COURSE DESCRIPTION:
The Focused Echocardiography Course has been specifically developed to provide residents, fellows, and practicing physicians in various clinical settings with basic and advanced cardiac ultrasound imaging and interpretation skills. Course participants will develop or significantly enhance their cardiac ultrasound imaging skills, to be able to apply them during the evaluation and management of critically ill patients. The course will meet the educational goals for both beginners and those with more advanced skills, using current evidence-based scanning protocols and algorithms. Participants will have ample opportunity to practice their image acquisition and interpretation skills in a state-of-the-art simulation center. The course objectives will cover basic and advanced principles of focused echocardiography, and not comprehensive echocardiography.

COURSE OBJECTIVES:
1. At the completion of this course, participants should be able to: Select the appropriate transducer and system presets for a cardiac ultrasound examination
2. Describe the transducer orientation for all the basic transthoracic echo windows
3. Demonstrate the ability to obtain images in the parasternal long and short axes, apical windows (4, 5, 2, 3), subcostal, inferior vena cava, and suprasternal windows (PASS protocol)
4. Demonstrate a basic understanding of Doppler ultrasound, including color, pulsed, continuous wave Doppler, and their spectral waveforms
5. Interpret basic M-mode waveforms, and discuss some of their applications in focused echocardiography
6. Recognize images of valvular insufficiency
7. Demonstrate the ability to estimate right atrial pressure using IVC assessment in a spontaneously breathing patient
8. Demonstrate the ability to evaluate a patient for pericardial effusion, and recognize echo findings of tamponade
9. Demonstrate the ability to perform basic cardiac calculations to determine ejection fraction and cardiac output
10. Recognize images representing right ventricular volume/pressure overload, and discuss some of their clinical applications
11. Develop a systematic approach to evaluate the cardiac status of the critically ill patient
12. Discuss some of the differences between focused echocardiography and comprehensive echocardiography

Please download a copy of the ICU handbook after paying for course to review prior to attending course

henryford.com/ultrasounduniversity
**SCHEDULE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00-7:30am</td>
<td>Check-in /Late registration / Breakfast</td>
</tr>
<tr>
<td>7:30-7:50am</td>
<td>Pre-test</td>
</tr>
<tr>
<td>7:50-8:00am</td>
<td>Welcome</td>
</tr>
<tr>
<td>8:00-8:30am</td>
<td>Cardiac Ultrasound Physics / Doppler / Instrumentation / knobology</td>
</tr>
<tr>
<td>8:30-9:00am</td>
<td>PASS Protocol (PLAX/PSAX/4C/5C/A2C/A3C/subcostal/IVC/suprasternal)</td>
</tr>
<tr>
<td>9:00-9:30am</td>
<td>Cardiac Physiology (Wiggers Diagram) / M-mode/color Doppler / pulsed wave Doppler / Continuous wave Doppler / Tissue Doppler basics</td>
</tr>
<tr>
<td>10:00-noon</td>
<td>Hands-on Scanning</td>
</tr>
<tr>
<td>12:00-1:00PM</td>
<td>Lunch Break</td>
</tr>
<tr>
<td>1:00-1:20pm</td>
<td>Volume Assessment with clinical applications</td>
</tr>
<tr>
<td>1:20-1:40pm</td>
<td>Pericardial Effusion / Tamponade Assessment</td>
</tr>
<tr>
<td>1:40-2:00pm</td>
<td>Right Heart Strain / Cardiac Arrest Assessment</td>
</tr>
<tr>
<td>2:00-2:30pm</td>
<td>Contractility / Systolic, Diastolic Dysfunction / Ejection fraction / Cardiac output calculations</td>
</tr>
<tr>
<td>2:30-3:00pm</td>
<td>Clinical cases - Review of cardiac pathology</td>
</tr>
<tr>
<td>3:00-4:40pm</td>
<td>Hands-on Scanning</td>
</tr>
<tr>
<td>4:40-5:00pm</td>
<td>Evaluation / Post-test / Questions</td>
</tr>
<tr>
<td>5:00PM</td>
<td>Adjourn</td>
</tr>
</tbody>
</table>

**2018 EVENTS**

- **March 8th - 9th**: The International Point of Care Ultrasound
- **March 13th**: Ultrasound Guided Peripheral IV Access
- **May 4th**: Focused Echocardiography Course
- **June 19th**: Ultrasound Guided Peripheral IV Access
- **September 11th**: Ultrasound Guided Peripheral IV Access
- **Sept 13th - 14th**: The International Point of Care Ultrasound
- **Oct 19th**: Focused Echocardiography Course
- **November 6th**: Ultrasound Guided Peripheral IV Access

**CONTRIBUTORS**

**FULLY SUPPORTED COURSE**

- *HONORARY FACULTY & EXTERNAL ADVISORY COMMITTEE*
  - Luca Neri MD, Critical Care, Italy
  - Enrico Storti MD, Critical Care, Italy
  - Andrew Kirkpatrick MD, Surgery, Canada
  - Ashok Sargysan MD, USA
  - Gabriele Via MD, Anesthesiology, Italy
  - Kathleen Garcia FASE, RVT, USA
  - Jack Butler, Multimedia Specialist
  - Alberta Spreafico, Outreach Development

**REGISTRATION**

- Advanced registration is required. The fee is non-refundable and cannot be reduced for partial attendance. Please register at [https://hfhs.eventsair.com/CEPortal/hfhs/cme](https://hfhs.eventsair.com/CEPortal/hfhs/cme) and look for the link “Focused Echocardiography Course”

**FEES:**

- Physicians: $650
- Residents & Fellows: $400
- Other Allied Health: $400
- Included is “The ICU Ultrasound Pocket Book”

**ACCOMMODATIONS**

- **The Inn On Ferry Street**
  - 84 East Ferry Street, Detroit, MI 48202
  - Phone: 313.871.6000
  - Fax: 313.871.1473
  - Email: innonferrystreet.com

- **Double Tree Suites by Hilton**
  - (313) 424-1367
  - Please contact Cindy France for further information
  - Office: 313-916-9130
  - Fax: 313-916-7437
  - Email: cfrancel@hfhs.org