FOURTH YEAR ELECTIVE TITLE
ELECTIVE IN EMERGENCY DEPARTMENT
BEDSIDE ULTRASOUND

COURSE NUMBER
EMED 9010

LOCATION
ROBERT WOOD JOHNSON
UNIVERSITY HOSPITAL

ELECTIVE DIRECTOR
RAJESH GERIA, MD, RDMS

ELECTIVE FACULTY
FACULTY, DEPARTMENT
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BLOCKS AVAILABLE
1, 2, 3, 4, 5, & 6

DURATION/WEEKS
4 Weeks

HOURS PER WEEK
40 (4 WEEK)

STUDENTS
MS IV
Max 1

LECTURES/SEMINARS
Yes

OUTPATIENT
Yes

INPATIENT
No

HOUSESTAFF
No

NIGHT CALL
No

WEEKENDS
No

LAB
No

EXAM REQUIRED
No

OVERALL EDUCATIONAL GOAL OF CLERKSHIP
The overall goal of this elective is for the student to develop skills needed to perform and interpret bedside ultrasound in the Emergency Department

OBJECTIVES
Letters in parenthesis refer to which of the six core competencies this objective addresses: Medical Knowledge (MK), Patient Care (PC), Professionalism (P), Communication and Interpersonal Skills (C), Practice Based Learning and improvement (PBL), and Systems Based Practice (SBP)

1. Demonstrate a basic understanding of the role of Emergency Department Ultrasound in patient care as defined by the American College of Emergency Physicians Section of Emergency Ultrasound. (PC,MK, SBP)

2. Demonstrate skill in performing the following basic Emergency Department Ultrasound applications in the emergency department clinical setting: Aorta, Cardiac, E-FAST, Vascular access, Renal, Gallbladder, Pelvic. (PC,MK)

3. Demonstrate basic understanding of image acquisition protocols of all basic Emergency Department Ultrasound applications. (PC, MK)

4. Demonstrate basic understanding of Emergency Department Ultrasound departmental QA process (i.e. logging in and recording scans, entering patient data into machine, following up on confirmatory studies, grading scans done by faculty). (SBP)

5. Use patient care experiences where Emergency Department Ultrasound was performed and influenced management to improve their understanding of why this skills set is critical to the practice of Emergency Medicine. (PBL)
**BRIEF DESCRIPTION OF ACTIVITIES**
1. Students will receive didactic instruction via online video podcasts prior to beginning the elective.
2. Students will receive bedside teaching and perform ultrasound in the Emergency Department (scan shift) under the oversight of the Director of Emergency Department Ultrasound program (1 shift/week, approximately 5 hours).
3. Students will do at least one additional scan shift per week with another faculty member of the Emergency Department who is experienced and/or credentialed in the performance of Emergency Department Ultrasound by the hospital (4 hours/month).
4. Students will independently scan in Emergency Department from 9am – 5pm, Monday-Friday. The student will do this under the supervision of other faculty members in the department on patients that need ultrasounds. These scans will be reviewed by Director of Emergency Department Ultrasound program during tape review sessions (see below).
5. Students will participate in image review sessions with Director of Emergency Department Ultrasound program as part of the departmental QA process. During this time the individual student scans from prior week will be reviewed (2 hours / week).
6. Students will perform pelvic scanning on a phantom model prior to being allowed to scan real patients.
7. Students will perform ultrasound-guided intravenous lines on phantom models prior to being allowed to perform on real patients.
8. Students will be given resources and assigned reading for independent study.

**METHOD OF STUDENT EVALUATION**
Students will be evaluated by attending faculty in each of the below activities. To receive a passing grade in this course, the student must:

*The numbers in parenthesis at the end of each requirement refer to the course objectives being evaluated.*

1. Work all scheduled ER scan shifts. (2, 3)
2. Watch department ultrasound podcasts prior to beginning of elective. (1-6)
3. Attend all didactic sessions with Director of Emergency Department Ultrasound (1-6)
4. Attend image review sessions with Director of Emergency Department Ultrasound (3, 6)
5. Complete scan worksheets using qpath web-based image archival system. (2)

Written and Practical Exam will be offered but OPTIONAL

**ARE THERE ANY PREREQUISITES FOR THIS ELECTIVE?** Yes, Medicine and Surgery are required; Ob/Gyn is recommended

**IS THIS ELECTIVE AVAILABLE TO THIRD YEAR MEDICAL STUDENTS AS WELL?** Yes, but only as a 4-week elective.