non-Invasive Imaging
Penn Medicine/Lancaster Health
Lancaster, Pennsylvania

Irfan S. Shafique, MD
Director, Dedicated Imaging
Baltimore, Maryland

Charles S. White, MD
Professor of Radiology
University of Maryland School of Medicine
Baltimore, Maryland

OTHER IMPORTANT INFORMATION

It is preferred that you arrange your work schedule so that you have some time during the week following the course to complete those additional cases so that you are able to get the best feedback possible from course instructors, who will be available that week.

There is a learning curve that must be overcome to master cardiac CT, and the amount of material to be covered is large. **Therefore, these days will be long (8:30 AM – 7:30 PM) and it is expected that participants will be present for the entire week.** During "inperson" courses, breakfast and lunch will be provided on site and an evening event, to include dinner, will be arranged on Wednesday during the course. These meals and events are included with the registration fee.

SCCT
SOCIETY OF CARDIOVASCULAR COMPUTED TOMOGRAPHY
Endorsed Course

Endorsed by the Society of Cardiovascular Computed Tomography, the professional society devoted exclusively to Cardiovascular CT.

General Information (For Live Activity only)

LOCATION

Johns Hopkins Bayview Medical Center
4940 Eastern Avenue, Baltimore, Maryland 21224

Conveniently located off Interstate 895, the Johns Hopkins Bayview Medical Center is the site of the meeting. Directions to campus parking will be sent with your confirmation notice, or visit our website to access this information **www.jhucardiacct.org** Handicapped parking is available. Johns Hopkins is smoke-free.

REGISTRATION

The select dates below are available by appointment only. Registration is accepted on a first payment-received basis. Please call **Suzie Orr** at (410) 550-0845 or e-mail **sorr@jhmi.edu** to check availability and make your reservation.

2021 *(Internet Live)*	2022	
September 20-24	January 10-14 *(Internet Live)*	April 5-9
November 1-5	February 7-11 *(Internet Live)*	May 24-28
December 6-10	March 7-11 *(Internet Live)*	June 21-25

WHY THIS COURSE?

- The longest running course, with consistently excellent reviews from attendees
- The only university-based course currently available
- Johns Hopkins CME credits
- Continuous close supervision by and interaction with senior Johns Hopkins faculty
- All lectures by University faculty
- New CTA applications
- All prior students available for references
- One student per workstation
- Remote access to JHU workstation from your home or office for three months
- Special evening event

FEES

Methods of Payment: We require full payment prior to the start of the activity. The registration fee includes instructional materials, continental breakfast, refreshment breaks and lunch.

Practicing Physicians . . . . . $ 6,595
Residents*/Fellows* . . . . . $ 3,447
**with verification of status*

You will receive a confirmation by e-mail. If you have not received it by **six calendar days out**, call (410) 502-9636 to confirm that you are registered. A transcript of attendance will be available upon attestation of your credit hours and submission of the post activity online evaluation.

The Johns Hopkins University reserves the right to cancel or postpone any activity due to unforeseen circumstances. In this event, the University will refund the registration fee but is not responsible for travel expenses. Additionally, we reserve the right to change the venue to a comparable venue. Under such circumstances registrants will be notified as soon as possible.

LATE FEE AND REFUND POLICY

A late fee applies to registrations received after 5:00 p.m. ET on **six- calendar days prior to activity starting date**. A handling fee of ($25 internet live) or ($50 live) will be deducted for cancellations. An additional fee may apply for cancellation of other events, including workshops and social activities. Refund requests must be received by fax or mail by **sixth calendar day out**. No refunds will be made thereafter. Transfer of registration to another Johns Hopkins activity in lieu of cancellation is not possible.

SYLLABUS

All registrants will receive a binder with the slides and paper for note taking and digital version of lectures. This is included in the cost of your registration. A pdf of the slides is available upon request.

SOCIAL EVENT

A social event is planned for Wednesday evening. Details will be provided with your confirmation notice.

HOTEL AND TRAVEL INFORMATION (For Live Activities only)

Participants are responsible for making their own travel and lodging arrangements. A list of recommended hotels will be provided with your confirmation notice. Please call **Suzie Orr** at (410) 550-0845 for suggestions about hotels for the specific week that you are interested in, as clustering of participants may allow us to arrange complimentary transportation to and from Johns Hopkins Bayview Medical Center each day.

HOW TO OBTAIN CREDIT

Post activity, an online evaluation will be available to attendees to evaluate the activity and individual presentations and to identify future educational needs. Upon completion of the evaluation, the learner must attest to the number of hours in attendance. Credits earned will be added to the learner's transcript and immediately available for print. **The last day to access the evaluation and attest to your credits is 45 days post activity.**

An outcome survey will be sent to all physician attendees within two months post activity to assist us in determining what impact this activity had on the learner's practice.

EMERGENCY CALLS

During the days of this activity only, direct emergency calls to **Suzie Orr,** (410) 550-0845. Messages will be posted for participants.

AMERICANS WITH DISABILITIES ACT

The Johns Hopkins University School of Medicine fully complies with the legal requirements of the ADA and the rules and regulations thereof. *Please notify us if you have any special needs.*

FOR FURTHER INFORMATION

https://hopkinscme.cloud-cme.com/aph.aspx

Register by Phone . . . . . (410) 550-0845
Register by Fax . . . . . (866) 510-7088
Confirmation/Certificates/Transcripts . . . . . (410) 502-9636
General Information . . . . . (410) 955-2959
E-mail the Office of CME . . . . . **cmenet@jhmi.edu**

Follow us on Twitter: **twitter.com/HopkinsCME**
Facebook: **facebook.com/HopkinsCME**

Check out our mobile app CloudCME.
Organization Code: **HopkinsCME**

For website and CloudCME mobile app technical difficulties, email: **cmetechsupport@jhmi.edu**

Sponsoring Department Cardiology at Bayview Website: **jhucardiacct.org**
For general information, please visit the activity webpage at: **https://hopkinscme.cloud-cme.com/aph.aspx**

You will receive an email notification to complete the evaluation form and to attest to the number of hours in attendance.

REGISTRATION FORM

COURSE NUMBER 80056194/33089

Cardiac CT Practicum: The Total Experience

September 20, 2021 - June 17, 2022

To Register:
By phone: (410) 550-0845 **By fax:** (866) 510-7088

Or mail this form to the Johns Hopkins University, Office of Continuing Medical Education, 720 Rutland Avenue, Turner Room 20, Baltimore, Maryland 21205-2195. Include e-check or credit card information below.

FULL PAYMENT IS REQUIRED PRIOR TO THE START OF ACTIVITY.

☐ I am a Johns Hopkins speaker for this activity. *Please type or print clearly*

Last Name	First Name	M.I.
Highest Degree / Primary Specialty		Hopkins Faculty/Staff Only –JHED ID
For Physicians Only: NPI – 10 digits	State License #	State of License
ABIM #:	Birth Month:	Birth Day:
☐ I provide permission for my MOC completion information to be shared and transmitted to the Accreditation Council for Continuing Medical Education (ACCME).		
Organization	Mailing Address	
City	State / ZIP + 4 Code	Country
Daytime Telephone	Fax Number	
E-Mail (required)		

☐ Check here if you wish to receive e-mail notices about upcoming CME activities.

What do you hope to learn by attending this activity?_____

_____

Please notify us if you have any special needs. _____

Registration Fees: 2021-2022 Courses

☐ Physicians $6,595
☐ Residents*/Fellows* $3,447
**with verification of status*

The registration fee includes instructional materials and food and beverage. For registrations received after 5:00 p.m. ET on the **six calendar days prior to activity starting date**, include a late fee: $25 internet live/$50 in-person class.

Total amount $_____

Payment Type:

☐ e-Check: Routing #:_____ Account #:_____

JHU Faculty/Staff Only: If you are using your Tuition Remission Benefit or an ION budget, please upload your fully completed and approved form in the payment section of the online activity link above.
☐ TR Form: **hr.jhu.edu/wp-content/uploads/2019/03/trffacandstaff.pdf**
☐ ION Form: **hopkinscme.edu/migration/IonRequest.pdf**

☐ Credit Card: ☐ VISA ☐ MASTERCARD ☐ DISCOVER ☐ AMEX

Card # _____ Exp. Date_____

Billing Zip Code _____ Security Code _____

Name on Card _____

Signature and Date_____