

POINT-OF-CARE ULTRASOUND Certificate Program

Summary

The Point-of-Care Ultrasound Certificate Program (POCUS-CP) is designed for students with a strong interest in developing an additional expertise in the use of ultrasound at the bedside as an integrated part of their pre-clinical and clinical experience.

GOALS/ OBJECTIVES

By the end of the four-year program, participating students will be able to:

- Demonstrate understanding of ultrasound physics
- Demonstrate proficiency in acquiring and interpreting ultrasound images in the following core areas
 - Cardiac
 - Pulmonary
 - Neck
 - Vascular
 - Abdominal
 - Musculoskeletal
 - Procedural
- Demonstrate proficiency as a peer-educator
- Understand the indications for and limitations of POCUS
- Demonstrate ability to integrate POCUS into a variety of clinical settings

REQUIREMENTS

Hands-on Small Group Sessions: The majority of the didactic portion of the certificate program takes place during the MS-2 year, in 1-hour small group sessions led by a faculty member, senior resident, fellow, or (in a few years) a senior POCUS-CP student. The maximum student to faculty ratio will be 4-to-1. Students will review a brief (5-10 minute) video on the topic of the session prior to attending to maximize hands-on scanning time. Sessions will use a combination of standardized patients and peer scanning.

Scanning Shifts: Throughout their 4 years, students will scan with various faculty from across our departments giving them a unique perspective on clinical care and integration of POCUS in clinical management from early in their pre-clinical years.

Faculty Mentor: Students will maintain regular contact with a knowledgeable faculty member who has interest or experience in the area of POCUS. The faculty mentor will oversee the student's academic progress.

POCUS Workshops: Students will attend quarterly informal meetings of the Ultrasound in Medicine Interest Group to discuss developing issues related to POCUS in undergraduate medical education, organizing for Pitt SonoGames, discussion of journal club topics, and brainstorming for new ideas and program improvement. Sessions in the spring will be coordinated by senior students as a means of sharing their "scholarship." Each workshop will focus on ultrasound of a different region or organ system.

Elective Rotations: Students will participate in the ultrasound mini-electives as first year students, and POCUS related electives during the fourth year

Portfolio: Students will assemble an electronic portfolio of their scans using Q-Path, an archival system that is integrated with PACS across hospital sites. They will also maintain evidence of their participation as instructors and mentors to newer students as they advance in their training.

TIMELINE

The requirements for the Certificate Program span across all four years of medical school and include the following areas: Content, Mentorship, and Clinical Experience.

Opportunities for these requirements are delineated by year:

Year 1

- Ultrasound in Medicine Interest Group (UMIG) meetings
- Participation in one ultrasound basics mini-elective in either the fall or spring
- At end of year 1 apply for POCUS-CP

Est. Time required: 6 hours

Year 2

- 9 ultrasound laboratory sessions, 7 in Fall, 2 in Spring
- 4 Scanning Shifts
- Ultrasound in Medicine Interest Group (UMIG) meetings
- 2 POCUS practical exams at end of Fall and Spring terms

Est. Time required:

1.5 hours of online module review
11 hours of hands-on scanning lab
4 hours UMIG meetings
8 hours of patient scanning with faculty in various departments
(24.5 hrs)

Year 3

- Continued attendance at journal clubs, UMIG meetings when possible
- 2 scanning shifts
- Demonstrate clinical use of POCUS in core clerkships (Specialty Care, OB/GYN, Anesthesiology, Surgery)
- Regular meetings with faculty mentor

Est. Time required:

4 hours UMIG meetings
6 hours scanning shifts

Year 4

- Continued attendance at journal clubs, UMIG meetings
- Instructors for of UMIG workshops, Lab sessions for MS-2 POCUS-CP students
- At least one elective related to POCUS
- Regular meetings with faculty mentor

At graduation upon successful completion of all requirements, students will receive a Certificate of Excellence in Clinical Ultrasound to be awarded with their diploma.