ANES 860: General Anesthesiology

Course Director: Lauren Moore, MD
Email: moorelb@musc.edu

Course Coordinator: Laura Seeback Matthews
Telephone #: 843-792-2437
Email: seeback@musc.edu

---

Does this rotation accept visiting students? ☒ YES ☐ NO

COURSE DESCRIPTION:
The course is an introduction to general anesthesia management, emphasizing the anesthetic subspecialties of pediatric, neurosurgical, cardiothoracic, obstetrical anesthesia, and pain management. The student will acquire a working knowledge of commonly used anesthetic agents, techniques and airway management. Students are expected to behave as senior students, helping with set-up and prepared for all cases with a plan. Only students seeking a residency in Anesthesia will be approved to schedule a rotation prior to January.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Discuss cardiovascular and pulmonary physiology as applied in a variety of clinical settings and disease processes and discuss clinically applicable pharmacokinetics and pharmacodynamics across various pharmacologic therapies. (MK5, PC1, PC2)
2. Start an intravenous line and have been guided through the process of intubations, place LMAs (laryngeal mask airways), start an arterial line. (PC7, MK4, PC6)
3. Discuss the treatment of acute pain through various modalities, including oral, intravenous, neuraxial, and regional techniques, as well the ethics involved in the treatment of pain. (MK8, PC3, SL2)
4. Communicate basic Advanced Cardiac Life Support principles with particular attention placed on airway management and understand the basics of Difficult Airway Management as demonstrated in a simulation course. (MK1, PR2, IP3, PD1, PL2)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Participation in weekly assignments in the operating rooms and a 5-10 minute oral presentation on one of the patients.
2. Attendance at Tuesday morning grand rounds, Tuesday afternoon simulation sessions (led by attending anesthesiologist), Wednesday afternoon resident lectures, Thursday afternoon medical student lectures (led by an anesthesia resident).
3. Completion of at least 1 night of call in the main operating rooms.
4. Completion of assigned reading chapters each week associated with required lectures.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with potential multiple conditions:
1. Patients with cardiovascular disease undergoing surgery
2. Patients undergoing labor epidural or c-section
3. Patients undergoing surgery related to trauma
4. Pediatric patients

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation of clinical skills performance by residents and attendings each day and discussion of didactic/reading topics, with application to daily clinical cases.
3. An oral presentation on a patient, including medical problems, type of surgery, anesthesia, and other interesting issues.
4. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☒ YES ☐ NO
Students are expected to take call when their assigned resident is on call, with the exception of Friday-Monday night call.
COURSE DESCRIPTION:
Fourth-year medical students will work with interdisciplinary critical care teams lead by both Pulmonary Critical Care and Anesthesia Critical Care physicians to learn about evaluation and management of acute care illness in both medical and surgical patient populations. Students will be directly involved in assessing, stabilizing, and treating critically ill patients with a variety of complex diseases with a focus in but not limited to Heme/Onc and GI. With supervision and guidance, students will be primarily responsible for their patients and will gain experience in developing clinical plans for critically ill patients. Students will become familiar with the basics of mechanical ventilation, intravenous fluids, shock and vasoactive medications, surgical emergencies, procedural indications and end-of-life care issues in the ICU. Students will observe and potentially perform invasive procedures.

Students will participate in a mandatory orientation day to cover essential critical care subject matter. Participation is expected at all simulation-based procedural skills modules unless absence is excused. Students will be expected to work at least 20 shifts. Make-up dates for unexcused absences will take place the final weekend of the rotation and then at the discretion of the unit director. There is no expectation of night call, but it can be offered by the unit director as an integral learning experience or as make-up for unexcused absences. This rotation is recommended for students with an interest in Anesthesiology, Emergency Medicine, Family Medicine, Internal Medicine, Surgery.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Assess a critically ill patient and develop a timely, prioritized, and evidence-based plan for initial stabilization. (PC1, PC3)
2. Apply knowledge to develop evidence-based clinical plans for critically ill patients, including appropriate use of hemodynamic monitoring, application of ventilator modes and settings, and initiation and titration of vasomotor support. (MK4, MK5, PC3, PC6)
3. Be able to obtain Informed Consent for diagnostic and therapeutic tests and procedures including verbalization of risks, benefits and alternatives. (PC3, PC7, ICS1, SBP3)
4. Participate in and potentially perform procedures under direct supervision, including placement of arterial lines and central venous catheters while learning proper sterile technique. (MK8, PC7)
5. Demonstrate skills in the utilization of bedside Point-of-Care ultrasound for diagnosis in appropriate ICU patients. (PC1, MK5)
6. Identify relevant information in the primary medical literature regarding their patients’ disease states, and incorporate information from the literature into presentations and documentation. (PL3, CS5)
7. Demonstrate effective and professional interpersonal and communication skills, and model ethical behavior. (CS1, PR1, PR2)
8. Demonstrate empathy and discuss end of life issues with the patient and family including giving bad news. (PC1, PC3, CS1, CS2, CS3, PR1, PR2)
9. Perform a basic family meeting to discuss goals of care including discussing and obtaining code status. (PC1, PC4, CS1, CS2, CS3, CS4, PR1, PR2)
10. Work within a multidisciplinary team on daily rounds as an effective team member including mitigating patient risk and early identification of potential medical errors. (PR1, SL4, IP2, IP3, IP4)
11. Understand quality improvement metrics in the ICU and the team’s role in reducing hospital acquired infections including VAP, CAUTI, CLASBI, etc. (MK7, PR4, PL4, PL5, PL6, SL3, IP4)
12. Concisely summarize a patient’s critical illness and hand off important clinical information efficiently to other team members and consultants. (CS1, CS5, IP1, IP2, IP3, PC6)
13. Demonstrate an understanding of the pharmacology of sedation in the ICU including the prevention and treatment of pain, agitation and delirium (MK2, MK3, MK4, MK5, PC3, PL4)
14. Demonstrate a knowledge of airway management devices including high flow nasal cannula, NIV, BVM, LMA and endotracheal intubation. (MK1, MK4, MK8, PC6, PC7, CS1, CS2, PR3, PL2)
15. Describe the basic aspects of antimicrobial treatment and rational use of anti-infective therapeutic agents, as well as the negative patient complications of antimicrobial overuse. (PC3, PC6, PL3, PL6)
16. Understand the differential diagnosis, evaluation and management for Acute Kidney Injury (AKI) through lab interpretation and radiological studies including the indications for acute dialysis therapy. (MK1, MK3, MK4, MK5, MK7, PC1, PC2, PC3, CS1)

18. Write complete and succinct systems based medical plan with H&Ps and daily progress notes in EPIC. (MK3, MK4, MK5, PC2, PC3, PC6, CS1, CS3, PR1, PR4, PR5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:

1. Students will participate in all aspects of care including initial assessment, diagnosis, management and patient/family communication and decision making for critically ill patients.
2. Students will be expected to present their patients on rounds, and patient-centered clinical and educational topics will be discussed.
3. Students will receive instruction in ventilator management, central line use, and invasive and non-invasive hemodynamic monitoring.
4. Students will learn about pharmacotherapy in the ICU, including vasopressors, antibiotics, and sedatives, and analgesic medications.
5. Students will have the opportunity to learn about and potentially perform a variety of procedures, including central venous catheter placement, arterial catheter placement, paracentesis, and thoracentesis.
6. Students will learn the principles of bedside point-of-care ultrasonography including thoracic, abdominal and bedside echocardiography.
7. Students will attend and participate in didactic teaching session and simulation modules as part of the curriculum.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with conditions from all organ systems, including:

1. Acute hypoxic/hypercarbic respiratory failure due to pneumonia, acute respiratory distress syndrome, COPD, or other processes
2. Shock due to distributive pathophysiology (e.g., septic shock), cardiogenic compromise, obstructive mechanisms, or hypovolemia
3. Acute renal failure including hyperkalemia, pulmonary edema, refractory acidemia and necessitating acute hemodialysis
4. Acute surgical emergencies
5. Hemorrhagic shock due to gastrointestinal bleeding, retroperitoneal bleed, or intra-peritoneal bleeding.
6. Neurologic conditions such as pain management, coma, encephalopathy, CVA and delirium

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:

1. E*Value Clinical Performance Evaluation
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Attending physicians and fellows will provide students with a verbal evaluation at end of rotation.
4. Students will receive a mid-point evaluation of their performance.
ANES 865: Pain Management

**Course Director:** Meron Selassie, MD; and Gabe Hillegass, MD  
Email: selassit@musc.edu; hillegas@musc.edu  

**Course Coordinator:** Laura Seeback Matthews  
Telephone #: 843-792-2437  
Email: seeback@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>0</td>
<td>Block 3</td>
<td>1</td>
<td>Block 5</td>
<td>1</td>
<td>Block 7</td>
<td>1</td>
</tr>
<tr>
<td>Block 2</td>
<td>1</td>
<td>Block 4</td>
<td>1</td>
<td>Block 6</td>
<td>1</td>
<td>Block 8</td>
<td>1</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
The pain management rotation is an opportunity for the student to learn the fundamentals of pain and pain management. The rotation is intended to provide an overview of the neuroanatomy, physiology, pathology, diagnosis and treatment of pain. Students are exposed to a wide variety of disease processes requiring pain management and these include acute, chronic, and cancer pain in the adult and pediatric populations.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Discuss the types of pain and classification of pain. (MK1, MK2)
2. Demonstrate understanding of pharmacology of local anesthetics, opioids and neuropathic pain medications. (MK5, MK2)
3. Identify the landmarks and techniques for performing, indications, risks, and complications for nerve blocks and neuraxial procedures in pain treatment. (MK7, MK8)
4. Demonstrate knowledge of the psychosocial aspects of chronic pain. (MK6, MK8)
5. Demonstrate understanding of multimodal therapy in delivery of comprehensive pain care. (MK7, MK8)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Attendance at Tuesday morning grand rounds, Tuesday afternoon simulation sessions (led by attending anesthesiologist), Wednesday afternoon resident lectures, Thursday afternoon medical student lectures (led by an anesthesia resident) optional.
2. Attendance and participation in rounds and discussions of patients.
3. Evaluations of and interaction with the patients.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Acute pain
2. Chronic pain
3. Cancer pain

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation of the student’s interviewing and examining of the patients.
3. Following each patient interaction, the student will give an oral presentation describing the findings along with a diagnosis and treatment plan.
4. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☐ YES ☑ NO
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
Students will observe and participate in the diagnosis and management of a wide variety of dermatologic diseases. Preference for rotations in blocks 1-5 will be given to those students entering Dermatology as their chosen specialty.

**LEARNING GOALS AND OBJECTIVES:** At the completion of this clinical rotation, students should be able to:
1. Perform a complete skin examination. (CS1, CS2, CS3, CS4, CS5, MK1, MK4, PC1, PC 2, PC3, PC4, PC5, PR1, PR2, PR3, PR4, PR5, IP1)
2. Diagnose and treat common skin conditions. (CS1, CS2, CS3, CS4, CS5, MK1, MK4, PC1, PC 2, PC3, PC4, PC5, PR1, PR2, PR3, PR4, PR5, IP1)
3. Describe basic dermatologic procedures. (MK1, PC6, PC7, IP1)
4. Discuss the basics of dermatologic therapy. (CS1, CS2, CS3, CS4, CS5, MK1, MK4, PC1, PC 2, PC3, PC4, PC5, PR1, PR2, PR3, PR4, PR5, IP1)
5. Identify which patients need referral to a dermatologist. (PC4, IP1)
6. Demonstrate the ability to use proper terminology to describe skin lesions or rashes. (MK1, PC4)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Independent completion of the American Academy of Dermatology 4-week medical student core curriculum (online).
2. Participation in inpatient rounds.
3. Participation in resident clinics at the VA and MUSC.
4. Review of skin pathology slides at the multi-headed teaching microscope in the dermatopathology lab with Dr. Elston, Dr. Metcalf, and Dr. Ralston.
5. Meet with the course director every Wednesday from 9:00-11:00 am for teaching sessions.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Non-melanoma skin cancers
2. Acne
3. Psoriasis
4. Atopic Dermatitis
5. Dermatophyte Infections

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Written exam and clinical images quiz at the end of the rotation.
3. 10-minute presentation on a dermatologic topic of the student's choice.
4. Attending and resident evaluation of performance during clinical encounters.
5. A mid-point evaluation form will be completed half way through the rotation to assess the student on their performance.

Will students be expected to participate in call? ☑ YES ☐ NO
EMED 843: Wilderness Medicine

**Course Director:** Simon Watson, MD, and Amanda Price, MD
Email: watsonsc@musc.edu, selden@musc.edu

**Course Coordinator:** Ingrid Schneider
Telephone #: 843-792-0269
Email: schneider@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td></td>
<td>Block 3</td>
<td></td>
<td>Block 5</td>
<td></td>
<td>Block 7</td>
<td></td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td></td>
<td>Block 4</td>
<td></td>
<td>Block 6</td>
<td></td>
<td>Block 8</td>
<td></td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
</tr>
<tr>
<td>Block 9B</td>
<td></td>
<td></td>
<td></td>
<td>Block 9</td>
<td></td>
<td>Block 9B</td>
<td></td>
</tr>
</tbody>
</table>

### Does this rotation accept visiting students?
- [ ] YES   - [X] NO

### COURSE DESCRIPTION:
Students will learn to save lives in the wilderness while earning Advanced Wilderness Life Support (AWLS) Certification. The course uses structured didactic sessions and hands-on practical instruction in a variety of outdoor settings to teach the diagnosis and initial management of the most common wilderness injuries and illnesses. During this course, the first week is spent in Charleston, the second week is spent in Boone, NC at Camp Broadstone. There is a required course fee that will cover the Advanced Wilderness Life Support certification, as well as some of the outdoor excursions and the costs of the camp. This fee will not exceed $600. Students are required to complete a waiver form. All students will be expected to be able to engage in moderate physical activity. Students that are pursing Emergency Medicine as a career and members of the Wilderness Interest group will have first priority for this course. (Please note: No refunds will be given within 30 days of the date of the start of the rotation. If you need to cancel within the 30-day period, your payment can be applied to a future Advanced Wilderness Life Support (AWLS) course of your choosing to be used within two years of the date of the canceled course. All refunds are subject to a 10% processing fee.)

### LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate the correct steps in patient assessment in the wilderness. (MK3, PC1, IP3)
2. Describe the initial treatment guidelines for a variety of conditions in the wilderness. (SL1, PC3)
3. Describe the management of common medical and trauma emergencies and urgencies in the wilderness while awaiting definitive care. (PC4, MK8)

### INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Attend didactic sessions to gain medical knowledge about wilderness medicine.
2. Attend practical sessions to gain hands-on experience in patient assessment and stabilization.
3. Prepare and present to the group a lecture on a chosen topic.

### PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions:
1. Students will learn and practice patient assessment and stabilization skills utilizing learners in the scripted roles of standardized patients.

### EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods:
2. Written exam at the end of elective.
3. Practical exam at the end of elective.
4. Evaluation of content and presentation of lecture.
5. Narrative description based on learner participation and teamwork skills.

Will students be expected to participate in call?
- [ ] YES   - [X] NO
EMED 846: Medical Toxicology

Course Director: Nicholas Connors, MD
Email: connorsn@musc.edu

Course Coordinator: Melanie Pigott
Telephone #: 843-876-8023
Email: pigott@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>Block 3</td>
<td>Block 5</td>
<td>Block 7</td>
<td>Block 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 1A</td>
<td>Block 3A</td>
<td>Block 5A</td>
<td>Block 7A</td>
<td>Block 9A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td>Block 3B</td>
<td>Block 5B</td>
<td>Block 7B</td>
<td>Block 9B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>Block 4</td>
<td>Block 6</td>
<td>Block 8</td>
<td>Block 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2A</td>
<td>Block 4A</td>
<td>Block 6A</td>
<td>Block 8A</td>
<td>Block 10A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td>Block 4B</td>
<td>Block 6B</td>
<td>Block 8B</td>
<td>Block 10B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☒ YES ☐ NO

**COURSE DESCRIPTION:**
Poisoning is responsible for a significant portion of Emergency Department patient presentations and toxic effects of prescribed medications can be problematic in patients presenting with other illnesses. Combining lectures, case presentations, primary literature review, and bedside teaching we will review the most common and most serious toxic exposures due to medications, drugs of abuse, plants, and venomous creatures developing a standard approach to the poisoned patient. Students will take call and see patients in the Emergency Department who have potentially toxic exposures and present these cases to the group the following day.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Recognize and suggest treatment for patients with toxicologic illnesses (MK3, PC3, PL3)
2. Understand the pathophysiology of common toxins and the antidotes and treatments used to counter their effects (MK2, PC3, PL3)
3. Risk stratify patients based on the epidemiology of poisonings and individual patient presentations (MK7, PL1)
4. Utilize the regional poison control center and understand its limitations (SL1, IP3)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Participate in small-group discussions of particular toxins and the associated clinical presentations.
2. See patients at the bedside and present a case succinctly and accurately to colleagues.
3. Read and analyze primary literature regarding topics in Medical Toxicology.
4. Present a focused twenty-minute lecture reviewing a specific toxicological issue.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Medication overdose
2. Illicit or street drug toxicity
3. Medication adverse drug effect
4. Environmental exposures and envenomations

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods.
2. Moodle quizzes during the rotations and an exam at the completion of the two weeks.
3. Bedside evaluation and formulation of a differential diagnosis, recommended evaluations and interventions, and presentation of the case to colleagues.
4. Presentation to the group of rotators on a toxicologic topic of each student’s choice.

Will students be expected to participate in call? ☒ YES ☐ NO
Does this rotation accept visiting students? ☒ YES ☐ NO

**COURSE DESCRIPTION:**
The course consists of 12 nine-hour shifts in the Emergency Department (ED). During each shift, the student will interact with patients and learn how to perform an expeditious and focused H&P. The student will focus on how to order appropriate diagnostic tests and formulate a differential diagnosis. The student will work closely with the attending on duty and learn how to treat and manage many various illnesses and injuries. The ED operates 24 hours a day, 7 days a week. Orientation will occur on the first day of the rotation. Weekly didactic sessions are mandatory. Blocks 1-5 will be reserved for those students entering Emergency Medicine as their chosen specialty.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Conduct an initial assessment of a patient in the ED and perform stabilization techniques. (PC1, MK3, MK4, CS1, CS2)
3. Establish a differential diagnosis, and order and interpret appropriate diagnostic tests (including imaging studies) related to the differential diagnosis. (PC2, PR1)
4. Manage acutely ill and/or injured patients. (PC3, PR2, SL2)
5. Perform procedural skills (i.e., I.V. access, blood drawing from femoral sticks, arterial sticks, sutures, I&Ds, wound care, fracture splinting). (MK5, PC1, PC7)
6. Participate in reading EKGs, ABG interpretation, and patient case discussions. (MK5, MK8)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Lectures, rounds, and discussion.
3. Patient contact and patient load.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Chest pain and abdominal pain
2. Trauma
3. Altered mental state
4. Procedures may include laceration repair, abscess incision and drainage, lumbar puncture, among others

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation of clinical and patient care skills as evaluated by the ED attending physician.
3. The students will be evaluated on their ability to follow the patient through the course of the ED which could include consultations, an admission or a discharge from the ED.
4. Active participation in group discussion as evaluated by the ED attending physician.
5. Participation in the weekly EM didactic sessions as evaluated by the faculty as well as the residents.
6. The student will be required to present a case report of their choosing during one didactic session – duration of no more than five minutes – and will be evaluated by their peers, the EM residents, and the faculty present.
7. Mid-Point feedback – Student will receive feedback from attendings at the end of clinical shifts.

Will students be expected to participate in call? ☐ YES ☒ NO
EMED 854: Emergency Ultrasound

Course Director: Brad Presley, MD, and Ryan Barnes, DO
Email: presley@musc.edu, barnesry@musc.edu

Course Coordinator: Melanie Pigott
Telephone #: 843-876-8023
Email: pigott@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>0</td>
<td>Block 3</td>
<td>1</td>
<td>Block 5</td>
<td>0</td>
<td>Block 7</td>
<td>2</td>
</tr>
<tr>
<td>Block 1A</td>
<td>Block 3A</td>
<td>Block 5A</td>
<td>0</td>
<td>Block 7A</td>
<td>2</td>
<td>Block 9A</td>
<td>3</td>
</tr>
<tr>
<td>Block 1B</td>
<td>Block 3B</td>
<td>Block 5B</td>
<td>2</td>
<td>Block 7B</td>
<td>2</td>
<td>Block 9B</td>
<td>3</td>
</tr>
<tr>
<td>Block 2</td>
<td>0</td>
<td>Block 4</td>
<td>0</td>
<td>Block 6</td>
<td>0</td>
<td>Block 8</td>
<td>3</td>
</tr>
<tr>
<td>Block 2A</td>
<td>Block 4A</td>
<td>Block 6A</td>
<td>Block 8A</td>
<td>3</td>
<td>Block 10A</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td>Block 4B</td>
<td>Block 6B</td>
<td>Block 8B</td>
<td>3</td>
<td>Block 10B</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? [ ] YES [ ] NO

COURSE DESCRIPTION:
This course is intended for students going into the field of Emergency Medicine. During the four-week rotation, the student will focus on Emergency Ultrasound (EUS) skills. They will complete a minimum of 50 scans in pertinent areas of EUS including Aorta, Biliary, Trauma, Cardiac, Renal, DVT, Soft Tissue/MSK, Thoracic, Ocular, Obstetric, and Procedural Ultrasound. There will be scheduled one on one time with EUS faculty, as well as a weekly scan review. Students will present one case at the end of their month, as well as complete interactive quizzes pertinent to required reading.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Describe the clinical indications for which bedside ultrasound would be useful. (PL2, CS1, MK5, PC3)
2. Demonstrate skills in the utilization of bedside ultrasound for diagnosis in appropriate ED patients. (PC1, MK5)
3. Demonstrate skills necessary for ultrasound guided procedures (IVs, etc.). (PC7, MK5)
4. Describe the difference between normal and abnormal anatomy found on ultrasound and how these differences affect normal physiology. (MK1, MK2, MK4)
5. Outline situations in which a more complete US scan may be needed by consultative services (Radiology, Cardiology, OB/GYN). (PC3, SL2)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Perform at least 50 US scans in the basic areas of Emergency Ultrasound.
2. Participate in formal scan review as well as dedicated one on one time with the Emergency Ultrasound faculty.
3. Complete reading assignments (book chapters and journal articles) as required per the rotation handbook.
4. Present one interesting case during general Emergency Medicine Didactics.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Students will have encounters with patients in the emergency department with a broad spectrum of disease processes.
2. Patients presenting with injuries sustained from trauma.
3. Encounters related to medical and surgical processes requiring emergent evaluation.
4. Patients with exacerbations of chronic medical conditions.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Pre and post-test of ultrasound skills and assigned readings.
3. Ultrasound scan review sessions.
4. Observed hands-on time with EUS faculty during EUS scans.
5. Mid-point feedback will be given to students during direct hands-on scanning with the students.

Will students be expected to participate in call? [ ] YES [ ] NO
Does this rotation accept visiting students? ☑ YES ☒ NO

**COURSE DESCRIPTION:**
During this experience students will spend time in a continuing care retirement community for geriatric patients. The students taking this elective will gain experience not only in the care of geriatric populations but also in the knowledge of care transitions related to the post-acute and long-term care environments. The rotation is located at The Village at Summerville (201 W 9th North Street).

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate quality care unique to geriatric patients in the post-acute and long-term care settings. (PC1, MK3)
2. Manage successful care transitions across settings including skilled nursing, long-term care, assisted living, and independent living. (PC3, MK4, CS3, SL2)
3. Articulate unique challenges in providing care in the institutionalized setting. (PC5, SL4)
4. Work effectively as a member of the interprofessional team in a long-term care setting. (PR1, CS4, PC6)
5. Manage physical rehabilitation needs of individual patients. (MK5, PC3)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Provide continuity of care across medical service settings.
2. Evaluate and treat common geriatric syndromes as they arise.
3. Work as an effective member of the interdisciplinary team in the long term care setting.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Patients with geriatric syndromes, including (but not limited to) dementia, falls, incontinence, osteoporosis, delirium
2. Patients in a long-term care setting, including (but not limited to) end-of-life care, age-related debility

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. At the midpoint of the rotation the preceptor will provide verbal feedback regarding student performance.
3. Supervision of clinical encounters and work with the interdisciplinary team.

Will students be expected to participate in call? ☑ YES ☒ NO
Does this rotation accept visiting students? □ YES    ☒ NO

**COURSE DESCRIPTION:**
On this rotation, students will work closely with a family physician, gaining genuine experience in family medicine and primary health care delivery. This elective is beneficial for those considering a career in family medicine and for future consultants to gain an appreciation for the role of the family physician. **Students must have pre-approval from a community preceptor, chosen from a list provided by Department of Family Medicine, prior to registration in this course.**

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Describe features of private practice that differ from hospital-based or academic practice. (SL1, SL4)
2. Identify and address the patient's reasons for the visit. (PC1)
3. Negotiate the assessment and plan with the preceptor and patient (PC2, PC3, MK1, MK5, MK8)
4. Discuss the methods to improve the business of providing health care services in an ambulatory practice. (PL1, PL3)
5. Analyze the lifestyle of the preceptor in relationship to practice style. (PR4)
6. Describe opportunities and optimal approaches for integrating disease prevention/health promotion into clinical practice. (MK7, PC5, PL6)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Patient care
2. Conduct interviews and physical examinations of patients.
3. Write the progress note for assigned patient encounter
4. Recommend orders for care of assigned patients.
5. Ensure complete and timely care of assigned patients.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Diabetes
2. Hypertension
3. Respiratory Infections, including pharyngitis, URI, sinusitis, and bronchitis
4. Hyperlipidemia
5. Musculoskeletal pain, including low back, shoulder, knee, hip, and ankle pain

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? □ YES    ☒ NO
Does this rotation accept visiting students?  ☑ YES ☐ NO

**COURSE DESCRIPTION:**
The student will be scheduled to assist with direct patient care activities with sports medicine physicians. In addition, the student will rotate through physical therapy and work with athletic trainers. Finally, the student will be expected to develop and present a morning report / noon conference on a primary care sports medicine topic.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate a basic foundation of knowledge in primary care sports medicine. (MK1, MK2, MK3, MK4, MK5, MK6)
2. Demonstrate understanding and promote the role of exercise in health promotion and disease prevention (and be able to prescribe an individualized exercise program). (MK7, MK8, PC3, CS4)
3. Demonstrate an understanding of injury prevention and be able to manage common exercise and sport related injuries, acutely and chronically. (MK7, PC5)
4. Understand multidisciplinary team and their roles in the health of the athlete. (IP1, IP2)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Assist with direct patient care.
2. Complete recommended reading assignments.
3. Provide formal presentation on a sports medicine topic of choice.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Sports-related injuries
2. Other musculoskeletal complaints

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. At the end of each week, the preceptor will provide verbal feedback regarding your performance.

Will students be expected to participate in call?  ☐ YES ☑ NO
Does this rotation accept visiting students? □ YES ☒ NO

COURSE DESCRIPTION:
Taking a spiritual history and referring patients with spiritual concerns to chaplains or ministers are basic clinical skills that every medical provider should learn. Inquiry into the spiritual areas of patients’ lives, previously considered taboo, is now taught as method of delivering more comprehensive and compassionate care at over 70 medical schools. Spiritual inquiry is justified by the need to obtain important medical information and explore the patient’s point of view regarding their illness, but it must be done in such a way that respects the patient’s privacy, confidentiality, and autonomy. Effectively integrating spiritual sensitivity into clinical practice is a challenge that should be addressed by all physicians and clinical care providers.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Take a spiritual history from a patient. (CS1, PR2, PC5)
2. Demonstrate integration of sensitivity to spiritual needs into the clinical encounter. (PC1, MK7, CS2, PL3)
3. Refer patients to several available spiritual and religious health resources in the hospital and community. (PR1, PC4, SL4)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Outpatient clinical medicine.
2. Working with the chaplain.
3. Inpatient rounding.
4. Independent reading.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Acute illnesses in an outpatient family medicine clinic
2. Patients hospitalized on a family medicine inpatient service, with pneumonia, COPD, heart disease, and other conditions
3. Hospice patients with terminal cancer and other terminal conditions

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation by faculty during direct patient care.
3. One write-up of an illustrative case by collecting a spiritual history from a patient and evaluating them using the H.O.P.E. assessment.

Will students be expected to participate in call? □ YES ☒ NO
Does this rotation accept visiting students? □ YES □ NO

**COURSE DESCRIPTION:**
How do health professionals help close the loops in caring for their patients? Many times health professionals are unable to meet the needs of their patients beyond diagnosis and prescription of medical care. However, for many patients, especially the underserved population, their social factors greatly affect all health outcomes. This course exposes students to clinical care for uninsured adult patients in our community while simultaneously giving them an in-depth experience with community sites that help address major social determinants of health including food insecurity, transportation, and literacy. Students will see patients at the CARES clinic in Mt. Pleasant (M, T, Th), CARES community screening events (Saturday mornings, optional) and Partners in Health Clinic (PIHC) in Mt. Pleasant (W, TH afternoons). Both CARES and PIHC are located at 1145 Six Mile Road.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Perform validated screening for food insecurity in adult patients. (PC3)
2. Provide appropriate referrals to community resources that will address the most pressing social determinants of health for a particular patient. (PC4, PC5, PL6)
3. Discuss the contribution of food insecurity, lack of transportation, literacy and other major social determinants of health to the outcomes of chronic health conditions. (MK3, MK7)
4. Demonstrate appropriate engagement with community agencies locally to address a patient's social needs within their sphere of addressing their medical conditions. (PL6)
5. Work effectively within interprofessional teams both in a clinical setting as well as during discussions of patient case studies. (IP2, IP4)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Clinical care of uninsured adult patients seen at the CARES and PIHC clinics. This includes staffing with onsite preceptors and working within interprofessional teams.
2. Selection of one patient case per week to serve as the focal point for addressing pertinent SDH (Social Determinates of Health).
3. Involvement at various community agencies pertinent to the selected/focal SDH (Social Determinates of Health) to be addressed.
4. Discussion within an interprofessional team about the patient case and pertinent work at the community agency via WebEx conferencing.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with potential multiple conditions:
1. Chronic medical conditions including but not limited to diabetes, hypertension, and hyperlipidemia
2. Acute medical conditions including but not limited to respiratory infections, gastrointestinal diseases, musculoskeletal injuries, and neurological conditions.
3. Preventive health including but not limited to pap smears, immunizations administration, and physical exam/wellness screening.
4. Psychiatric conditions such as depression, anxiety, and insomnia.

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Rubric for evaluation of patient case studies.
3. Direct observation and feedback by clinical preceptor.

Will students be expected to participate in call? □ YES □ NO
COURSE DESCRIPTION:
This elective is structured to provide the student with an inpatient experience on an academic family medicine service. Students are expected to complete four weeks as an acting intern on the inpatient service. This rotation is at MUSC Hospital.

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Perform a complete patient interview and physical exam for patients requiring hospital admission. (PC1, CS1)
3. Review and synthesize patient findings, using evidence-based medicine, to develop a management plan for hospitalized patients. (MK1, MK5, MK8, PC2, PC3, PL1, PL3)
4. Present patient evaluations and management plans to the patient care team. (PC2, PC3, CS1, PR1, PR4)
5. Document accurate history and physicals, daily progress notes, and discharge summaries for hospitalized patients. (CS5)
6. Communicate with consultants and ancillary staff regarding the care and management of a patient. (PC4, CS4, PR1, IP1, IP3)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through participation in the following activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Lectures (Morning Reports and Noon Conferences).
3. Inpatient Rounds.

PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions:
1. Congestive Heart Failure (Reduced Ejection Fraction, Preserved Ejection Fraction, Combined)
2. Chest Pain
3. Chronic Obstructive Pulmonary Disease
4. Cerebrovascular Accident vs. Transient Ischemic Attack
5. Pneumonia (Community Acquired, Healthcare associated, Aspiration, Viral)
6. Sepsis
7. Cellulitis
8. Sickle cell crisis
9. Gastrointestinal bleed
10. Alcohol withdrawal

EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods:
2. At the end of each week, the attending on service will provide verbal feedback regarding your performance.
3. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance. The student is responsible to ensure the mid-point evaluation is completed and returned to Sierra Goodman in a timely fashion.
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
This elective will provide students with an inpatient and outpatient experience representative of a community family medicine physician. Students are expected to complete 2 weeks as an acting intern on the inpatient service, 5 nights of night-float, and a week at the resident outpatient practice. This rotation is at Trident Hospital. Students will be required to complete a credentialing packet before the start of the rotation. The student should provide an updated vaccination record showing two MMR vaccines or MMR titers. If the student does not have proof of either, then there may be associated cost of obtaining MMR titers prior to beginning the rotation.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Perform a complete patient interview and physical exam for patients requiring hospital admission. (PC1, CS1)
3. Review/synthesize findings to develop a management plan for hospitalized patients. (MK1, MK5, MK8, PC2, PC3, PL1, PL3)
4. Present patient evaluations and management plans to the patient care team. (PC2, PC3, CS1, PR1, PR4)
5. Document accurate history and physicals, daily progress notes, and discharge summaries for hospitalized patients. (CS5)
6. Communicate with consultants and ancillary staff regarding the care and management of a patient. (PC4, CS4, PR1, IP1, IP3)
7. Assess commonly encountered outpatient problems and develop an appropriate management plan. (MK1, MK5, MK8, PC2, PC3)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through participation in the following activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Lectures (Morning Reports and Noon Conferences).
3. Inpatient Rounds.
5. Night-float (8pm–10am, 5 consecutive nights).

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Congestive Heart Failure (Reduced EF, Preserved EF, Combined)
2. Chest Pain
3. Chronic Obstructive Pulmonary Disease
4. Cerebrovascular Accident vs. Transient Ischemic Attack
5. Pneumonia (Community Acquired, Healthcare associated, Aspiration, Viral)
6. Sepsis
7. Cellulitis
8. Sickle cell crisis
9. Gastrointestinal Bleed
10. Alcohol withdrawal

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. At the end of each inpatient week, the attending will provide verbal feedback.
3. Verbal feedback will be provided for night-float each morning after rounds by the attending.
4. A mid-point evaluation form will be completed half way through the rotation for the student to be assessed on their performance. The student is responsible to ensure the mid-point evaluation is completed and returned to Sierra Goodman in a timely fashion.

**Will students be expected to participate in call?** ☑ YES ☐ NO
The student will be expected to complete 5 consecutive nights of night-float, 8:00 pm–10:00 am.
COURSE DESCRIPTION:
This rotation will provide students with inpatient and outpatient experience consistent with a community family medicine physician located in the Murrells Inlet area. Students will complete 1-2 weeks on a busy inpatient service (flexible), 1-2 weeks of outpatient medicine, and 1 week geared towards a specific interest of the student (given availability of rotation). For instance, students interested in community medicine, geriatrics, or behavioral medicine (among others) will have the opportunity to focus in these areas. If the student does not have specific interests, 2 weeks will be completed in the outpatient setting. Students will be responsible for providing their own transportation and securing housing for this rotation (AHEC housing may be available).

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Complete history and physical for patients upon admission to hospital. (PC1, CS1)
2. Develop daily plan for patients admitted to the inpatient service. (MK1, MK5, MK8, PC2, PC3, PL1, PL3)
3. Deliver accurate and concise patient assessment and management plans to patient care team. (PC2, PC3, CS1, PR1, PR4)
4. Document accurate history and physical, daily progress notes, discharge summaries, and clinic notes for patients. (CS5)
5. Communicate with consultants and ancillary staff regarding care of patients. (PC4, CS4, PR1, IP1, IP3)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Participate on rounds daily while on inpatient service.
2. Discuss outpatient encounters directly with attending physicians.
3. Attend Morning Report daily.
4. Meet with course director at the beginning and end of rotation for debriefing.
5. Attend academic half day if applicable.

PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions:
1. Chronic medical conditions, including diabetes, hypertension, hyperlipidemia
2. Acute illnesses, including upper respiratory infections, musculoskeletal injuries, gastrointestinal disease
3. Psychiatric conditions, including depression, anxiety, insomnia
4. Preventative health, including Pap Smears, immunizations, physical exam, wellness
5. Frequently encountered inpatient conditions, including sepsis, community-acquired pneumonia.

EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods:
2. Inpatient attendings will deliver verbal feedback each week.
3. Outpatient attendings will deliver verbal feedback each week and during specific patient encounters.
4. Course director will deliver verbal feedback at the end of the rotation.

Will students be expected to participate in call? ☑ YES ☐ NO
**COURSE DESCRIPTION:**
This comprehensive elective exposes students to all aspects of laboratory medicine including chemistry, microbiology, hematology, immunology, transfusion medicine and molecular diagnostics. The students will participate in laboratory rotations, laboratory rounds, conferences and small group sessions with attending faculty, residents, fellows and clinical laboratory staff. The overall objectives of the rotation are for the student to gain an appreciation of the role of laboratory measurements in the diagnosis and management of patients and to understand the preanalytical, analytical and post-analytic factors that influence laboratory results.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Identify the important preanalytical, analytical and post-analytical variables that influence laboratory results. (MK4, PC2, PL2)
2. Discuss the basic principles and test methods used in the clinical chemistry, microbiology, transfusion medicine, hematology and immunology laboratories. (MK5, PC2, PL2)
3. Describe the relationship of clinical laboratory results to diagnosis and patient management. (MK8, PL3, SL2)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the attending following methodologies and activities:
1. Lectures (Laboratory Medicine Core Lecture Series for Pathology residents; Thursdays, 8-9 am; CH 204)
2. Lab (Rotations through the different Clinical Laboratory sections as described above)
3. Conference (Clinical Pathology On-call Conference; Mondays 8:30-9:30 am; CH 204)
4. Seminars (Pathology Journal Club; 2nd Wednesday, 8-9 am and Grand Rounds; 1st Wednesday, 8-9 am; CH 204)
5. Small groups (daily with faculty at various times)
6. Independent study (assigned reading and review with faculty)

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Students present clinical problem or case in which the laboratory results were particularly important in diagnosis or management that they encountered during the laboratory rotations. Cases selected depend upon the students’ interest.

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods.
2. Direct observation.
3. Oral presentation.
4. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance.

**Will students be expected to participate in call?**

- YES
- NO
MDCOR 847: Uganda – Clinical

Course Director: Edward O’Bryan, MD and Lacey Menkin-Smith, MD
Email: obryanec@musc.edu; menkin@musc.edu

Course Coordinator: Christine Talbot-Bond
Telephone #: 843-792-2427
Email: talbotbo@musc.edu

Does this rotation accept visiting students? ☑ YES ☒ NO

COURSE DESCRIPTION:
The course consists of 18 eight-hour shifts at the Masindi-Kitara Medical Center (MKMC) in Masindi, Uganda. During each shift, the student will interact with patients and learn how to perform a focused H&P. The student will focus on how to order appropriate diagnostic tests and formulate a differential diagnosis while focusing on the many limitations of medical care in the developing world. The student will work closely with the attending on duty and learn how to treat and manage many various illnesses and injuries including tropical diseases. The MKMC Medical Center in Uganda operates 24 hours a day, 7 days a week and sees over 2,000 patients a month on average. The student will have the opportunity to work in Emergency and Urgent care, inpatient care, outpatient clinical care, OB/GYN care, and surgical care. Furthermore, the student will have the opportunity to participate in laboratory diagnostics as well as ultrasound performance and interpretation. If the rotation falls during one of four PMI short-term mission teams to Uganda, the student will have the opportunity to join the team in remote mobile clinic locations.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Conduct an initial assessment of a patient in the developing world and perform stabilization techniques. (MK7, PC1, PC7, CS1, CS2, PR1, PD1, PL6)
2. Establish a differential diagnosis including potential tropical diseases, zoonotic diseases, and diseases related to public health disparities and order/interpret appropriate diagnostic tests (including imaging/lab studies) related to the differential diagnosis. (MK3, PC2)
3. Manage acutely ill and/or injured patients as well as inpatients. (MK3, PC3, PC4, PC5, PC6, CS1, CS2, PR1, PR2, PR3, PL1)
4. Perform procedural skills if desired (i.e., I.V. access, blood drawing, sutures, I&Ds, wound care, fracture splinting). (PC7)
5. Participation/reading blood smears, lab interpretation, ultrasound interpretation, and patient case discussions. (MK5, MK8, PL3, IP3)
6. Develop an understanding of the differences in the healthcare systems in Uganda and the U.S. (MK7, SL1, SL3, SL4, SL4, IP2, IP4)
7. Participate in learning rounds and weekly problem-based learning sessions (MK3, MK7, PR2, PL3, PL6, SL1, SL4)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Lectures, rounds, and discussion including one pre-departure orientation session of 2 hours duration and one post-trip debriefing session with course director.
2. Weekly independent learning assignments and problembased learning with Ugandan clinicians.
3. Patient contact and patient load.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with conditions from all organ systems, including:
1. Malaria, typhoid and other tropical or infectious diseases common to the area.
2. Chest pain, abdominal pain, diabetes, hypertension, cellulitis, trauma, and non-infectious diseases.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods.
2. Direct observation of clinical and patient care skills evaluated by the attending physician.
3. The students will be evaluated on their ability to follow the patient through the course of their time at MKMC, which could include an admission.
4. Active participation in group discussion as evaluated by the attending physicians or MKMC staff.
5. Participation in weekly didactic sessions, learning rounds and problem based learning evaluated by the course director.
6. The student will be required to present a case during one learning rounds session – and will be evaluated by their peers, residents, and faculty present.
7. In order to continue to improve the rotation, the student will be asked to critique both the course and the attendings, residents, and/or MKMC staff with whom s/he worked within two weeks after the completion of the rotation.

**Will students be expected to participate in call?** □ YES □ NO

**ADDITIONAL INFORMATION:** This course requires the following

1. Approval by the COM Associate Dean for Curriculum – Clinical Sciences and the COM Selectives and Electives Committee. **Permission to participate in this elective may be denied or revoked after original permission is granted if for any reason concerns arise regarding safety or quality of the educational experience.**
2. Coordination of travel with the MUSC Center for Global Health and adherence to the MUSC International Travel Policy and restrictions, which includes:
   a. [Registration of travel](#) with International SOS, the university international travel assistance provider
   b. Completed [Health and Safety Plan](#)
   c. Completed [International Travel Waiver](#)
3. Completion of a separate application and waiver of liability prior to departure through OneWorld Health, which serves as host during the rotation. This can be found at [www.oneworldhealth.com](http://www.oneworldhealth.com).
4. Vaccines are required for travel into Uganda; please see the CDC website on travelers’ health and/or visit the MUSC Travel Medicine Clinic for more details.

**Funding may be available to cover costs associated with this elective, please see your COM Deans Office representative for details.**
**COURSE DESCRIPTION:**
This rotation is structured to give students a broad-based experience in development, organization, and implementation of Public Health Initiatives in the setting of the developing world. The student will become an integral part of the Public Health team at the Masindi-Kitara Medical Center (MKMC) in Masindi, Uganda, and will participate in public health community outreach as well as public health teaching and training within the medical center that serves a population of over 600,000 people. The student will work closely with the current and future United States Peace Corps members stationed at the medical center as well as participate in new public health opportunities through the United States Agency for International Development (USAID) Diagnostic and Public Health Center being constructed currently at MKMC. The student will also have the opportunity to participate in ongoing public health research as well as craft new research opportunities in both a public health and clinical setting (optional). Furthermore, should the rotation fall on one of the four annual Palmetto Medical Initiative (PMI) short-term mission weeks, the student may participate in remote mobile outreach clinics as well where they will have a specific pre-determined public health agenda and focus.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate analysis, synthesis, and integration of pertinent public health data. (MK7, PL6)
2. Formulate a comprehensive, ordered public health intervention plan. (MK7, SL1, SL2, SL3, SL4)
3. Demonstrate an ability to build a positive, proactive relationships with patients. (PC5, CS1, CS2, CS3, PR1, PR3)
4. Demonstrate professional demeanor and ethical behavior. (PR1, PR2)
5. Demonstrate the ability to incorporate best medical practice into existing cultural beliefs. (MK8, PC5, CS2, PR3)
6. Apply knowledge of the pathophysiology, epidemiology, and natural history of public health issues specific to Sub-Saharan Africa. (MK4, PL3, PL6)
7. Demonstrate and apply knowledge of the epidemiology and natural history of public health management of patient populations. (MK7, PL3, PL6)
8. Present pertinent public health data gathered from research, current initiatives, and best practice to MKMC staff as well as public health patients. (PL3, PC5, IP3)
9. Demonstrate effective and professional interpersonal and communication skills in interactions with patients and families, including an awareness of psychosocial factors related to public health deficits. (PC5, CS1, CS2, PR1, PR3, SL2)
10. Identify public health knowledge deficits. Change future practices based on deficits. (PD2, PL1, PL6)
11. Demonstrate appreciation and collaboration with other members of the public health team including Peace Corps Staff, USAID Staff, nursing, and community leaders. (CS1, PR1, IP1, IP2, IP3, IP4)
12. Identify issues related to the cost-effectiveness of public health interventions. (PL6, SL1, SL2, SL4)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Lectures, discussion, public health project implementation.
2. Coordination with Peace Corps Workers, MKMC staff, and local community leaders to assess effectiveness of public health interventions.
3. Attendance at weekly public health outreaches with Peace Corps and MKMC staff, as well as twice weekly public health teaching sessions at MKMC.
4. Attendance at a mandatory “mini-course” (usually 2-3 hours long) to cover important aspects of public health, global and travel medicine prior to travel.
5. Complete a 2- to 3-page paper on a public health issue addressed while on rotation.
6. Attendance at a mandatory lecture and debriefing meeting (2 hours) with course director within one week of returning from rotation.
**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with conditions from all organ systems, including:

1. Malaria, typhoid, and other tropical or infectious diseases common to the area
2. Chest pain, abdominal pain, diabetes, hypertension, cellulitis, trauma, and non-infectious diseases

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods.

2. Direct observation of public health presentation skills as evaluated by the attending physician.
3. Feedback and evaluation of writing assignment.
4. Active participation in group discussion as evaluated by the course director and public health staff.
5. Participation in the weekly public health didactic sessions as evaluated by the faculty as well as potential residents and Peace Corps workers.
6. The student will be required to present a public health case report or research topic of their choosing during one didactic session – duration of no more than five minutes – and will be evaluated by their peers, residents, and faculty present.
7. In order to continue to improve the rotation, you will be asked to critique both the course and the attendings, residents, and/or Peace Corps Volunteers with whom you worked within two weeks after the completion of the rotation.

**Will students be expected to participate in call?** ☐ YES ☒ NO

**ADDITIONAL INFORMATION:** This course requires the following

1. Approval by the COM Associate Dean for Curriculum – Clinical Sciences and the COM Selectives and Electives Committee.
2. Coordination of travel with the MUSC Center for Global Health and adherence to the MUSC International Travel Policy and restrictions, which includes:
   a. [Registration of travel](#) with International SOS, the university international travel assistance provider
   b. Completed [Health and Safety Plan](#)
   c. Completed [International Travel Waiver](#)
3. Completion of a separate application and waiver of liability prior to departure through OneWorld Health, which serves as host during the rotation. This can be found at [www.oneworldhealth.com](http://www.oneworldhealth.com).
4. Vaccines are required for travel into Uganda; please see the CDC website on travelers’ health and/or visit the MUSC Travel Medicine Clinic for more details.

**Funding may be available to cover costs associated with this elective, please see your COM Deans Office representative for details.**
MDCOR 849: Tanzania – Clinical

**Course Director:** Eric Powers, MD  
Email: powerse@musc.edu

**Course Coordinator:** Kathleen Ellis  
Telephone #: 843-792-5602  
Email: ellisk@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>0</td>
<td>Block 3</td>
<td>0</td>
<td>Block 5</td>
<td>0</td>
<td>Block 7</td>
<td>0</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>0</td>
<td>Block 4</td>
<td>0</td>
<td>Block 6</td>
<td>0</td>
<td>Block 8</td>
<td>2</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
</tr>
<tr>
<td>Block 9A</td>
<td></td>
<td>Block 9B</td>
<td></td>
<td>Block 9A</td>
<td></td>
<td>Block 10A</td>
<td></td>
</tr>
<tr>
<td>Block 10B</td>
<td></td>
<td>Block 10B</td>
<td></td>
<td>Block 10B</td>
<td></td>
<td>Block 10B</td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students?  ☐ YES ☒ NO

**COURSE DESCRIPTION:**
This is a four-week clinical elective in Dar es Salaam, Tanzania, designed for fourth-year medical students with a genuine interest in global health and in caring for underserved populations. This rotation will expose the student to 1) medical care at a national hospital (Muhimbili National Hospital) in a developing country which has recently invested in an advanced cardiac center and 2) participation in a rural outreach clinic where MUSC and Muhimbili University of Health and Allied Sciences (the national university) have an active, NIH-funded field research site focused on large-scale community-based prevention and care programs, including integration of screening for non-communicable diseases such as diabetes and hypertension with HIV testing, coupled-based HIV treatment, HIV pre-exposure prophylaxis for HIV-uninfected clients coupled with HIV-infected partners, home-based monitoring for diabetes and hypertension, development of a low-cost locally produced glucometer, studies of the prevalence and predictors of non-communicable diseases (diabetes, hypertension, CKD), tailored counseling and testing for HIV based on risk profile, home-based HIV self-testing, and an incentive-based program to encourage sexual partners of HIV-infected and high risk patients to seek HIV testing. The primary focus will be on teaching the student to rely on clinical skills and judgment in addition to technology available in that setting. Students will participate in all aspects of care of medical patients at Muhimbili National Hospital. This will include daily inpatient ward rounds, outpatient clinics, ICU, and emergency room management of medical patients. There will be hospital-wide didactic teaching sessions involving attendings and students, didactic conferences, case presentations and interactive sessions with attendings. Students will be exposed to a wide spectrum of heart diseases in addition to problems not commonly seen in the U.S. such as malaria, typhoid and rheumatic heart disease.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:

1. Gather accurate and essential information in a system without modern technological equipment and use that information to provide best possible care. (PC1, PC3, PC6)
2. Diagnose and manage illnesses that are common worldwide but are rare in the U.S. (PC2)
3. Assist with diagnostic evaluation and provision of care to patients on the MNH medical ward under the supervision of attending physicians. (PC2, PC3, PC6, PC7)
4. Participate in the diagnosis and treatment of a wide spectrum of heart diseases and other prevalent health conditions. (PC2, PC3)
5. Demonstrate understanding of diseases in low-income countries and integrate and apply basic and clinical science knowledge to these diseases. (MK3, MK7)
6. Examine the role of community-based interventions in providing health care in rural communities with relatively limited resources to ensure proper treatment in patients with chronic health issues. (PC6, PR3, PL1, PL6)
7. Demonstrate expanded medical knowledge of heart disease and treatment in poor socioeconomic conditions by assisting with histories, physicals and assessments (rheumatic heart disease, etc.). (MK3, MK7, PC1, PC2, PC3)
8. Discuss how the local patient population’s health practices, culture, and beliefs affect the patient. (PR2, PR3, PR4)
9. Demonstrate insight into health care disparities and social determinants of health. (MK7, SL4)
10. Demonstrate the ability to adapt clinical skills and practice in a resource-constrained environment. (SL1, SL2)
11. Discuss the challenges of cross-cultural communication in a multilingual context. (CS1, PR1)
12. Exemplify an awareness of and respect for cultural differences unique to their experience and self-evaluate during difficult interactions. (PR3, PD1)
13. Demonstrate sensitivity and openly discuss ethical decision-making in treatment of patients as well as in teaching situations. (CS3, PR2)
14. Discuss the ethical dilemmas posed in an developing country hospital such as limited resources, needs of poor patients. (PL1, SL2, SL4)
15. Demonstrate humility, flexibility, professionalism, and cultural sensitivity when working within a different healthcare context. (PR1, PR3)
16. Demonstrate an understanding of cultural and ethical issues working with underserved populations. (CS2, PR2, PR3)
17. Discuss the various health care systems available in Tanzania and how this hospital fits into that system. (SL1, SL3)
18. Identify barriers to health and health care in low-resource settings. (SL4)
19. Develop an understanding of the need for feasible interventions targeted to the local health system realities that maximize positive health outcomes at a low cost. (PL6, SL2, SL4)
20. Demonstrate an appreciation of the need for continuity of interventions at the community-level, and the risks and perils of sporadic provision of services in low-income settings. (SL1, SL4)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:

1. Participating in daily rounds and conferences on the Cardiology services of the Muhimbili National Hospital.
2. Participating in the evaluation and management of patients undergoing routine and advanced cardiac procedures and the evaluation and care of patients presenting to the Emergency Department at Muhimbili National Hospital.
3. Participation in a rural outreach clinic where MUSC and Muhimbili University of Health and Allied Sciences (MUHAS) have an active, rural field site focused on large-scale community-based programs addressing HIV testing, linkage and retention to care, couples-based interventions, and non-communicable diseases. Students will participate in the diagnosis, education and management of patients.
4. Students will be expected to spend one day in the MUSC Ashley River Tower Heart And Vascular Center prior to departure in order to observe advanced cardiac procedures in the U.S. to gain an understanding of the differences in health care systems.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with conditions from all organ systems, including:

1. Wide spectrum of heart disease and heart-related diseases
2. Chronic communicable diseases common to the area (TB, Malaria, HIV/AIDS)
3. Non-communicable diseases such as diabetes and hypertension

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:

1. Exit interviews with MUSC supervising faculty upon return to the U.S.
2. E*Value Clinical Performance Evaluation completed by supervising faculty at Muhimbili.
3. Presentation and discussion of patients with the consult attending.
4. Direct observation of clinical patient care skills verbally evaluated by the attending physician.
5. Student will be required to present a 45-minute case-based presentation from a clinical experience seen at MNH or field site. Student will meet with course director to discuss case details and presentation forum.

**Will students be expected to participate in call?**    [ ] YES  [ ] NO

**ADDITIONAL INFORMATION:** This course requires the following:

1. Approval by the COM Associate Dean for Curriculum - Clinical Sciences and the COM Selectives and Electives Committee. Permission to participate in this elective may be denied or revoked after original permission is granted if for any reason concerns arise regarding safety or quality of the educational experience.
2. Coordination of travel with the MUSC Center for Global Health and adherence to the MUSC International Travel Policy and restrictions, which includes
   a. Registration of travel with International SOS, the university international travel assistance provider
   b. Completed Health, Safety, and Security Plan
   c. Completed International Travel Waiver
3. Vaccines are required for travel into Tanzania; please see the CDC website on travelers’ health and/or visit the MUSC Travel Medicine Clinic for more details

**Funding may be available to cover costs associated with this elective, please contact Kathleen Ellis in the Center for Global Health at ellisk@musc.edu for details.**
COURSE DESCRIPTION:
This course allows students to develop skills in literature search and review, as well as medical writing and editing. The course includes two in-person sessions: the first day for course orientation and the last day for final presentations. **Both of these days are mandatory.** The students will work under the supervision of an MD and librarian to retrieve relevant information and edit their article to improve the quality of the information available to those accessing Wikipedia. Weekly progress meetings will be conducted in-person with an option to join via web conference. Students’ work will be reviewed throughout the course.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Identify, retrieve, and critically evaluate evidence-based biomedical information. (PL3)
2. Critically review the scholarly work of peers. (PR1, CS4)
3. Utilize relevant evidence-based information in medical writing for public consumption. (PL3)
4. Demonstrate acquisition and assimilation of medical knowledge through writing and editing a medical article. (MK1-8)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Attend initial classroom instruction on Wikipedia article selection and evaluation, identify and evaluate credible sources of biomedical information, edit content in Wikipedia, apply skills relevant to medical writing for public consumption.
2. Work independently to identify, retrieve, and evaluate information sources and integrate this information through careful editing of the selected medical article.
3. Review the work of a peer in the course.
4. Participate in orientation, weekly progress meetings, and the final presentation session with group. (Virtual attendance and other check-in procedures will be available for weekly progress meetings for students affected by travel or interviews.)

PATIENT ENCOUNTERS: Students will be expected to work-up patients with conditions from all organ systems, including:
1. n/a

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
1. E*Value WikiEditing Elective Evaluation
2. Review of WikiEd Dashboard Statistics
3. Feedback from librarian on information retrieval and evaluation

Will students be expected to participate in call? ☐ YES ☒ NO
COURSE DESCRIPTION:

Fourth-year medical students will work with interdisciplinary critical care teams lead by Pulmonary and Critical Care physicians at a large community medical ICU. Students will be directly involved in assessing, stabilizing, and treating critically ill patients with a variety of complex medical diseases such as sepsis, respiratory failure, shock, renal failure. Students will become familiar with the basics of mechanical ventilation, intravenous fluids, shock and vasoactive medications, procedural indications and end-of-life care issues in the ICU. Students will observe and potentially perform invasive procedures.

Students will participate in a mandatory orientation day to cover essential critical care subject matter. Participation is expected at all simulation-based procedural skills modules unless absence is excused. Students will be expected to work at least 20 shifts. Make-up dates for unexcused absences will take place the final weekend of the rotation and then at the discretion of the unit director. There is no expectation of night call, but it can be offered by the unit director as an integral learning experience or as make-up for unexcused absences. This rotation is recommended for students looking to match in Internal Medicine, Family Medicine, Emergency Medicine and other non-surgical, non-pediatric subspecialties.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Assess a critically ill patient and develop a timely, prioritized, and evidence-based plan for initial stabilization. (PC1, PC3)
2. Apply knowledge to develop evidence-based clinical plans for critically ill patients, including appropriate use of hemodynamic monitoring, application of ventilator modes and settings, and initiation and titration of vasomotor support. (MK4, MK5, PC3, PC6)
3. Be able to obtain Informed Consent for diagnostic and therapeutic tests and procedures including verbalization of risks, benefits and alternatives. (PC3, PC7, ICS1, SBP3)
4. Participate in and potentially perform procedures under direct supervision, including placement of arterial lines and central venous catheters while learning proper sterile technique. (MK8, PC7)
5. Demonstrate skills in the utilization of bedside Point-of-Care ultrasound for diagnosis in appropriate ICU patients. (PC1, MK5)
6. Identify relevant information in the primary medical literature regarding their patients’ disease states, and incorporate information from the literature into presentations and documentation. (PL3, CS5)
7. Demonstrate effective and professional interpersonal and communication skills, and model ethical behavior. (CS1, PR1, PR2)
8. Demonstrate empathy and discuss end of life issues with the patient and family including giving bad news. (PC1, PC3, CS1, CS2, CS3, PR3, PR1, PR2)
9. Perform a basic family meeting to discuss goals of care including discussing and obtaining code status. (PC1, PC4, CS1, CS2, CS3, CS4, PR1, PR2, PR3)
10. Work within a multidisciplinary team on daily rounds as an effective team member including mitigating patient risk and early identification of potential medical errors. (PR1, SL4, IP2, IP3, IP4)
11. Understand quality improvement metrics in the ICU and the team’s role in reducing hospital acquired infections including VAP, CAUTI, CLASBI, etc. (MK7, PR4, PL4, PL5, PL6, SL3, IP4)
12. Concisely summarize a patient’s critical illness and hand off important clinical information efficiently to other team members and consultants. (CS1, CS5, IP1, IP2, IP3, PC6)
13. Demonstrate an understanding of the pharmacology of sedation in the ICU including the prevention and treatment of pain, agitation and delirium. (MK2, MK3, MK4, MK5, PC3, PL4)
14. Demonstrate a knowledge of airway management devices including high flow nasal cannula, NIV, BVM, LMA and endotracheal intubation. (MK1, MK4, MK8, PC6, PC7, CS1, CS2, PR3, PL2)
15. Describe the basic aspects of antimicrobial treatment and rational use of anti-infective therapeutic agents, as well as the negative patient complications of antimicrobial overuse. (PC3, PC6, PL3, PL6)
16. Understand the differential diagnosis, evaluation and management for Acute Kidney Injury (AKI) through lab interpretation and radiological studies including the indications for acute dialysis therapy. (MK1, MK3, MK4, MK5, MK7, PC1, PC2, PC3, CS1)
17. Write complete and succinct systems based medical plan with H&Ps and daily progress notes in EPIC. (MK3, MK4, MK5, PC2, PC3, PC6, CS1, CS5, PR1, PR4, PR5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will participate in all aspects of care including initial assessment, diagnosis, management and patient/family communication and decision making for critically ill patients.
2. Students will be expected to present their patients on rounds, and patient-centered clinical and educational topics will be discussed.
3. Students will receive instruction in ventilator management, central line use, and invasive and non-invasive hemodynamic monitoring.
4. Students will learn about pharmacotherapy in the ICU, including vasopressors, antibiotics, and sedatives, and analgesic medications.
5. Students will have the opportunity to learn about and potentially perform a variety of procedures, including central venous catheter placement, arterial catheter placement, paracentesis, and thoracentesis.
6. Students will learn the principles of bedside point-of-care ultrasonography including thoracic, abdominal and bedside echocardiography.
7. Students will attend and participate in didactic teaching session and simulation modules as part of the curriculum.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with conditions from all organ systems, including:
1. Acute hypoxic/hypercarbic respiratory failure due to pneumonia, acute respiratory distress syndrome, COPD, or other processes
2. Shock due to distributive pathophysiology (e.g., septic shock), cardiogenic compromise, obstructive mechanisms, or hypovolemia
3. Acute renal failure including hyperkalemia, pulmonary edema, refractory acidemia and necessitating acute hemodialysis
4. Neurologic conditions such as pain management, coma, encephalopathy, CVA and delirium

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
1. E*Value Clinical Performance Evaluation
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Attending physicians and fellows will provide students with a verbal evaluation at end of rotation.
4. Students will give their attending a mid-point evaluation form for performance assessment.
MED 820: Allergy & Immunology

**Course Director:** John Ramey, MD  
Telephone #: 843-729-2374  
Email: rameyjt@musc.edu, johnrameymd@gmail.com

**Course Coordinator:** Mary Ann Snell  
Telephone #: 843-792-7282  
Email: snellma@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>1</td>
<td>Block 3</td>
<td>1</td>
<td>Block 5</td>
<td>1</td>
<td>Block 7</td>
<td>1</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>1</td>
<td>Block 4</td>
<td>1</td>
<td>Block 6</td>
<td>1</td>
<td>Block 8</td>
<td>1</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
</tr>
</tbody>
</table>

---

**Does this rotation accept visiting students?**  
☐ YES  ☒ NO

**COURSE DESCRIPTION:**  
Students will see both adult and pediatric patients 5 days a week in outpatient allergy clinics (West Ashley, Mt. Pleasant, N. Charleston, and Moncks Corner). Students will learn about asthma, allergic skin diseases, food allergies, insect allergies, and immune deficiencies. Please call Dr. Ramey at 843-729-2374 for instructions about the rotation. If you start on a Monday, please come to 1470 Tobias Gadsden, Unit 204, at 8:30AM. This course is also available as a 2-week rotation. Please contact Dr. Ramey for prior approval.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Diagnose and treat allergic and non-allergic rhinitis, asthma, atopic dermatitis, urticaria, and chronic sinusitis. (MK3, MK4, MK5, MK6, PC1, PC2, PC3)
2. Define indications for skin testing and immunotherapy. (MK5, PC3, PL2)
3. Demonstrate understanding of the economic complexity of running an outpatient office. (SL1, SL2, IP1, IP4)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Will be given an allergy and immunology review book to read during the rotation.
2. Direct observation by faculty during direct patient care and review of other clinical and didactic activities (history and physical, progress notes, prescriptions, etc).
3. Students will take an ungraded quiz at the end of the rotation. Dr. Ramey will review the test with the student to help them evaluate knowledge.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Allergic and non-allergic rhinitis
2. Asthma and COPD
3. Atopic dermatitis, contact dermatitis, and urticaria
4. Recurrent infections
5. Food allergy

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation by physician.
3. Students will give their attending a mid-point evaluation form half way through the rotation for performance assessment.
4. Written examination.
5. Staff interaction and interaction with patients.

**Will students be expected to participate in call?**  
☐ YES  ☒ NO
Does this rotation accept visiting students? □ YES X NO

COURSE DESCRIPTION:
This course is designed to expose 4th-year medical students to Palliative Care. Palliative Care as defined by the Center to Advance Palliative Care is specialized medical care for patients with serious illness. It focuses on providing relief from the symptoms and stress of a serious illness—whatever the diagnosis. The goal is to improve quality of life for both the patient and the family. Students will learn how to approach and support those patients with serious illness who have emotional, spiritual and symptomatic needs, including the dying patient and their families via the inpatient Palliative Care consultation team. Students will receive an email with details of the rotation prior to their start date. Students will be provided reading material and regular didactic sessions concerning basic topics in Palliative Care. This rotation will take place at MUSC.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Manage symptoms experienced by patients with serious illness and the dying patient. (MK6, PC3)
2. Demonstrate empathy to the patient and family. (CS1, CS3, PR1, PR2)
3. Discuss end of life issues with the patient and family. (PC1, PC3, CS1, CS2, CS3, PR3)
4. Perform an appropriate history and physical for patients with serious illness and the dying patient. (MK7, MK8, PC1, PC3, CS1)
5. Understand the difference between Palliative Care and Hospice and when referral is appropriate to both. (SL1, SL2, IP1)
6. Participate in a family meeting to discuss goals of care. (PC1, PC4, CS1, CS2, CS3, CS4, PR1, PR2, PR3)
7. Write a palliative care consultation note. (PC1, PC2, PC3, CS5)
8. Work within the interdisciplinary team as an effective team member. (PR1, SL4, IP2, IP3, IP4)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Inpatient experience (90% of time): Palliative Care Consultation Service, and Palliative Care Interdisciplinary Team Meeting.
2. Structured learning and discussion (10% of time): read select references in Pain & Palliative Care and attend teaching sessions throughout the month to cover basic principles of palliative care.
3. Pre- and post-test: students will be asked to complete a palliative care knowledge test before and upon completion of their rotation.
4. Debriefing: Students will have the opportunity to debrief about their experience on our service and to process emotions that may have come up when involved with end of life care.
5. Multidisciplinary Rounding: students will have the opportunity to round with team social worker and/or chaplain as well as volunteers in order to garner appreciation for full spectrum of Palliative Care and interdependent functioning of team.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Caring for the dying patient and their family.
2. Patients and families with complex medical and psychosocial needs.
3. Patients with uncontrolled pain related to serious illness.
4. Patients with non-pain symptoms (nausea, constipation, dyspnea).
5. Family meeting to discuss goals of care.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Students will give their attending a mid-point evaluation form half way through the rotation for performance assessment.
4. Attending physicians and fellows will provide students with a verbal evaluation at the end of the rotation.

Will students be expected to participate in call? □ YES X NO
Fourth-year medical students will work with interdisciplinary critical care teams lead by Pulmonary and Critical Care physicians with house staff coverage by Pulmonary fellows and Internal medicine residents. Students will be directly involved in assessing, stabilizing, and treating critically ill patients with a variety of complex medical diseases such as sepsis, respiratory failure, shock, renal failure. Students will become familiar with the basics of mechanical ventilation, intravenous fluids, shock and vasoactive medications, procedural indications and end-of-life care issues in the ICU. Students will observe and potentially perform invasive procedures.

Students will participate in a mandatory orientation day to cover essential critical care subject matter. Participation is expected at all simulation-based procedural skills modules unless absence is excused. Students will be expected to work at least 20 shifts. Make-up dates for unexcused absences will take place the final weekend of the rotation and then at the discretion of the unit director. There is no expectation of night call, but it can be offered by the unit director as an integral learning experience or as make-up for unexcused absences. This rotation is beneficial to students looking to match in Internal Medicine, Family Medicine, Emergency Medicine and other non-surgical, non-pediatric subspecialties

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Assess a critically ill patient and develop a timely, prioritized, and evidence-based plan for initial stabilization. (PC1, PC3)
2. Apply knowledge to develop evidence-based clinical plans for critically ill patients, including appropriate use of hemodynamic monitoring, application of ventilator modes and settings, and initiation and titration of vasomotor support. (MK4, MK5, PC3, PC6)
3. Be able to obtain Informed Consent for diagnostic and therapeutic tests and procedures including verbalization of risks, benefits and alternatives. (PC3, PC7, ICS1, SBP3)
4. Participate in and potentially perform procedures under direct supervision, including placement of arterial lines and central venous catheters while learning proper sterile technique. (MK8, PC7)
5. Demonstrate skills in the utilization of bedside Point-of-Care ultrasound for diagnosis in appropriate ICU patients. (PC1, MK5)
6. Identify relevant information in the primary medical literature regarding their patients’ disease states, and incorporate information from the literature into presentations and documentation. (PL3, CS5)
7. Demonstrate effective and professional interpersonal and communication skills, and model ethical behavior. (CS1, PR1, PR2)
8. Demonstrate empathy and discuss end of life issues with the patient and family including giving bad news. (PC1, PC3, CS1, CS2, CS3, PR3, PR1, PR2)
9. Perform a basic family meeting to discuss goals of care including discussing and obtaining code status. (PC1, PC4, CS1, CS2, CS3, CS4, PR1, PR2, PR3)
10. Work within a multidisciplinary team on daily rounds as an effective team member including mitigating patient risk and early identification of potential medical errors. (PR1, SL4, IP2, IP3, IP4)
11. Understand quality improvement metrics in the ICU and the team’s role in reducing hospital acquired infections including VAP, CAUTI, CLASBI, etc. (MK7, PR4, PL4, PL5, PL6, SL3, IP4)
12. Concisely summarize a patient’s critical illness and hand off important clinical information efficiently to other team members and consultants. (CS1, CS5, IP1, IP2, IP3, PC6)
13. Demonstrate an understanding of the pharmacology of sedation in the ICU including the prevention and treatment of pain, agitation and delirium (MK2, MK3, MK4, MK5, PC3, PL4)
14. Demonstrate a knowledge of airway management devices including high flow nasal cannula, NIV, BVM, LMA and endotracheal intubation. (MK1, MK4, MK8, PC6, PC7, CS1, CS2, PR3, PL2)
15. Describe the basic aspects of antimicrobial treatment and rational use of anti-infective therapeutic agents, as well as the negative patient complications of antimicrobial overuse. (PC3, PC6, PL3, PL6)
16. Understand the differential diagnosis, evaluation and management for Acute Kidney Injury (AKI) through lab interpretation and radiological studies including the indications for acute dialysis therapy. (MK1, MK3, MK4, MK5, MK7, PC1, PC2, PC3, CS1)
17. Write complete and succinct systems based medical plan with H&Ps and daily progress notes in EPIC. (MK3, MK4, MK5, PC2, PC3, PC6, CS1, CS5, PR1, PR4, PR5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will participate in all aspects of care including initial assessment, diagnosis, management and patient/family communication and decision making for critically ill patients.
2. Students will be expected to present their patients on rounds, and patient-centered clinical and educational topics will be discussed.
3. Students will receive instruction in ventilator management, central line use, and invasive and non-invasive hemodynamic monitoring.
4. Students will learn about pharmacotherapy in the ICU, including vasopressors, antibiotics, and sedatives, and analgesic medications.
5. Students will have the opportunity to learn about and potentially perform a variety of procedures, including central venous catheter placement, arterial catheter placement, paracentesis, and thoracentesis.
6. Students will learn the principles of bedside point-of-care ultrasonography including thoracic, abdominal and bedside echocardiography.
7. Students will attend and participate in didactic teaching session and simulation modules as part of the curriculum.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with conditions from all organ systems, including:
1. Acute hypoxic/hypercarbic respiratory failure due to pneumonia, acute respiratory distress syndrome, COPD, or other processes
2. Shock due to distributive pathophysiology (e.g., septic shock), cardiogenic compromise, obstructive mechanisms, or hypovolemia
3. Acute renal failure including hyperkalemia, pulmonary edema, refractory acidemia and necessitating acute hemodialysis
4. Neurologic conditions such as pain management, coma, encephalopathy, CVA and delirium

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
1. E*Value Clinical Performance Evaluation
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Attending physicians and fellows will provide students with a verbal evaluation at end of rotation.
4. Students will give their attending a mid-point evaluation form for performance assessment.
Does this rotation accept visiting students? ☒ YES ☐ NO

**COURSE DESCRIPTION:**
This is a combined inpatient consultation and outpatient clinical rotation designed to expose fourth-year medical students to the field of Hepatology. Students will be exposed to patients with acute and chronic liver disease and learn diagnostic approaches and medical management of these patients. Students will also observe endoscopic procedures and understand their role in the care of patients with liver and GI diseases.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Assess patients with liver disease and develop appropriate differential diagnoses and clinical assessments and plans. (MK4, MK5, MK6, PC1, PC2, PC3)
2. Define and describe pathophysiology and management of complications resulting from cirrhosis and portal hypertension. (MK1, MK2, MK3, PC2)
3. Define and describe when referral for liver transplant evaluation is appropriate by assessing severity of liver disease and short term prognosis in patients with cirrhosis. (MK4, MK5, PC1, PC3, PC4, PL3)
4. Observe and actively participate in the comprehensive evaluation required for patients undergoing liver transplantation evaluation, and the selection process that occurs in determining a patient’s potential candidacy. (MK4, PC1, PC4, PC5, PC6, CS1, SL1, IP2)
5. Describe the mechanism of action and common side effects, and toxicities of immunosuppressive agents used after liver transplant. (MK4, PC2, PC3)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. In Hepatology clinic, students will be responsible for creating a clinical plan for the patients.
2. Students will round with the Liver Attending on the inpatient Liver Service and hospital Liver Consults.
3. Students will observe outpatient endoscopy, to learn the management of patients with esophageal varices.
4. Students will attend the following Hepatology (and Gastroenterology) didactic conferences: GI Fellows Conference, Liver Biopsy Conference, Liver Imaging and Tumor Board, and Liver Transplant Selection Committee.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Complications of cirrhosis/portal hypertension: ascites, varices, hepatic encephalopathy, and spontaneous bacterial peritonitis
2. Complications that arise after liver transplant
3. Chronic hepatitis C (outpatient management and treatment)
4. Alcoholic liver disease (including patients with alcoholic hepatitis)
5. Patients with chronic hepatitis of unclear etiology (outpatient evaluation including the role of liver biopsy)

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Students will give their attending a mid-point evaluation form halfway through the rotation for performance assessment.
4. Attending physicians will provide students with a verbal evaluation at the end of the rotation.

Will students be expected to participate in call? ☐ YES ☒ NO
MED 846: Complex Wound Care

**Course Director:** Diane Whitworth, BSH, RN, CWOCN
Email: whitword@musc.edu

**Course Coordinator:** Mary Ann Snell
Telephone #: 843-792-7282
Email: snellma@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td></td>
<td>Block 3</td>
<td></td>
<td>Block 5</td>
<td></td>
<td>Block 7</td>
</tr>
<tr>
<td>Block 1A</td>
<td>0</td>
<td>Block 3A</td>
<td>1</td>
<td>Block 5A</td>
<td>1</td>
<td>Block 7A</td>
</tr>
<tr>
<td>Block 1B</td>
<td>1</td>
<td>Block 3B</td>
<td>1</td>
<td>Block 5B</td>
<td>1</td>
<td>Block 7B</td>
</tr>
<tr>
<td>Block 2</td>
<td></td>
<td>Block 4</td>
<td></td>
<td>Block 6</td>
<td></td>
<td>Block 8</td>
</tr>
<tr>
<td>Block 2A</td>
<td>1</td>
<td>Block 4A</td>
<td>0</td>
<td>Block 6A</td>
<td>0</td>
<td>Block 8A</td>
</tr>
<tr>
<td>Block 2B</td>
<td>1</td>
<td>Block 4B</td>
<td>1</td>
<td>Block 6B</td>
<td>1</td>
<td>Block 8B</td>
</tr>
<tr>
<td>Block 9</td>
<td></td>
<td>Block 9A</td>
<td></td>
<td>Block 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 9A</td>
<td>1</td>
<td>Block 9B</td>
<td></td>
<td>Block 10A</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? □ YES ☑ NO

**Course Description:** Students will work with the Wound, Ostomy, and Continence Nursing Team on a daily basis. The rotation will function as a consult service, with the student seeing patients with the team. The student will assist in patient teaching and will also work with the primary team to optimize wound care recommendations.

**Learning Goals & Objectives:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate comprehensive understanding of the physiology of wound healing and factors that affect repair. (MK1, MK2, MK3)
2. Identify wounds that require specialty nursing care. (PC1, PC3, PC4)
3. Identify various advanced wound care products and appropriate application. (MK5, MK7, MK8, PL3, PL6, SL2)
4. Demonstrate proper techniques for patient and family teaching. (PC5, CS1, CS3, PR3, PD6)
5. Demonstrate familiarity with proper wound assessment and documentation. (MK5, PC2)
6. Collaborate with interdisciplinary health care professionals in the care of patients and families. (CS4, IP1, IP2, IP3, IP4, PL4, SL4)

**Instructional Methodologies and Rotation Activities:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Direct patient care, including wound assessment, dressing selection and application, and patient and family education.
2. Rounds throughout ART and the main hospital, as well as outpatient clinics on campus.
3. Lectures/conferences pertaining to wound care.
4. Reading materials/resources on wound care best practices and the appropriate use of advance wound care products.

**Patient Encounters:** Students will be expected to work-up patients with conditions from all organ systems, including:
1. A variety of conditions, including fecal and urinary diversions, fistulae, surgical wounds, pressure injuries, refractory wounds, arterial/ischemic wounds, venous ulcers, and diabetic/neuropathic ulcers.
2. Negative Pressure Wound Therapy (NPWT) dressing application and trouble-shooting.
3. Patients pending fecal or urinary diversion surgery.

**Evaluation / Feedback Methods:** Students will be evaluated using the following methods:
2. Direct observation of student performance.
3. Students will receive feedback about performance at the midpoint of the course.

Will students be expected to participate in call? □ YES ☑ NO
COURSE DESCRIPTION:
Fourth-year medical students will work in this combined Medical ICU and Cardiac Care Unit with the interdisciplinary critical care team lead by Pulmonary and Critical Care and Cardiology physicians and house staff coverage by Pulmonary fellows and Internal medicine residents. Students will be directly involved in assessing, stabilizing, and treating critically ill patients with a variety of complex medical diseases such as sepsis, respiratory failure, shock, acute coronary syndrome, arrhythmia, renal failure. Students will become familiar with the basics of mechanical ventilation, intravenous fluids, shock and vasoactive medications, cardiac interventions, procedural indications and end-of-life care issues in the ICU. Students will observe and potentially perform invasive procedures.

Students will participate in a mandatory orientation day to cover essential critical care subject matter. Participation is expected at all simulation-based procedural skills modules unless absence is excused. Students will be expected to work at least 20 shifts. Make-up dates for unexcused absences will take place the final weekend of the rotation and then at the discretion of the unit director. There is no expectation of night call, but it can be offered by the unit director as an integral learning experience or as make-up for unexcused absences. This rotation is beneficial to students looking to match in Internal Medicine, Family Medicine, Emergency Medicine and other non-surgical, non-pediatric subspecialties.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Assess a critically ill patient and develop a timely, prioritized, and evidence-based plan for initial stabilization. (PC1, PC3)
2. Apply knowledge to develop evidence-based clinical plans for critically ill patients, including appropriate use of hemodynamic monitoring, application of ventilator modes and settings, and initiation and titration of vasomotor support. (MK4, MK5, PC3, PC6)
3. Be able to obtain Informed Consent for diagnostic and therapeutic tests and procedures including verbalization of risks, benefits and alternatives. (PC3, PC7, ICS1, SBP3)
4. Participate in and potentially perform procedures under direct supervision, including placement of arterial lines and central venous catheters while learning proper sterile technique. (MK8, PC7)
5. Demonstrate skills in the utilization of bedside Point-of-Care ultrasound for diagnosis in appropriate ICU patients. (PC1, MK5)
6. Identify relevant information in the primary medical literature regarding their patients’ disease states, and incorporate information from the literature into presentations and documentation. (PL3, CS5)
7. Demonstrate effective and professional interpersonal and communication skills, and model ethical behavior. (CS1, PR1, PR2)
8. Demonstrate empathy and discuss end of life issues with the patient and family including giving bad news. (PC1, PC3, CS1, CS2, CS3, PR3, PR1, PR2)
9. Perform a basic family meeting to discuss goals of care including discussing and obtaining code status. (PC1, PC4, CS1, CS2, CS3, PR1, PR2, PR3)
10. Work within a multidisciplinary team on daily rounds as an effective team member including mitigating patient risk and early identification of potential medical errors. (PR1, SL4, IP2, IP3, IP4)
11. Understand quality improvement metrics in the ICU and the team’s role in reducing hospital acquired infections including VAP, CAUTI, CLASBI, etc. (MK7, PR4, PL4, PL5, PL6, SL3, IP4)
12. Concisely summarize a patient’s critical illness and hand off important clinical information efficiently to other team members and consultants. (CS1, CS5, IP1, IP2, IP3, PC6)
13. Demonstrate an understanding of the pharmacology of sedation in the ICU including the prevention and treatment of pain, agitation and delirium (MK2, MK3, MK4, MK5, PC3, PL4)
14. Demonstrate a knowledge of airway management devices including high flow nasal cannula, NIV, BVM, LMA and endotracheal intubation. (MK1, MK4, MK8, PC6, PC7, CS1, CS2, PR3, PL2)
15. Describe the basic aspects of antimicrobial treatment and rational use of anti-infective therapeutic agents, as well as the negative patient complications of antimicrobial overuse. (PC3, PC6, PL3, PL6)
16. Write complete and succinct systems based medical plan with H&Ps and daily progress notes in EPIC. (MK3, MK4, MK5, PC2, PC3, PC6, CS1, CS5, PR1, PR4, PR5)
INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will participate in all aspects of care including initial assessment, diagnosis, management and patient/family communication and decision making for critically ill patients.
2. Students will be expected to present their patients on rounds, and patient-centered clinical and educational topics will be discussed.
3. Students will receive instruction in ventilator management, central line use, and invasive and non-invasive hemodynamic monitoring.
4. Students will learn about pharmacotherapy in the ICU, including vasopressors, antibiotics, and sedatives, and analgesic medications.
5. Students will have the opportunity to learn about and potentially perform a variety of procedures, including central venous catheter placement, arterial catheter placement, paracentesis, and thoracentesis.
6. Students will learn the principles of bedside point-of-care ultrasonography including thoracic, abdominal and bedside echocardiography.
7. Students will attend and participate in didactic teaching session and simulation modules as part of the curriculum.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with conditions from all organ systems, including:
1. Acute hypoxic/hypercarbic respiratory failure due to pneumonia, acute respiratory distress syndrome, COPD, or other processes.
2. Shock due to distributive pathophysiology (e.g., septic shock), cardiogenic compromise, obstructive mechanisms, or hypovolemia.
3. Acute renal failure including hyperkalemia, pulmonary edema, refractory acidemia and necessitating acute hemodialysis.
4. Neurologic conditions such as pain management, coma, encephalopathy, CVA and delirium.
5. Acute cardiovascular compromise including coronary artery disease, congestive heart failure, arrhythmias, valvular dysfunction.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Attending physicians and fellows will provide students with a verbal evaluation at end of rotation.
4. Students will give their attending a mid-point evaluation form for performance assessment.
**Does this rotation accept visiting students?** ☑ YES ☐ NO

**COURSE DESCRIPTION:**
Students rotating on the Nephrology Consult Service will care for patients with Acute Kidney Injury (AKI), electrolyte abnormalities, CKD, kidney transplants, and End Stage Renal Disease in the hospital with an emphasis on evaluating, diagnosing, and treating of AKI. Students will also be expected to attend at least one ambulatory clinic per week to understand and participate in the care of the patient with Chronic Kidney Disease (CKD). Students will learn about outpatient dialysis at the DCI dialysis units, under faculty supervision. Students will rotate at the VA Clinic weekly. **Active VA login/codes are required BEFORE start of rotation.**

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Complete an evaluation for Acute Kidney Injury (AKI), interpret lab, radiological studies and synthesize a differential diagnosis. (MK1, MK3, MK4, MK5, MK7, MK8, PC1, PC2, PC3, PC 4, PC 5, CS1, CS2, CS3, CS 4, PD1, PD 6)
2. Describe the steps involved in urine microscopy and interpretation of urine microscopy in patients with AKI. (MK5, PC7)
3. Define and describe the indications for dialysis therapy and the mechanics of different modes of dialysis. (MK5, MK6, PC1, PC2, PC3, PC 4, PC 5, CS1, CS2, CS 3, CS 4, PR2, PL2, PD1, PD 6)
4. Evaluate and treat hypo/hypernatremia, hypo/hyperkalemia, acidosis and alkalosis. (MK1, MK2, MK3, MK4, MK5, MK 6, MK7, MK8, PC1, PC2, PC3, PC6, CS1, CS2, CS3, CS4, PD1, PD 6)
5. Define and describe the treatment and public health significance of Chronic Kidney Disease and hypertension. (MK1, MK2, MK3 MK4, MK5, MK6, MK7, MK 8, PC1, PC2, PC3, PC4, PC5, PC6, CS1, CS2, CS 3, CS 4, PL6, SL1, PD1, PD 6)
6. Write complete and succinct consult and follow up notes in EPIC. (MK3, MK4, MK5, PC2, PC3, PC6, CS1, CS5, PR1, PR4, PR5, PD1, PD 6)
7. Describe the basic evaluation of patients for renal transplantation. (MK1, MK3, MK4, MK5, MK7, MK8, PC3, PC 4, PC 5, PC 6, CS1, CS2, PD1, PD 6)
8. Evaluate AKI and transplant complications in renal transplant patients. (MK1, MK3, MK4, MK5, MK7, MK8, PC1, PC2, PC3, CS1, CS2, CS3, CS4, PD1, PD 6)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will evaluate patients both in hospital and in clinic and present patients orally to the attending physician to attain feedback on presenting cohesively and on ability to synthesize information and provide a well thought out plan. Students will also write an initial consult note and follow up notes in the electronic medical record under the student tab (EPIC).
2. Students are expected to continue independent scholarly activity by reading journal articles and/or books pertinent to their patients.
3. The nephrology faculty and fellows on service will be actively involved in team-based teaching during the rounds.
4. The faculty and fellows on service dedicate time outside patient care activities to provide didactic sessions involving, but not restricted to, AKI, CKD, renal transplant, electrolyte and acid base problems, and dialysis.
5. Students will complete modules and attend conferences, which cover physician handoffs, consultative medicine, and palliative care.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Acute Kidney Injury and Acute Glomerulonephritis
2. Electrolyte Disorders: hyponatremia, hypernatremia, hyperkalemia
3. Proteinuria with and without nephrotic syndrome
4. Acid-Base Disturbances
5. Chronic kidney disease
6. End stage renal disease: management of medical problems associated with ESRD.
7. Renal transplantation
EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Completion of Urinalysis Laboratory Module.
3. Graded history and physical with assessment and plan.
4. Students will be evaluated and feedback will be given by the attending half way through the rotation for performance assessment.
5. Students will receive formative feedback via completion of online modules, which include assessment questions/quizzes.

Will students be expected to participate in call? ☐ YES ☒ NO
Does this rotation accept visiting students? ☒ YES ☐ NO

**COURSE DESCRIPTION:**
This is an inpatient consultation service rotation designed to expose 4th-year medical students to the field of cardiology. The student will be exposed to patients with cardiac diseases, learn the diagnostic approach, as well as medical management of these patients. Two students will be assigned to the ART and two students will be assigned to the VA; active VA logins and codes are required before starting rotation.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Take a good cardiac history and demonstrate understanding of cardiac risk factors. (MK3, MK4, PC1, CS1)
2. Perform and accurately document a complete cardiovascular examination. (PC1, CS5)
3. Explain use of lab tests, EKGs, ECHO, stress testing and cardiac invasive procedures in working up cardiac disorders. (MK5, PC2)
4. Describe basic cardiac, coronary and electrophysiological anatomy, and basic cardiac hemodynamics. (MK1, MK2, MK6, PC2)
5. Present new cases confidently, follow-up cases assigned and work efficiently as a team member. (MK3, PC2, CS5, IP2)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. When on the consult service students will practice reviewing charts, obtaining medical history, performing physical examination, reviewing laboratory data, discussing gathered material with fellow and attending, and writing up consult report.
2. Students should attend all Cardiology conferences and didactic sessions that the division offers. (7:30-8:30 am, M, W-F)
3. Students will complete online modules and attend conferences that cover physician handoffs, consultative medicine, and palliative care.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Coronary artery disease
2. Congestive heart failure
3. Arrhythmia
4. Valvular heart disease
5. Risk Factor Modification (EM, HTN, Hyperlipidemia, Smoking)

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Students will give their attending a mid-point evaluation form for performance assessment.
4. Attending physicians and fellows will provide students with verbal evaluation at the end of the rotation as well as a formal electronic evaluation.
5. Students will receive formative feedback via the completion of online modules that include assessment questions/quizzes.

Will students be expected to participate in call? ☐ YES ☒ NO
**Course Director:** Pooja Elias, MD  
Email: eliasps@musc.edu  

**Course Coordinator:** Mary Ann Snell  
Telephone #: 843-792-7282  
Email: snellma@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>2</td>
<td>Block 3</td>
<td>2</td>
<td>Block 5</td>
<td>2</td>
<td>Block 7</td>
<td>2</td>
<td>Block 9</td>
<td>2</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
<td>Block 9A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
<td>Block 9B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>2</td>
<td>Block 4</td>
<td>2</td>
<td>Block 6</td>
<td>2</td>
<td>Block 8</td>
<td>2</td>
<td>Block 10</td>
<td>2</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
<td>Block 10A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
<td>Block 10B</td>
<td></td>
</tr>
</tbody>
</table>

**Does this rotation accept visiting students?** ☒ YES ☐ NO

**COURSE DESCRIPTION:**  
This is a predominantly inpatient consultation rotation designed to expose fourth-year medical students to the field of Gastroenterology. There are self-directed opportunities to participate in the outpatient clinical setting. Students will be exposed to patients with digestive diseases and learn diagnostic approaches and medical management of these patients. Students will also observe endoscopic procedures and understand their role in the care of these patients. Students will rotate at the VA Clinic weekly. **Active VA login/codes are required BEFORE start of rotation.**

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Identify typical clinical presentations of various etiologies of abdominal pain (peptic ulcer disease, cholecystitis, pancreatitis, bowel obstruction). (MK1, MK2, MK3, MK4)
2. Define and describe the diagnosis and treatment of esophageal disorders such as GERD, dysphagia, Barrett’s esophagus. (MK4, MK5, PC2, PC3)
3. Define and describe the basic causes of diarrhea and outline an appropriate diagnostic work-up for both acute and chronic diarrhea. (MK4, MK5, PC1, PC2)
4. Define and describe the role of endoscopy for both screening and therapeutic purposes. (MK5, PC3, PC4, CS4)
5. Demonstrate professional demeanor, ethical behavior, and effective communication skills in interactions with patients. (PC1, CS1, CS2, PR1, PR2)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Bedside teaching during daily team rounds (inpatient consultation service) or in clinic (outpatient service).
2. Formal didactic GI Divisional conferences held on a weekly basis.
3. Informal didactic sessions throughout the rotation focusing on topics/cases proposed by the student/housestaff.
4. Observation of endoscopic procedures such as EGD, colonoscopy, ERCP, EUS, small bowel capsule study, and motility studies.
5. Directed reading on general and selected topics in Gastroenterology.
6. Students will complete online modules, attend conferences that cover physician handoffs, consultative medicine, & palliative care.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Cholecystitis/Peptic ulcer disease/Pancreatitis
2. Inflammatory bowel disease/Irritable bowel syndrome
3. Diarrhea: acute vs chronic
4. Dysphagia/GERD
5. Bowel obstruction

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Students will give their attending a mid-point evaluation form half way through the elective for performance assessment.
4. Attending physicians and fellows will provide students verbal evaluation at end of rotation.
5. Students will receive formative feedback via the completion of online modules that include assessment questions/quizzes.

**Will students be expected to participate in call?** ☐ YES ☒ NO
**COURSE DESCRIPTION:**
This course introduces the student to the general approach to diagnosis and management of common oncologic and hematologic disorders. The student will have the opportunity to see new and existing inpatients and/or outpatients, acquire the skills needed to take appropriate histories and perform physical exams, and formulate assessments and management plans. The rotation includes 2 weeks with oncology consults/clinic and 2 weeks with hematology consults/clinic. However, the entire 4 weeks may be spent on one discipline in lieu of the usual 2 weeks on each at the discretion of the course directors.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:

**Hematology-specific:**
1. Discuss, diagnose, and treat common congenital and acquired bleeding disorders, and common thrombotic disorders including venous thromboembolism (VTE) and heparin-induced thrombocytopenia (HIT). (MK3, MK5, PC1, PC2, PC3)
2. Provide safe and effective anti-thrombotic therapy using heparin, low molecular weight heparin, warfarin, direct thrombin inhibitors, and direct oral anticoagulants. (MK5, MK8, PC5, PC6)
3. Interpret peripheral blood smears and clinical lab tests to diagnose common disorders of red blood cells, platelets, and white blood cells. (MK1, MK3, MK4, MK6, PC1, PC2, PC3)

**Oncology-specific:**
1. Apply knowledge of the pathophysiology, epidemiology, and natural history of neoplastic diseases to the diagnosis and staging of common patient conditions in oncology. (MK1, MK2, MK3, PC1, PC2)
2. Assist in the development of treatment plans for patients with newly diagnosed malignancies. (MK5, MK6, PC3, PC4, PC6, CS4)
3. Recognize and understand preliminary treatment of common complications of chemotherapy. (MK5, PC6)

**Common to both:**
1. Demonstrate effective and professional interpersonal and communication skills, and model ethical behavior. (CS1, PR1, PR2)
2. Demonstrate proper techniques to obtain medical history and perform physical exam in the consultative and outpatient setting. (PC1, CS1)
3. Present and document patient data gathered from interviews, examinations, and records in standardized format. (CS1, CS5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Attend up to 2 half-day clinics per week (subject to availability) and complete outpatient evaluation of at least one new patient and one follow-up patient in each clinic.
2. Attend afternoon rounds with Oncology or Hematology Consult Service. Perform at least 3 new consult evaluations per week and follow-up evaluations of these patients.
3. Review peripheral blood smears during the Hematology consult service rounds in the Hematology lab.
4. Participation in formal division conferences, including core curriculum lectures, grand rounds, tumor boards, and Journal Club.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:

**Hematology:**
1. Cytopenias (anemia, leukopenia and thrombocytopenia)
2. Acquired coagulation disorders (liver disease, chronic kidney disease)
3. Congenital and acquired bleeding disorders, VTE, and HIT

**Oncology:**
1. Newly diagnosed solid tumors - commonly encountered in the inpatient and outpatient setting such as lung cancer, colon cancer, prostate cancer, etc.
2. Common problems associated with chemotherapy (neutropenic fever, tumor lysis syndrome, severe diarrhea, etc)

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Students will give their attending a mid-point evaluation form halfway through the rotation for performance assessment.
4. Attending physicians and fellows will provide students with verbal evaluations at the end of the rotation.
5. Pre-rotation hematology test will assist in identifying areas that are well understood and those that could improve with further study.

**Will students be expected to participate in call?**  ☐ YES ☒ NO
**Does this rotation accept visiting students?** ☑ YES ☐ NO

**COURSE DESCRIPTION:**
This is an outpatient clinical and inpatient consultation service rotation designed to expose the 4th-year medical student to the field of Infectious Disease. The student will be directly involved with assessment, diagnosis and diagnostic approach, as well as medical management of patients with complex infections. With supervision and guidance from fellows and faculty, the student will develop treatment plans and gain an understanding of common infections and their treatment with antimicrobials. The student will also be familiarized with the basic outpatient care of the patient living with HIV.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:

1. Diagnose and assess common community and hospital acquired infections and develop a timely evidenced based plan of care for the patient. (MK4, MK8, PC1, PC2, PC3)
2. Describe the basic aspects of antimicrobial treatment and rational use of anti-infective therapeutic agents, as well as the negative patient and societal complications of antimicrobial overuse. (PC3, PC6, PL3, PL6)
3. Develop a basic knowledge of HIV diagnosis, management, and health maintenance as well as an understanding of the role of appropriate HIV care in addressing population health through decreased transmission and in addressing racial and ethnic health disparities. (MK4, PC6, SL4, PL6)
4. Provide non-judgmental and compassionate care to patients with stigmatizing infections and develop a therapeutic relationship built on trust and honesty. (PC3, PR1, PR2, CS3, CS3)
5. Provide appropriate consultative care and communicate with other members of the patient’s care team in a clear and effective manner. (PC5, CS4, IP3)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:

1. Students will participate in clinical care both for inpatient and outpatients which will involve assessment, diagnosis and management of patients with infectious diseases. A minimum of 2 weeks of consultation rounds with the Infectious Disease attending and fellow at MUHA, ART, or VA will provide extensive exposure to the diagnosis and treatment of infectious diseases, with up to an additional two weeks spent in the Infectious Diseases clinics.
2. Clinical experience is supplemented and extended by case conferences including both HIV and non-HIV conferences, grand rounds, and journal clubs.
3. Small group teaching sessions geared towards medical students in their clinical years will cover core infectious disease topics.
4. An infectious disease textbook is provided to each student during the rotation to supplement clinical and didactic teaching.

**PATIENT ENCOUNTERS:** Students will be expected to assess, diagnose and create a treatment plan for patients with these specified conditions: HIV/AIDS, post-surgical and traumatic wound infections, prosthetic joint infections, osteomyelitis, bacteremia, and complicated skin and soft tissue infections.

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:

2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Students will give their attending a mid-point evaluation form half way through the rotation for performance assessment.
4. Attending physicians and fellows will provide students with verbal evaluation at the end of the rotation.

**Will students be expected to participate in call?** ☑ YES ☐ NO
MED 862: Endocrinology AME

**Course Director:** Nicoleta D. Sora, MD
Email: sora@musc.edu

**Course Coordinator:** Mary Ann Snell
Telephone #: 843-792-7282
Email: snellma@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>2</td>
<td>Block 3</td>
<td>2</td>
<td>Block 5</td>
<td>2</td>
<td>Block 7</td>
<td>2</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>2</td>
<td>Block 4</td>
<td>2</td>
<td>Block 6</td>
<td>2</td>
<td>Block 8</td>
<td>2</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
</tr>
<tr>
<td>Block 9</td>
<td>2</td>
<td>Block 9B</td>
<td></td>
<td>Block 10</td>
<td>2</td>
<td>Block 10A</td>
<td></td>
</tr>
<tr>
<td>Block 9A</td>
<td></td>
<td>Block 10B</td>
<td></td>
<td>Block 10A</td>
<td></td>
<td>Block 10B</td>
<td></td>
</tr>
</tbody>
</table>

**Does this rotation accept visiting students?** ☑ YES ☐ NO

**COURSE DESCRIPTION:**
During this course, fourth-year medical students will see patients with endocrine disorders. Students will be able to establish a diagnostic and treatment plan. Students will rotate at the VA Clinic weekly. **Active VA login/codes are required BEFORE start of rotation.**

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to:
1. Define and describe pathophysiology of common endocrine disorders. (MK3, MK4)
2. Evaluate, with supervision, endocrine disorders commonly seen in primary care. (MK5, MK8, PC1, PC2)
3. Define and describe treatment strategies for these diseases. (MK6, PC3, PC4, PC5)
4. Describe the importance of laboratory investigation in evaluations. (MK5, MK8, PC3)
5. Discuss the importance of endocrine research in this field. (PL2, PL3, PL4, PL5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Student will see patients in attending clinics.
2. Student will work with inpatient consultation team and will see patients in inpatient setting.
3. Student will participate in weekly grand rounds and journal club.
4. Students will complete online modules and attend conferences which cover physician handoffs, consultative medicine, and palliative care.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Diabetes Mellitus (Type I and II)
2. Diseases of the Thyroid
3. Diseases of the Adrenal Gland
4. Osteoporosis

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. The students will give their attending a mid-point evaluation form half way through the rotation for performance assessment.
4. Attending physicians will provide students with a verbal evaluation at the end of the rotation.
5. Students will receive formative feedback via the completion of online modules, which include assessment questions and quizzes.

**Will students be expected to participate in call?** ☑ YES ☐ NO
COURSE DESCRIPTION:
This externship is designed to give students a broad-based experience in managing acutely ill general medicine patients. The rotation provides an opportunity to develop independent clinical practice skills, with guidance and supervision from a Medicine team of interns, residents, and attending (VA, ART or Main Hospital Medicine teams.) Students will function at the level of an intern, being primarily responsible for their patients’ plan of care, communication, and documentation. For students assigned to the VA Hospital, active VA login/codes are required BEFORE start of rotation.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Demonstrate the ability to perform an efficient yet comprehensive history and physical exam. (MK1, MK6, PC1)
3. Develop differential diagnoses by explicitly prioritizing and weighing pertinent positives and negatives. (MK4, MK5, PC2)
4. Formulate a treatment plan for hospitalized patients at the level of an intern and implement the treatment plan to manage a patient’s clinical problem, including placing orders. (MK3, MK4, PC3)
5. Describe indications/need for appropriate subspecialty consultation and formulate a cogent consult question. (MK6, PC2, PC3, PC4)
6. Recognize key clinical information and effectively communicate this to covering providers in the form of patient handoff. (PC3, PC7, CS1, IP3)
7. Develop an appropriate discharge plan and facilitate care coordination to ongoing providers including formulating a concise yet thorough discharge summary. (PC4, SL2, IP4, CS5)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. The majority of teaching on the General Medicine service is case-based at the time of clinical encounters. Inpatient rounds provide the best opportunities for education at the bedside, including demonstrating history taking or examination skills, modeling communication, or exploring medical knowledge, with emphasis on published clinical evidence supporting clinical decision-making.
3. Attend morning report three days per week. Attendance at Grand Rounds and noon conferences is encouraged.
4. The attending physician or senior resident may also conduct didactic sessions on multiple occasions throughout the month.
5. Students are expected to engage in self-directed learning by accessing the primary medical literature and incorporating evidence from the literature into their presentations, documentation, and the end-of-rotation teaching presentation.

PATIENT ENCOUNTERS: Students will be expected to evaluate, diagnose and treat patients with these specified conditions:
1. Students care for a diverse patient population with respect to age, ethnicity, gender and socioeconomic status.
2. Students will care for patients with a wide variety of clinical syndromes including chest pain, coronary artery disease, CVA, CHF, diabetes mellitus, pneumonia, COPD, asthma, pyelonephritis, acute and chronic renal insufficiency, SLE, vasculitis, dementia and many others.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Students will give their attending a mid-point evaluation form halfway through the rotation for performance assessment.
4. The attending physicians and fellows will provide students verbal evaluation at the end of the rotation.
5. Students will prepare and give a 15-minute presentation on a topic of their choosing to their teams and course director or will present a morning report case for all internal medicine students and course director at the end of the rotation.

Will students be expected to participate in call?  ☑ YES  ☐ NO
During the month-long rotation, students will take 5 overnight (in-house) calls and work an additional 3 nights until 8:00 p.m.
MED 865: Pulmonary Medicine AME

Course Director: Edward Kilb, MD  
Email: kilbiii@musc.edu  
Course Coordinator: Mary Ann Snell  
Telephone #: 843-792-7282, Email: snellma@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>3</td>
<td>Block 3</td>
<td>3</td>
<td>Block 5</td>
<td>3</td>
<td>Block 7</td>
<td>3</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>3</td>
<td>Block 4</td>
<td>3</td>
<td>Block 6</td>
<td>3</td>
<td>Block 8</td>
<td>3</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☒ YES ☐ NO

COURSE DESCRIPTION:  
On this rotation, students participate in the care of pulmonary patients on the Pulmonary Consult service. Students are primarily responsible for the patients they evaluate on the Consult service, presenting patients on rounds, documenting assessments and plans in the medical record, and communicating consult recommendations to patients and requesting teams. Students will participate in evaluation of pre-operative patients in pulmonary clinic. Students will learn basic bedside ultrasound, how to interpret pulmonary function tests, and are exposed to and potentially perform common pulmonary procedures. Students will use the primary literature to develop an evidence-based teaching presentation on a topic of their choosing to present to the Consult service and the course director.

LEARNING GOALS & OBJECTIVES:  
At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate proper patient interview and physical examination techniques in the context of consultative medicine. (PC1, CS4)
2. Analyze, synthesize, and integrate pertinent patient data to formulate a comprehensive and logically ordered differential diagnosis when assessing patients on the Pulmonary Consult service. (MK4, MK6, PC1, PC2)
3. Present and document data gathered from patient interviews, physical examinations, and laboratory sources, in standardized format in both initial consult notes and daily progress notes. (PC2, PC3, CS4, CS5)
4. Perform diagnostic and laboratory test interpretation for common studies used in pulmonary medicine (e.g. chest x-rays and pulmonary function tests), and actively consider cost-effectiveness when ordering or recommending diagnostic studies. (MK4, MK5, PC2, PL4, SL2)
5. Apply knowledge of the pathophysiology, epidemiology, and natural history of diseases to the diagnosis and management of common patient conditions in pulmonary medicine. (MK3, MK4, MK6, MK8, PC2, PC3)
6. Demonstrate effective and professional interpersonal and communication skills in interactions with patients and their families, including an awareness of psychosocial factors related to patients’ problems. (CS1, PR1, PR2)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:  
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will participate on the Pulmonary Consult service, and evaluate consult patients under attending and fellow supervision.
2. Students will present and discuss patients with the consult attending, fellow, and team.
3. Students will complete selected reading material on topics pertinent to the pulmonary medicine.
4. Attendance at Pulmonary Core Clinical Conferences at noon on Mondays, Tuesdays, and Thursdays.
5. Students will complete online modules, attend conferences that cover physician handoffs, consultative medicine, & palliative care.

PATIENT ENCOUNTERS:  
Students will be expected to work-up patients with these specified conditions:
1. Chronic respiratory failure, including very severe COPD with hypoxemia and/or hypercarbia
2. Obstructive lung diseases, including COPD (due to either emphysema and/or chronic bronchitis), asthma, and bronchiectasis
3. Restrictive lung diseases, including interstitial lung disease, pleural effusion, pneumoconiosis, and collagen-vascular diseases
4. Pulmonary malignancies, including non-small cell lung cancer, small cell lung cancer, metastases, and malignant effusions

EVALUATION / FEEDBACK METHODS:  
Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Students will give their attending a mid-point evaluation form half way through the rotation.
4. Attending physicians and fellows will provide students with verbal evaluation at the end of the rotation.
5. Students will receive formative feedback at the completion of online modules including assessment questions/quizzes.
6. Students will prepare and give a 15-minute presentation on a topic of their choosing to their teams/course director at rotation end.

Will students be expected to participate in call? ☐ YES ☒ NO
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
This rotation will emphasize the evaluation and management of patients with common musculoskeletal and autoimmune conditions. The majority of the time will be spent in the ambulatory Rheumatology clinics. With supervision and guidance, students may assist and/or perform procedures such as nailfold capillaroscopy, polarized microscopy and arthrocentesis. Limited exposure to complicated inpatient consultations is available. Students will have intense one-on-one contact with multiple Rheumatology faculty members in learning to evaluate patients. Students will rotate at the VA Clinic weekly; **active VA logins and codes are required before starting the rotation.**

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Evaluate patients with joint pain and inflammatory arthritis. (MK3, MK4, PC1, PC2, CS1, CS4)
2. Perform musculoskeletal exam techniques and describe procedures such as arthrocentesis and injections. (MK5, MK8, PC7, CS1)
3. Perform a diagnostic evaluation of patients with suspected autoimmune disease. (MK5, MK6, PC3)
4. Describe commonly utilized therapies in treating patients with a broad range of musculoskeletal diseases. (MK5, MK7, MK8, PC5)
5. Demonstrate effective and professional interpersonal and communication skills, and model ethical behavior. (CS1, CS2, PR1, PR2)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. The majority of time is spent in ambulatory clinics, where students will have intense one-on-one contact with faculty in the evaluation of ambulatory patients.
2. Instruction on indications and methodology for joint aspiration and injection, including hands on when applicable.
3. Students will attend and participate in all conferences and teaching sessions.
4. Students will learn pharmacotherapy related to rheumatology, including disease-modifying anti-rheumatic drugs (DMARDs), biologics, and other immunosuppressant and anti-inflammatory medications.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Inflammatory arthritis including rheumatoid arthritis (RA), psoriatic arthritis, and others
2. Connective tissue disorders including systemic lupus erythematosus (SLE), systemic sclerosis / scleroderma, Sjogren’s syndrome, and others
3. Vasculitis including ANCA-associated vasculitis and giant cell arteritis (GCA)
4. Crystalline arthritis including gout and pseudogout

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. The students will give their attending a mid-point evaluation form halfway through the rotation for performance assessment.
4. Documentation of patient encounters is expected and the Electronic Medical Record will be utilized and reviewed with the student by the attending physician.
5. Preparation and presentation of a 10-15 minute talk to the division on an aspect of rheumatology encountered in their clinical experience. Feedback and evaluation will be given by the teaching attending and teaching fellow that month.
6. Participation in the weekly scheduled conferences and teaching sessions.
7. Students will receive formative feedback via completion of online modules that include assessment questions/quizzes.

Will students be expected to participate in call? ☐ YES ☑ NO
COURSE DESCRIPTION:
The Congestive Heart Failure (CHF)/Transplant Selective is an inpatient rotation designed to give students an in-depth experience assessing and treating complex patients with a primary diagnosis of congestive heart failure. In addition to medical management, students will be exposed to the intricacies of selecting treatment options for advanced heart failure therapy including heart transplantation and left ventricular assist device placement.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Define and describe pathophysiology and clinical features of congestive heart failure. (MK3, MK4, MK6, PC1)
2. Define and describe pharmacological and device therapy of congestive heart failure. (MK5, MK6, PC3, PL2)
3. Identify arrhythmias and describe their therapy in congestive heart failure. (MK4, MK5, PC1, PC3, PL2)
4. Define and describe evaluation for heart transplant including post-transplant care. (MK5, PC3, SL2, IP4)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will evaluate inpatients under attending and fellow supervision. They will take and record a detailed history and physical of new patients. Cardiovascular examination skills will be imparted to the students at the bedside.
2. Students will be taught cardiovascular hemodynamics and the use of pulmonary artery catheters, right heart catheterizations and how to titrate medications.
3. Students will follow CHF patients who are supported by durable mechanical left ventricular assist devices. They will learn about patient selection, device selection and patient management with respect to long term management of these devices.
4. Students will be exposed to cardiac transplant medicine and learn about patient selection, postoperative and long term transplant care. Additionally, they will learn about the end organ complications, malignancies and infectious disease complications of heart transplant.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Students will encounter patients along the entire continuum of heart failure management, including new onset CHF, acutely decompensated heart failure, severe chronic heart failure, ischemic cardiomyopathy, non-ischemic cardiomyopathy, restrictive cardiomyopathy, and dilated cardiomyopathy. Students will be expected to evaluate and, with housestaff supervision, manage this challenging group of patients.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. The students will give their attending a mid-point evaluation form halfway through the rotation for performance assessment.
4. Attending physicians and fellows will provide students with a verbal evaluation at the end of the rotation.

Will students be expected to participate in call? ☐ YES ☒ NO
MED 891: Medicine Hospitalist Consults, AME

Course Director: Marc Heincelman, MD
Email: heincelm@musc.edu

Course Coordinator: Mary Ann Snell
Telephone #: 843-792-7282
Email: snellma@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>1</td>
<td>Block 3</td>
<td>1</td>
<td>Block 5</td>
<td>1</td>
<td>Block 7</td>
<td>1</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>1</td>
<td>Block 4</td>
<td>1</td>
<td>Block 6</td>
<td>1</td>
<td>Block 8</td>
<td>1</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☑ YES ☐ NO

Course Description:
This course is designed to expose 4th-year medical students to the common general medicine diseases, particularly post-operative complications that are seen in the inpatient setting on a consultative basis.

Learning Goals & Objectives:
At the completion of this clinical rotation students should be able to do the following:
1. Define and apply risk assessment and risk reduction strategies in patients with medical problems undergoing surgery. (MK4, MK7, PC3, PC5, PL3)
2. Demonstrate fundamentals of perioperative cardiovascular, pulmonary, and diabetes management. (MK3, MK4, PC3)
3. Demonstrate basics of perioperative venous thromboembolism prophylaxis, anticoagulation management, and antibiotic prophylaxis management. (MK4, PC3, SL2)
4. Demonstrate understanding of diagnosis and treatment of basic nosocomial infections such as pneumonia and urinary tract infections. (MK3, MK4, PC3, SL2)

Instructional Methodologies and Rotation Activities:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will round with the general medicine/hospitalist consult team at MUSC.
2. Students are expected to independently evaluate patients, follow and write daily notes on their patients, and present findings and plans to the hospitalist attending.
3. The consult team at MUSC consists of an attending hospitalist and potentially a medical resident who will work with and provide feedback to medical students during the rotation.
4. Students are encouraged to come to the department’s conferences such as morning report and grand rounds.

Patient Encounters:
Students will be expected to work-up patients with these specified conditions:
1. Sinus tachycardia
2. Hypertension
3. Pneumonia
4. Urinary tract infections
5. Deep vein thrombosis/pulmonary embolus
6. Diabetes mellitus
7. Anemia

Evaluation / Feedback Methods:
Students will be evaluated using the following methods:
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Students will give their attending a mid-point evaluation form half way through the elective for performance assessment.
4. Attending physicians will provide students with verbal evaluation at the end of the rotation.

Will students be expected to participate in call? ☐ YES ☑ NO
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
This outpatient clinical stroke rotation is designed to give 4th-year medical students an opportunity to interact with the Department of Neurology stroke faculty in a clinical setting. They will have the opportunity to learn stroke etiologies, diagnosis, treatment and management, secondary stroke prevention and stroke recovery, and management of post-stroke complications.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Discuss stroke diagnosis, secondary stroke prevention and management of post-stroke complications. (MK3, PC5, CS1, PL3, SL1)
2. Recognize common stroke syndromes and correlate with the neuro-anatomy involved. (MK4, CS1, PC3, PL5)
3. Conduct a complete history and neurological examination in stroke patients. (PC1, CS4, PR1)
4. Discuss tele-stroke consultations learned through observation or faculty demonstration. (PC1, PC3, CS4, PR1, PL2, PL4, SL1, SL2)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Patient contact under attending supervision in stroke outpatient clinic and post-stroke spasticity management clinic.
2. Attend daily neurology/stroke conferences which may involve directed reading/literature reviews.
3. One-on-one or group discussions.
4. Read review papers assigned for the rotation on important stroke topics.
5. Oral, written, or small group presentation on stroke topics as assigned.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. New stroke consults – patients referred to the stroke clinic by MUSC and non-MUSC physicians.
2. Post-stroke hospitalization follow-ups
3. Post-stroke limb spasticity clinic

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Verbal feedback from the course director or the stroke faculty.
3. Midpoint feedback from the course director or the assigned faculty.

Will students be expected to participate in call? ☐ YES ☑ NO
NEURO 845: Neuro-Ophthalmology

**Course Director:** Aljoeson Walker, MD  
Email: walkeral@musc.edu  

**Course Coordinator:** Jerri O’Banner  
Telephone #: 843-792-0078  
Email: stanleyj@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>1</td>
<td>Block 3</td>
<td>1</td>
<td>Block 5</td>
<td>1</td>
<td>Block 7</td>
<td>1</td>
<td>Block 9</td>
<td>1</td>
</tr>
<tr>
<td>Block 1A</td>
<td>Block 3A</td>
<td>Block 5A</td>
<td>Block 7A</td>
<td>Block 9A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td>Block 3B</td>
<td>Block 5B</td>
<td>Block 7B</td>
<td>Block 9B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>1</td>
<td>Block 4</td>
<td>1</td>
<td>Block 6</td>
<td>1</td>
<td>Block 8</td>
<td>1</td>
<td>Block 10</td>
<td>1</td>
</tr>
<tr>
<td>Block 2A</td>
<td>Block 4A</td>
<td>Block 6A</td>
<td>Block 8A</td>
<td>Block 10A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td>Block 4B</td>
<td>Block 6B</td>
<td>Block 8B</td>
<td>Block 10B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
Students will learn and apply neurology knowledge to the ophthalmic system. He or she will be able to reasonably identify and appropriately determine objectives indicated for the visual concerns of the patient. Reading materials are *Neuro-Ophthalmology: Clinical Signs and Symptoms* (Thomas J. Walsh) and *Neuroradiology* (D. Yousem and R. Grossman).

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Perform the key features of the Neuro-Ophthalmic Examination. (PC1, PC2)
2. Identify misalignment/muscle imbalance of the eyes. (MK1, MK3)
3. Identify papilledema and discuss its differential diagnosis in neuro-ophthalmologic diseases. (PL2, MK5)
4. Discuss neurologic disease as it relates to the visual system. (MK1, MK3)
5. Discuss the use of treatment options as they pertain to neuro-ophthalmologic diseases. (CS1, CS2, CS3, SL4)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Attendance at neurosciences and selected neuro-ophthalmology conferences.
2. Patient contact with patients primarily in outpatient clinics.
3. Student will develop an Independent Patient Case Presentation in the area of neuro-ophthalmologic, Demyelinating Diseases, or headache disorders, to be presented during the course.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Migraine and related visual issues
2. Papilledema and headache complaints
3. Diplopia
4. Complicated visual issues, Multiple Sclerosis, Idiopathic Intracranial Hypertension (Pseudotumor Cerebri) and or migraine
5. Spinal taps - when available

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Daily verbal feedback from the course director or the assigned faculty co-director.
3. Midpoint feedback from the course director or the assigned faculty co-director.

Will students be expected to participate in call? ☑ YES ☐ NO
Does this rotation accept visiting students? ☑ YES ☐ NO

COURSE DESCRIPTION:
This elective exposes students to the spectrum of neurologic disease in infants, children, and adolescents through a mixture of inpatient and outpatient experiences. The emphasis is on mastering the fundamentals of taking a neurologic history and performing a neurologic examination, localizing lesions within the neuraxis, selecting diagnostic tests, and managing common neurologic disorders.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Elicit accurate neurologic histories and perform comprehensive neurologic exams on patients of varying ages. (PC1, MK1)
2. Demonstrate increasing sophistication in interpretation/synthesis of clinical findings into rational differential diagnoses. (MK3, PC2)
3. Select appropriate laboratory studies to establish specific diagnoses. (MK5, PC3)
4. Demonstrate an increased understanding of management principles including appropriate choice of therapeutic modalities and the inherent risks of each. (MK6, PC6)
5. Exhibit effective communication skills with pediatric patients and their parents. (CS1, CS3, PC5)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Patient contact
2. One-on-one and/or group discussions
3. Attendance at neuroscience conferences including the Pediatric Neurology Thursday A.M. Conference
4. Independent study and directed readings
5. Participation in outreach opportunities when available

PATIENT ENCOUNTERS: Students will be expected to work-up patients with some of these specified conditions:
1. Seizures (febrile, new-onset, status epilepticus)
2. Headache
3. Cerebral palsy and developmental delay
4. Movement disorders (includes tics and Tourette syndrome)
5. Concussion and traumatic brain injury
6. Other conditions as available including brain tumors, neuromuscular disorders, neurocutaneous syndromes, inborn errors of metabolism/mitochondrial disorders, and demyelinating disorders.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Daily verbal feedback from the course director or the assigned faculty co-director.
3. Midpoint feedback from the course director or the assigned faculty co-director.

Will students be expected to participate in call? ☑ YES ☐ NO
Does this rotation accept visiting students? ☒ YES ☐ NO

COURSE DESCRIPTION:
Students will be exposed to clinical neurovascular (stroke) patients to acquire a basic knowledge of the clinical examination and patient interviewing, vascular risk factors for stroke and neuro-imaging (CT, MRI, TCD, etc.). Academic opportunities will be presented by participating in Stroke Ward rounds, Stroke Clinic, research and clinical meetings/conferences with Neurology residents, Neurovascular fellows, and Neurovascular attending neurologists. Additional academic Neurovascular activities will include at least two (but more if possible) Acute Stroke brain attack experiences including acute Stroke Telemedicine consultations and Neuroendovascular surgical procedures. Student will learn about evidence-based clinical study design and journal article review through Stroke Journal Club and Neurovascular attending interactions.

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Review and discuss relevant, impactful journal articles pertaining to stroke prevention and treatment. (MK7, PC3, MK5)
2. Demonstrate enhanced clinical examination and interviewing skills as well as formulate an accurate and comprehensive differential diagnosis for patients presenting with acute neurologic deficits. (CS1, PC1, PC2, PC6)
3. Demonstrate knowledge and understanding of the vascular risk factors for stroke (both ischemic and hemorrhagic) and develop appropriate stroke prevention management plans for stroke patients (PC3, MK8, PC5, CS1)
4. Demonstrate familiarity and the ability to interpret and implement evidence-based guidelines relevant to Neurovascular disease including diagnosis, causation, utility of diagnostic modalities, and treatment approaches. (MK3, MK5, MK8)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Patient contact with Stroke patients on the Stroke Unit/Vascular Neurology Ward at MUH.
2. One-on-one and/or group/team discussions; one formal lecture per week on stroke topics.
3. Directed reading on general and selected topics in the neurosciences as well as handouts on cerebrovascular diseases.
4. Attendance at neurosciences conferences.
5. Written or oral presentation on selected stroke topic.
6. Independent study on a selected stroke topic.

PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions:
1. Ischemic stroke - small vessel, large vessel, cardioembolic, other defined, cryptogenic
2. Hemorrhagic stroke
3. Transient ischemic attack
4. Encephalopathy
5. Seizures

EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods.
2. Daily verbal feedback from the course director or the assigned faculty co-director.
3. Midpoint feedback from the course director or the assigned faculty co-director.

Will students be expected to participate in call? ☐ YES ☒ NO
Does this rotation accept visiting students? ☒ YES ☐ NO

COURSE DESCRIPTION:
This course exposes students to intern-level responsibilities for patient care and allows the student to perform clinically while under close supervision. The experience occurs on a hospital inpatient service where students will be expected to work-up and evaluate patients with general neurologic diseases, present cases to attending physicians, and participate in all aspects of the patient’s care. Teaching will emphasize clinical and anatomical correlations, as well as other aspects of professionalism in patient care.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Demonstrate understanding of intern-level responsibilities for neurological patient care. (MK1, PC2, CS1, PL1, SL1)
3. Perform a history and general physical and neurological exam. (MK1, PC2, PR1, CS1, PL1)
4. Discuss the contribution of diagnostic testing to the evaluation of neurologic patients. (MK1, PC2, CS1)
5. Critically review and discuss medical neurological literature. (MK1, CS1, PL1)
6. Perform a lumbar puncture under supervision. (MK1, PC2)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Direct observation and patient contact in a clinical setting.
3. Attendance at neurosciences conferences and Grand Rounds as well as other assigned relevant conferences.
4. Oral, written, or small group presentations as assigned by course director or the assigned faculty co-director.
5. Review images at the daily neuro-radiology rounds.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Epilepsy
2. Myasthenia Gravis
3. Multiple Sclerosis
4. Neuromyelitis Optica
5. Myopathies
6. Encephalitis
7. Guillain-Barre Syndrome

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Daily verbal feedback from the course director or the assigned faculty co-director.
3. Midpoint feedback from the course director or the assigned faculty co-director.

Will students be expected to participate in call? ☒ YES ☐ NO
One night of Neurology call per week is required.
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
This externship will provide exposure to all facets of pediatric and adult neurosurgery. Students will rotate through the following services depending on preference and availability: brain, spine, pediatrics, functional and cerebrovascular. Students will have the opportunity to provide outpatient and inpatient preoperative and postoperative care. Through didactic teaching, care of patients in the clinic and in the hospital, and direct observation of neurosurgical procedures, students will become familiar with common neurosurgical disorders and methods of treatment.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Diagnose common neurosurgical disorders and outline their management. (MK5, PC3, CS3)
3. Perform a focused history and neurological exam for common neurosurgical disorders. (MK4, PC1, PR3)
4. Discuss basic neurosurgical approaches to common neurosurgical disorders, as well as the postoperative care, potential complications and long-term management issues. (MK5, PC3, CS1)
5. Identify and discuss the contributions and limitations of diagnostic imaging and neuro-physiological testing in patient assessments. (PL2, SL2)
6. Formulate and discuss non-surgical treatment plans for disorders. (MK3, PC4, PR5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Direct observation and patient contact in outpatient clinics, hospital inpatients, and in the operating room.
3. Attendance at weekly neurosurgery and other assigned conferences.
4. Oral presentation on a neurosurgery topic of their choosing (15 minute platform presentation to include topic review, research presentation or interesting case presentation of value to neurological surgery).
5. One-on-one and/or group team discussions.

**PATIENT ENCOUNTERS:** Students will be expected to evaluate patients with:
1. Neuro trauma: traumatic injury or spinal column/cord injury
2. Degenerative spine disorders/myelopathy
3. Hydrocephalus
4. Brain and spine tumors
5. Vascular lesions of the brain
6. Entrapment neuropathies

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Daily verbal feedback from the course director, faculty and residents.
3. Midpoint feedback from course director or residents.

Will students be expected to participate in call? ☑ YES ☐ NO
One overnight call each week supervised by the upper level neurosurgery resident and attending. Student must also work 2 of the 3 weekends.
**COURSE DESCRIPTION:**
This neurosciences ICU rotation will provide students with a thorough understanding of basic general critical care and neurocritical care concepts. The students are expected to read the critical care handbook that is provided to them. Students are expected to learn the fundamentals of resuscitating patients with severe acute neurologic injuries. Students will become familiar with airway management issues, respiratory management, circulatory support, management of increased intracranial pressure, and management of comorbid conditions seen in patients with acute neurologic injury. Students will be expected to become familiar with all critical care issues and instructed on imagining interpretation as it pertains to ICU patients. Students will observe and potentially perform invasive procedures.

Students will participate in a mandatory orientation day to cover essential critical care subject matter. Participation is expected at all simulation-based procedural skills modules unless absence is excused. Students will be expected to work at least 20 shifts. Make-up dates for unexcused absences will take place the final weekend of the rotation and then at the discretion of the unit director. There is no expectation of night call, but it can be offered by the unit director as an integral learning experience or as make-up for unexcused absences. This rotation is recommended for students interested in neurology, neurosurgery, or medicine-based specialties.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Assess a critically ill patient with neurologic/neurosurgical illness and develop a timely, prioritized, and evidence-based plan for initial stabilization. (PC1, PC3)
2. Apply knowledge to develop evidence-based clinical plans for critically ill patients, including appropriate use of hemodynamic monitoring, application of ventilator modes and settings, and initiation and titration of vasomotor support. (MK4, MK5, PC3, PC6)
3. Manage the most common neurologic emergencies requiring neurocritical care. (MK3, PC3)
4. Understand and discuss the contributions and limitations of diagnostic imaging (MRI, CT) and neurophysiological testing (EEG, MG/NCV) in the assessment of Neuro ICU patients. (PL2, CS1, CS4)
5. Learn and perform a complete neurologic exam and evaluation and management of patient with coma. (MK1, MK2, MK3, MK4, MK5, PC1, PC2)
6. Be able to obtain Informed Consent for diagnostic and therapeutic tests and procedures including verbalization of risks, benefits and alternatives. (PC3, PC7, ICS1, SBP3)
7. Participate in and potentially perform procedures under direct supervision, including placement of arterial lines and central venous catheters while learning proper sterile technique. (MK8, PC7)
8. Demonstrate effective and professional interpersonal and communication skills, and model ethical behavior. (CS1, PR1, PR2)
9. Demonstrate empathy and discuss end of life issues with the patient and family including giving bad news. (PC1, PC3, CS1, CS2, CS3, PR3, PR1, PR2)
10. Perform a basic family meeting to discuss goals of care including discussing and obtaining code status. (PC1, PC4, CS1, CS2, CS3, CS4, PR1, PR2, PR3)
11. Work within a multidisciplinary team on daily rounds as an effective team member including mitigating patient risk and early identification of potential medical errors. (PR1, SL4, IP2, IP3, IP4)
12. Understand quality improvement metrics in the ICU and the team’s role in reducing hospital acquired infections including VAP, CAUTI, CLASBI, etc. (MK7, PR4, PL4, PL5, PL6, SL3, IP4)
13. Concisely summarize a patient’s critical illness and hand off important clinical information efficiently to other team members and consultants. (CS1, CS5, IP1, IP2, IP3, PC6)
14. Demonstrate an understanding of the pharmacology of sedation in the ICU including the prevention and treatment of pain, agitation and delirium (MK2, MK3, MK4, MK5, PC3, PL4)
15. Demonstrate a knowledge of airway management devices including high flow nasal cannula, NIV, BVM, LMA and endotracheal intubation. (MK1, MK4, MK8, PC6, PC7, CS1, CS2, PR3, PL2)
16. Describe the basic aspects of antimicrobial treatment and rational use of anti-infective therapeutic agents, as well as the negative patient complications of antimicrobial overuse. (PC3, PC6, PL3, PL6)
17. Write complete and succinct systems based medical plan with H&Ps and daily progress notes in EPIC. (MK3, MK4, MK5, PC2, PC3, PC6, CS1, CS5, PR1, PR4, PR5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will participate in all aspects of care including initial assessment, diagnosis, management and patient/family communication and decision making for critically ill patients.
2. Students will be expected to present their patients on rounds, and patient-centered clinical and educational topics will be discussed.
3. Students will receive instruction in ventilator management, central line use, and invasive and non-invasive hemodynamic monitoring.
4. Students will learn about pharmacotherapy in the ICU, including vasopressors, antibiotics, and sedatives, and analgesic medications.
5. Students will attend neurosciences conferences and Grand Rounds as well as other assigned relevant conferences.
6. Students may be required to develop an oral, written, or small group presentation as assigned by unit director.
7. Students will attend and participate in didactic teaching session and simulation modules as part of the curriculum.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with conditions from all organ systems, including:
1. Acute cerebrovascular & neuromuscular emergencies requiring critical care
2. Post-operative neurosurgical patients
3. Status epilepticus patients
4. Head and spinal cord trauma
5. Brain tumor patients
6. CNS infections
7. Acute hypoxic/hypercarbic respiratory failure
8. Shock
9. Other neurologic conditions such as pain management, coma, encephalopathy and delirium

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
1. E*Value Clinical Performance Evaluation
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Attending physicians and fellows will provide students with a verbal evaluation at end of rotation.
4. Students will give their attending a mid-point evaluation form for performance assessment.
**Course Director:** Gweneth Lazenby, MD, MSCR  
Email: lazenbgb@musc.edu  

**Course Coordinator:** Andrea Shrader  
Telephone #: 843-792-1241  
Email: shradera@musc.edu

<table>
<thead>
<tr>
<th>DURATION</th>
<th># Students</th>
<th>Day and time</th>
<th>Meeting dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 weeks</td>
<td>1</td>
<td>Wednesdays 12:30-2:30 pm</td>
<td>August–December 2019</td>
</tr>
<tr>
<td>20 weeks</td>
<td>1</td>
<td>Wednesdays 12:30-2:30 pm</td>
<td>December 2019–April 2020</td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☐ YES ☒ NO

**COURSE DESCRIPTION:**
This is a longitudinal outpatient clinical rotation during which students will participate in the delivery of care to a group of pregnant women from the 2nd trimester until delivery. Students will be assigned to meet with a group of adolescent women participating in CenteringPregnancy®, a contemporary model of prenatal care that encourages self-assessment, education, and emotional support during pregnancy. These women are also inpatients at the Florence Crittenton home, an inpatient care facility for high-risk teen mothers. The benefits of Centering include higher patient satisfaction, a reduction in preterm birth and low birth weight, and an increase in breastfeeding postpartum. Patient groups will meet every 2 weeks on the first and third Wednesday of the month. Students will be expected to participate in at least 7 group sessions that last 2 hours and occur at the same time and day of the week. Students will be expected to participate in physical assessments of gravid women and assist with group facilitation.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate communication skills that encourage a relationship of trust and mutual respect between providers and patients. (CS2, PR1, IP3)
2. Demonstrate skills for group facilitation that encourage patient self-learning and awareness. (CS3, PR4, IP2, SL2)
3. Effectively answer frequently asked questions from uncomplicated obstetric patients. (CS1, PC5, PL2, PR4)
4. Demonstrate mastery of routine low-risk obstetric care: physical assessment and anticipatory guidance. (PC1, PD1, SL1)
5. Demonstrate competence in developing appropriate birth plans for uncomplicated obstetric patients. (MK7, IP4, PC6)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Preparing for and participating in at least 7 scheduled group sessions with CenteringPregnancy® participants. There are 13 essential elements that are covered in the scheduled visits. Students will be provided a copy of the CenteringPregnancy® facilitator’s guide to read and use for group preparation.
2. Students will receive instructional feedback from the CenteringPregnancy® team regarding facilitation, communication, and physical assessment skills.
3. Students will be expected to present on a topic selected by the course director and CenteringPregnancy® team members that is pertinent to developing group facilitation skills and encouraging patient self-awareness and education.
4. Students will assist the CenteringPregnancy® team in patient assessments: a focused history, physical exam, and developing an appropriate delivery plan.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. The CenteringPregnancy® group space at MUSC Women’s Health outpatient obstetric clinics.
2. Students may participate in the delivery of uncomplicated births of patients cared for during Centering rotation

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.
3. Students will be evaluated by the CenteringPregnancy® team that they are assigned to work with. This group will include a Certified Nurse Midwife, group facilitator, course director, and OB/GYN resident.

Will students be expected to participate in call? ☒ YES (optional) ☐ NO
Course Director: Matthew Kohler, MD  
Email: kohlermf@musc.edu  
Course Coordinator: Andrea Shrader  
Telephone #: 843-792-1241  
Email: shradera@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td></td>
<td>Block 3</td>
<td></td>
<td>Block 5</td>
<td></td>
<td>Block 7</td>
<td></td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td></td>
<td>Block 4</td>
<td></td>
<td>Block 6</td>
<td></td>
<td>Block 8</td>
<td></td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☒ YES ☐ NO

**COURSE DESCRIPTION:**  
Student will function as a sub intern on the Gynecologic Oncology services in the setting of the inpatient service, outpatient clinic, and operating room. Formal didactic teaching and a weekly tumor board are included. Students must receive approval from the OBGYN Medical Student Education Director to schedule Blocks 1-6.

**LEARNING GOALS & OBJECTIVES:**  
At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Demonstrate an understanding of the essentials of diagnosis and treatment of gynecologic cancers (MK3, PC2)
3. Assess patients and develop treatment plans (PC1, PC3, CS1, MK4, MK5, MK8)
4. Interact with specialists in the field of gynecologic oncology, radiation oncology and hematology/oncology (CS4, PC4, MK5, PR2, IP4, SL2)
5. Demonstrate knowledge of the basic principles of surgery for gynecologic cancer (PC7, PC3)
6. Describe the fundamentals of chemotherapy and radiation therapy for gynecologic cancer (PC3, PD6, PL2, PL5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Didactics
3. Rounds/discussions
4. Clinic
5. Patient load
6. Operating room

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Ovarian cancer, new diagnosis
2. Endometrial cancer, new diagnosis
3. Cervical cancer, new diagnosis
4. Advanced gynecologic malignancy requiring cytotoxic chemotherapy
5. Acute perioperative complications following surgery for gynecologic cancer

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods.
1. E*Value Clinical Performance Evaluation A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☒ YES ☐ NO
Weekend rounds (per your ONC Resident Team instructions)
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
The rotation offers students an opportunity for enhanced experience in the management of high-risk obstetrical patients. Students will work closely with the faculty and fellows from the Division of Maternal-Fetal Medicine in the Department of Obstetrics and Gynecology. Clinically, the primary focus is the care of antepartum inpatients and participation in High Risk Obstetrics clinic. Students will also develop skills in the interpretation of NSTs and ultrasounds. Student will be assigned 2 weeks of inpatient on the antepartum unit and 2 weeks of high-risk obstetrics clinic. Students must receive approval from the OBGYN Medical Student Education Director to schedule Blocks 1-6.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Demonstrate understanding of the management of high-risk obstetrical patients including those with obstetric complications as well as medical complications of pregnancy. (MK1, MK4, IP2)
3. Perform a thorough obstetrical history and physical examination. (MK4, PC1, PC2, CS2, PR1, PD6)
4. Interact with specialists in the field of high-risk obstetrics and genetics in order to recognize the breadth and depth of the specialty. (CS1, CS2, CS4, PC1, PC5, IP1, PD1, SL2)
5. Practice basic clinical skills during obstetrical procedures: Ultrasound, Cervical exam, Fundal assessment. (MK1, MK3, PC1, PD1)
6. Research a clinical problem and educate peers by preparing a lecture based on a case on the Antepartum Service directed at the residents and 3rd-year medical students and residents. (PL3, CS4, MK1, MK3, PR4, PD2)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Didactics: Grand Rounds, M&M, weekly resident didactic lecture sessions, weekly MFM fellow’s conferences
3. Daily Rounds/Discussions
4. Clinic
5. Patient load
6. Preparation of a lecture based on a case on the Antepartum Service directed at the residents and 3rd year students on the service

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Preterm labor
2. HTN/Preeclampsia
3. Multiple gestations
4. Diabetes in pregnancy
5. Term labor

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods.
1. E*Value Clinical Performance Evaluation
2. Evaluation of the student lecture.
3. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☑ YES ☐ NO
Students will take one call per week.
COURSE DESCRIPTION:
The rotation will introduce students to the discipline of Reproductive Infectious Diseases (RID). The student will work with the RID faculty in both outpatient and inpatient settings. This will include attending specialty clinics at MUSC Women’s Health for HIV and hepatitis during pregnancy. Under the guidance of the RID faculty, RID elective students will see women with postpartum and postoperative infections, inpatient RID consultations, and patients admitted with reproductive infections, e.g. PID, complications of HIV in pregnancy. Students must receive approval from the OBGYN Medical Student Education Director to schedule Blocks 1-6.

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate an understanding of reproductive infections (RI) in women (MK5, MK7)
2. Perform point of care testing in the diagnosis of RI. (MK8, PC3, CS2)
3. Appropriately diagnose and treat RI (MK5, PC2, PC3, CS1, IP2)
4. Demonstrate an understanding of vulvovaginal diseases and their diagnosis and treatment (MK4, MK8, PC2, PC3)
5. Demonstrate knowledge in perinatal and gynecologic care specific to women living with HIV (MK4, MK8, PC2, PC3, PD5)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Didactics – The following conference and didactics will be attended weekly: OBGYN and ID Grand Rounds, OBGYN M&M, Adult ID fellows lecture sessions, and Adult ID and MFM teaching conferences.
2. Patient contact in the following specialty clinics: GYN ID, HIV OB clinic, and Pediatric HIV clinic.
3. Diagnostics and lab experience – point of care testing e.g. microscopy of the vaginal secretions, nucleic acid amplification for common STIs, and participation in microbiology lab exercises as directed by Dr. Lisa Steed

PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions
1. HIV in pregnancy
2. Patients with STD symptoms or PID
3. Patients with vaginitis
4. Vulvar dystrophies
5. Abnormal cervical cytology

EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods.
1. E*Value Clinical Performance Evaluation
2. Students are expected to prepare a 30-minute presentation with immediate feedback provided from the faculty and residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☑ YES ☐ NO
Does this rotation accept visiting students? □ YES □ NO

COURSE DESCRIPTION: This externship will expose students to all aspects of inpatient services of Labor & Delivery. Students will work closely with the ObGyn Specialists & Maternal Fetal Medicine faculty and residents in the Department of Obstetrics and Gynecology. This student will have the opportunity to observe and participate in the inpatient labor & delivery unit, assist with operating room cases, and triage patients. Students will also develop skills in the interpretation of NSTs and will perform basic ultrasounds. They will be involved in vaginal and cesarean deliveries. Students may also participate in Obstetrics or Gynecologic/Gynecologic Oncology consults and other emergent Gynecology cases. Students must receive approval from the OBGYN Medical Student Education Director to schedule Blocks 2-6.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Assess laboring patients and demonstrate an understanding of normal & abnormal labor. (MK1, MK4, IP2)
2. Demonstrate communication skills that encourage a relationship of trust and mutual respect between providers and patients. (CS2, PR1, IP3)
3. Perform a thorough obstetrical history and physical examination (MK4, PC1, PC2, CS2, PR1, PD6)
4. Diagnose and understand management common obstetrical complications including but not limited to: miscarriage, preterm labor, hypertensive disorders of pregnancy, postpartum hemorrhage. (MK5, MK8, PC2, CS3)
5. Practice and assist with basic clinical skills during obstetrical procedures: Vaginal delivery, Cesarean section, ultrasound, cervical exam, interpret a reactive non-stress test (MK1, MK3, PC1, PD1)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities
2. Patient load
3. Board Check out/Discussions
4. Triage exam rooms (OB ED)

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions
1. Active Labor
2. SROM (spontaneous rupture of membranes)
3. Preterm labor
4. PPROM (preterm premature rupture of membranes)
5. Hypertensive disorders of Pregnancy

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods.
1. E*Value Clinical Performance Evaluation
2. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? □ YES □ NO
The typical schedule for this externship is 5:30pm-7:30am Sunday night through Thursday night
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
This elective offers students an opportunity to enhance their experience in the management of gynecological patients. This student will be responsible for rounding on the inpatient benign gynecology service, attending operating room cases, and participating in select subspecialty outpatient experiences (e.g., urogynecology, family planning). Students must receive approval from the OBGYN Medical Student Education Director to schedule Blocks 1–6.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate an understanding of primary and preventive care for women. (MK1, MK7)
2. Perform a thorough gynecologic history and physical examination. (PC1, CS1)
3. Assess patients and develop treatment plans. (PC3, PR2)
4. Interact with specialists and generalists in the field of obstetrics and gynecology in order to recognize the breadth and depth of the specialty. (CS4, PR1, IP3)
5. Practice surgical skills. (PC7, PD1)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Didactics - Grand Rounds, M&M, weekly resident didactic lecture sessions.
2. Inpatient rounds/discussions.
3. Ambulatory patient care.
4. Operating room.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Abnormal uterine bleeding
2. Urinary incontinence
3. Undesired fertility
4. Menopausal symptoms
5. Gynecologic infections
6. Need for contraception
7. Unintended or abnormal pregnancy

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☑ YES ☐ NO
Weekend rounds – no overnight call.
COURSE DESCRIPTION:
This elective will introduce students to clinical ophthalmology. Students will participate in didactic sessions including Grand Rounds, Journal Clubs, and Friday afternoon lectures. Students will work one-on-one with ophthalmology residents and attendings examining patients and observing surgery. A text will be provided as a checklist of practical goals to be achieved over the course of the rotation.

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate understanding of the role and scope of ophthalmology within medicine. (MK4, PR1)
2. Perform an ophthalmology exam with a standard screening protocol. (CS1, MK3)
3. Identify the presentation of acute and common ophthalmology complaints. (CS1, PC1)
4. Triage acute and common complaints and discuss when to consult the ophthalmology service. (IP1, PC2)
5. Identify common ophthalmology surgeries, such as cataract, strabismus, corneal transplant, retinal detachment, glaucoma, and oculoplastic surgeries. (PC3, MK8)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Observation/participation in different clinics with mentorship by a resident or attending physician.
2. Observation of surgery with mentorship by a resident or attending physician.
3. Observation of a consultation on the wards or emergency department with mentorship by a resident or attending physician.
4. Attendance at department grand rounds.
5. Completion of required reading: Basic Ophthalmology for Medical Students and Primary Care Residents, 8th edition.

PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions:
1. Cataracts
2. Diabetes
3. Neuro-ophthalmology
4. Glaucoma
5. Strabismus
6. “Red painful eye”

EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods:
2. Direct observation of clinical and patient care skills by the attending physician and residents. Learners will receive verbal feedback on their clinical performances following clinics and surgeries.
3. Completion of a 40-item multiple choice question quiz at the end of the rotation. The quiz will be graded and reviewed with the first-year resident in the general ophthalmology clinic.
4. Attendance as documented in a daily log of clinical/surgery/patients evaluated by course director.
5. Adequate screening of 1 patient in general clinic per protocol and evaluated by general ophthalmology team.
6. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☑ YES ☐ NO
Does this rotation accept visiting students?  ☑ YES ☐ NO

COURSE DESCRIPTION:
Student will function as a sub-intern while on this rotation. This course includes daily involvement with the orthopaedic service, including office-based clinics as well as outpatient and inpatient surgery. Students will also be involved in pre-operative and post-surgical patient care. Students will participate in the orthopaedic surgery clinics, the operating theater, as well as group and one-on-one didactic sessions. Students are expected to participate in a limited amount of “call” while shadowing the junior orthopaedic surgery residents. Students are granted plenty of opportunities for hands-on experience. Students will present one patient encounter or clinical topic per week to an attending. This course is geared to students interested in orthopaedic surgery as a career.

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Elaborate, understand, and discuss the work-up and treatment of many MSK injuries. (MK3, MK4, MK8, CS1)
2. Present patients on rounds to upper-level residents and attendings. (PC1, PC3, MK8, CS1, PR1, PR3)
3. Give weekly case presentations to faculty members regarding an evaluation of an injury/condition, evaluation, work-up, and treatment options. (PL2, PL3, CS1, SL2)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. One-on-one teaching.
2. Small group didactic sessions and case presentations.
3. Attendance at all resident educational conferences, including a 3-hour weekly didactic session.
4. Patient care morning and evening rounds.
5. Participate in the pre-operative, intra-operative and post-operative care of orthopaedic surgery patients.

PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions:
1. Long bone fractures
2. Musculoskeletal tumors
3. Multi Trauma patients
4. Musculoskeletal disorders such as O.A., R.A., septic arthritis
5. Low back pain, compartment syndrome
6. Upper extremity reconstruction and compressive neuropathies

EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods:
2. Presentations to attendings and residents.
3. One-on-one discussions.
5. Daily interactions with faculty and residents in small groups and one-on-one sessions.
6. Midpoint feedback will be done via one-on-one discussions between faculty and student.

Will students be expected to participate in call?  ☑ YES ☐
One week night until 10:00 pm and one weekend day (Fri, Sat, or Sun) per week.
OSURG 864: Office-Based Orthopaedics

**Course Director:** Harris Slone, MD  
Email: sloneh@musc.edu  
**Course Coordinator:** Cassaundra Tucker  
Telephone #: 843-792-0245  
Email: tuckerc@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>1</td>
<td>Block 3</td>
<td>1</td>
<td>Block 5</td>
<td>1</td>
<td>Block 7</td>
<td>2</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>1</td>
<td>Block 4</td>
<td>1</td>
<td>Block 6</td>
<td>1</td>
<td>Block 8</td>
<td>2</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☐ YES ☒ NO

**COURSE DESCRIPTION:**
This course offers the opportunity for students to evaluate and manage disorders of the musculoskeletal system. Students spend four weeks rotating through the outpatient orthopaedic subspecialty services. These services may include sports medicine, pediatric orthopaedics, adult reconstruction, hand, oncology foot and ankle, and spine. This rotation is for students interested in the care of the musculoskeletal system but not interested in a career in orthopaedic surgery. The students will also rotate at the South Carolina Sports Medicine and Orthopaedic Center, which is a local private group.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Perform a subspecialty specific and problem focused history and examination as indicated, and formulate a differential diagnosis and provisional treatment plan. (PC1, PC2, PC3, CS1, CS2, IP3, IP4, PL4, PD6)
2. Demonstrate an understanding of how special tests and/or referrals aid in establishing a diagnosis. (MK8, PC3, PC4, PL2, IP1, IP4)
3. Discuss subspecialty specific issues and coordination of care in the peri-operative period. (PL3, SL2, IP2, IP3, IP4)
4. Present patients to colleagues. (PC1, CS1)
5. Articulate the need to refer MSK conditions to a specialist. (CS1, IP1, IP4)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. One formal presentation per week.
2. Daily work rounds/discussions with attendings in clinic.
4. Specific reading assignments.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Upper extremity compressive neuropathies
2. Sports related injuries
3. MSK complaints of the foot and ankle
4. Degenerative Joint Disease / Osteoarthritis
5. Shoulder and rotator pathology

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Case presentations.
3. Informal presentations.
4. Midpoint evaluations will be accomplished via small group and one-on-one sessions with the course director.

Will students be expected to participate in call? ☐ YES ☒ NO
Does this rotation accept visiting students? ☐ YES ☒ NO

**COURSE DESCRIPTION:**
This course is an introduction to the evaluation and management of diseases of the ear, nose, throat, and head and neck. Students attend a clinically oriented lecture series, participate in the outpatient subspecialty clinics, and have closely supervised inpatient responsibility with all the sub-specialties in otorhinolaryngology, as well as observe surgical procedures. Students participate in the clinical management of a wide assortment of the most common problems seen in the outpatient setting in otorhinolaryngology with specific time devoted to the medical and surgical management of otitis media, chronic sinusitis, adenotonsillar hypertrophy, hearing loss, and common neck masses in adults and children. Chief Residents will organize students into specific teams to maximize the educational experience offered.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate proficiency with the ear, nose, throat, and head and neck exam. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)
2. Describe the role of office-based endoscopy for diagnosis and management of ear, nose, and throat problems. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)
3. Demonstrate the ability to treat the most common ENT problems effectively. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)
4. Discuss when to refer patients effectively. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Regularly scheduled didactic otolaryngology lectures.
2. Rounds and discussions.
3. Patient encounters.
4. Attendance at multidisciplinary tumor board and periodic departmental hosted conferences.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Thyroid mass in an adult
2. Adenotonsillar hypertrophy in a child
3. Chronic otitis media in a child
4. Chronic sinusitis in an adult
5. Hoarseness/voice problem in an adult
6. Hearing loss in an adult

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct feedback after outpatient clinic, inpatient rounds and management, and operating room experiences.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☐ YES ☒ NO
Does this rotation accept visiting students? ☒ YES ☐ NO

**COURSE DESCRIPTION:**
This acting internship is limited to students applying for residency in ORL and provides a comprehensive overview of otolaryngology with in-depth experience in medical and surgical management of head and neck cancer, rhinology, otology, laryngology, and pediatric otolaryngology. MUSC students applying to ORL residency must contact the course coordinator PRIOR to registering and acceptance is on a first-come basis. MUSC students seeking ORL residency are strongly encouraged to rotate during Blocks 1 or 2. Students from other institutions must contact the course coordinator for details of the application requirements. There are typically 10-20 inpatients at a time. The student is responsible for 2-3 patients – rounding, presenting, and writing daily progress notes. The majority of our faculty will be unavailable from September 15-18, 2019 in order to attend the annual AAOHNS meeting.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Perform the head and neck exam. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)
3. Describe the spectrum of ENT surgery and medical management. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)
4. Formulate a plan to manage the postoperative inpatient. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Regularly scheduled didactic otolaryngology lectures.
3. Rounds/discussions and attendance at multidisciplinary tumor board.
4. Patient contact.
5. Patient load – same as PGY 1 or 2.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Oral Cancer
2. Thyroid Nodule
3. Salivary Gland Neoplasm
4. Skin Cancer
5. Neck Mass

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct feedback after outpatient clinic, inpatient rounds and management, and operating room experiences.
3. Oral presentation: 15-minute presentation with review of the literature based on a research project or patient they are following.
4. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☒ YES ☐ NO
Will follow the call schedule of the PGY 2 on each team as they rotate through. Call will be approximately 2-3 times per week until 10:00 pm.
Does this rotation accept visiting students? ☐ YES ☒ NO

**COURSE DESCRIPTION:**
This course is an introduction to the evaluation and management of diseases of the head and neck. Students attend a clinically oriented lecture series, participate in the outpatient clinics, and have closely supervised inpatient responsibility.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate mastery of the head and neck exam. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)
2. Discuss the spectrum of ENT surgery and medical management. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)
3. Manage the postoperative inpatient. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Regularly scheduled didactic otolaryngology lectures.
2. Rounds/discussions and attendance at multidisciplinary tumor board.
3. Patient contact.
4. Patient load is the same as PGY 1 or 2 resident.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Oral Cancer
2. Thyroid Nodule
3. Salivary Gland Neoplasm
4. Skin Cancer
5. Neck Mass

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct feedback after outpatient clinic, inpatient rounds and management, and operating room experiences.
3. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☐ YES ☒ NO
Does this rotation accept visiting students? ☑ YES ☐ NO

COURSE DESCRIPTION:
This course provides students with exposure to the multidisciplinary evaluation and management of tumors of the head and neck. The clinical experience will include patients with HPV-related oropharyngeal cancer, tobacco-related tongue and laryngeal cancer, tumors of the thyroid and salivary glands, skin cancer of the head and neck, and the wide variety of other tumors occurring in the head and neck region. Many of these tumors have symptoms that mimic much more common problems such as lymphadenitis, tonsillitis, pharyngitis, Bell’s palsy, and clinicians should be aware of the subtle differences between a patient with a common primary care problem treated with antibiotics versus a patient who may harbor an occult cancer. Students will function as an acting intern and be responsible for learning the early diagnosis, evaluation, and multidisciplinary treatment and rehabilitation for these diseases.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Complete a comprehensive head and neck examination. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)
3. Integrate and manage the diagnosis, staging, and management of patients with head and neck tumors into the clinical practice. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)
4. Illustrate the neck lymph node levels and staging of head and neck cancers. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)
5. Summarize the NCCN Guidelines for the diagnosis and treatment of cancers of the thyroid, skin, parotid, tongue, pharynx, and larynx. (MK1, MK4, PC1, PC2, PC3, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PD1, PL1, PL2, SL2, IP3)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Regularly scheduled didactic otolaryngology lectures, rounds, discussions and attendance at multidisciplinary tumor board
3. Patient contact – the patient load will be the same as a PGY 1 or 2 resident.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Oral Cancer / Oropharyngeal Cancer
2. Thyroid Nodule
3. Salivary Gland Neoplasm
4. Neck Mass

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct feedback after the following clinical experiences: operating room, outpatient clinics, inpatient rounds and management.
3. Attendance at Tumor Board and Lectures.
4. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☑ YES ☐ NO
Students will follow the call schedule of the PGY 1 or PGY2. Call will be approximately 2-3 times per week until 10:00 pm.
 Does this rotation accept visiting students?  ☑ YES ☐ NO

**COURSE DESCRIPTION:**
This course offers insight into forensic pathology and medicolegal death investigation as well as the workup and certification of in-hospital deaths. The student will be involved in the performance of autopsies, including the performance of external examinations, disposition of fluid/tissue samples for ancillary studies, and basic dissection of the internal organs. This course offers an excellent opportunity for review of normal anatomy and exposes the student to common pathologies and traumas.
Contact Dr. Angelina Phillips via e-mail one week prior to the start of the rotation.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Identify factors that qualify a death for a forensic autopsy. (MK3, SL1)
2. Work on an interdisciplinary team and communicate effectively (CS1, PR1, IP1)
3. Explain the complete details of how an autopsy is performed. (MK1, MK3, MK4, CS1)
4. Perform uncomplicated autopsy organ dissection. (MK1, MK3, MK4, PC7)
5. Properly complete the cause and manner of death section on a death certificate. (MK4, CS5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Attendance and participation in weekly autopsy conferences.
2. Rotation specific didactics.
3. Pre-case and post-case discussions with attending pathologist, residents, and/or forensic fellow.
4. Active participation in autopsy casework.
5. Student presentation of a 15-minute autopsy/forensic topic at the end of the rotation.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Natural diseases including hypertension, atherosclerosis, pneumonia, and/or cancer
2. Various forms of trauma including motor vehicle accidents, burns, gunshot wounds, and/or sharp force injuries
3. Illicit and prescription drug overdoses

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Attending physicians, forensic fellow, and pathology residents will provide on-site verbal evaluation/feedback about daily service work.
3. Attending physicians, forensic fellow, and pathology residents will provide on-site verbal feedback of the 15-minute student presentation at the end of the rotation.
4. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call?  ☑ YES ☐ NO
One weekend day during rotation.
**Course Director:** Jack Yang, MD  
Email: yanja@musc.edu

**Course Coordinator:** Linda McCarson  
Telephone #: 843-792-2711  
Email: mccarsli@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td></td>
<td>Block 3</td>
<td></td>
<td>Block 5</td>
<td></td>
<td>Block 7</td>
<td></td>
</tr>
<tr>
<td>Block 1A</td>
<td>1</td>
<td>Block 3A</td>
<td>1</td>
<td>Block 5A</td>
<td>1</td>
<td>Block 7A</td>
<td>1</td>
</tr>
<tr>
<td>Block 1B</td>
<td>1</td>
<td>Block 3B</td>
<td>1</td>
<td>Block 5B</td>
<td>1</td>
<td>Block 7B</td>
<td>1</td>
</tr>
<tr>
<td>Block 2</td>
<td></td>
<td>Block 4</td>
<td></td>
<td>Block 6</td>
<td></td>
<td>Block 8</td>
<td></td>
</tr>
<tr>
<td>Block 2A</td>
<td>1</td>
<td>Block 4A</td>
<td>1</td>
<td>Block 6A</td>
<td>1</td>
<td>Block 8A</td>
<td>1</td>
</tr>
<tr>
<td>Block 2B</td>
<td>1</td>
<td>Block 4B</td>
<td>1</td>
<td>Block 6B</td>
<td>1</td>
<td>Block 8B</td>
<td>1</td>
</tr>
<tr>
<td>Block 9</td>
<td></td>
<td>Block 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Does this rotation accept visiting students?**  ☐ YES  ☒ NO

**COURSE DESCRIPTION:**  
This course will introduce students to Cytopathology. Students will learn basic preparatory techniques and be involved in evaluation of gynecologic and non-gynecologic preparations. Students will have the opportunity to participate in the entire cytologic diagnostic process, including taking patients’ medical history, examination of targeted lesions (physically and radiologically), specimen preparation, and final cytologic diagnosis. The course includes didactic lectures and participation of daily cytology sign-out sessions. Students will also have the opportunity to attend pathology resident seminars and cytologic-histological correlation conference. Course materials/reference textbooks include *The Art & Science of Cytopathology*, *The Bethesda System for Reporting Cervical Cytology*, and *Cytology-Diagnostic Principles and Clinical Correlates*. (All three books are available online in MUSC library website.) Students will meet with Dr. Yang in CH303F at 8:45 am on the first day of rotation.  **NOTE:** Students pursuing pathology as a career may request to take the course for four weeks.

**LEARNING GOALS & OBJECTIVES:**  
At the completion of this clinical rotation students should be able to do the following:
1. Describe the entire diagnostic process in cytopathology (MK1, MK3, MK4, PC1, PC2, CS1, CS3, PR1, PR3, PL1, SL1)
2. Demonstrate effective use of medical vocabulary and written language to communicate with clinicians/patients. (MK1, PR3, CS1, CS3)
3. Identify the elements of the pathologic basis of diseases. (MK1, MK3, MK4, MK5, PC1, PL1, SL1)
4. Correlate clinical symptoms with underlying pathophysiologic mechanisms. (MK1, MK5, PL1, SL1)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:**  
Students on this rotation will be expected to achieve the educational goals and objectives through the following methodologies and activities:
1. Participation in Cytopathology sign-out (pap smears and fluid analysis) and rapid on-site evaluation of fine needle aspiration specimens.
2. Attend histo/cyto correlation conference and general pathology lectures
3. Identify topic of interest and give a short cytopathology-related oral presentation (applies to students enrolled in 4-week elective).

**PATIENT ENCOUNTERS:**  
Students will be expected to work-up patients with these specified conditions:
1. Thyroid nodule
2. Mediastinal lymphadenopathy
3. Hematuria
4. Pap smear

**EVALUATION / FEEDBACK METHODS:**  
Students will be evaluated using the following methods:
2. Direct observation by faculty and residents during patient care and review of clinical/didactic activities.
3. Direct observation and Question/Answer sessions.
4. Direct observation by residents and attending of student day-to-day activities on the team.
5. Short quiz on a topic related to Cytopathology.
6. A mid-point evaluation form will be completed halfway through any 4-week rotation in order for the student to be assessed on their performance.

**Will students be expected to participate in call?**  ☐ YES  ☒ NO
PATH 862: Surgical Pathology

Course Director: Cindy Welsh, MD
Email: welshct@musc.edu

Course Coordinator: Linda McCarson
Telephone #: 843-792-2711
Email: mccarsli@musc.edu

Does this rotation accept visiting students?  ☑ YES ☐ NO

COURSE DESCRIPTION:
This course will introduce students to surgical pathology. Students will be exposed to gross examination of surgical specimens, frozen section examination, and microscopic pathology. The course will have an emphasis in surgical pathology on topics that are of interest to the student in their ultimate career path. The student will be expected to choose a clinical case that occurs during their four-week rotation to present as a short (5-min) PowerPoint presentation at the last Friday morning resident’s conference or in another conference time (arranged and approved by the course director) prior to leaving the elective. The student will also be expected to attend the morning lectures and conferences that occur Monday-Friday at 8:00 am. Time off from the rotation for interviews, etc., requires negotiation beforehand with the course director and follows COM policy.

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Describe the scope of pathology and what surgical pathologists do. (MK5)
2. Discuss the indications for and the methodology of intraoperative consultation (frozen section). (MK5, IP3, PC2)
3. Describe the dissection techniques for common surgical specimens. (MK3, PC7)
4. Identify the gross and microscopic features of common neoplasms. (MK3, PC2)
5. Present a patient case with an emphasis on pathology and review of the pertinent literature. (MK8, CS4, PL3)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Attendance of general pathology lectures.
2. Attendance at least one tumor board during this course to see the interaction of pathologists and clinicians.
3. Participation in surgical pathology, including gross examination of specimens, evaluation of frozen sections and microscopic evaluation of surgical specimens.
4. Choose a topic of interest and give a 5-minute oral presentation with review of the pertinent literature.
5. Present a patient case selected during the four week rotation with an emphasis on pathology.

PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions:
1. Frozen section intraoperative consultations
2. Major oncology resections with follow through to appropriate tumor board discussions
3. Surgical biopsy specimens

EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods:
2. Evaluation of medical knowledge by attending physician on surgical pathology sign-out.
3. Observation and evaluation of skills in the frozen section.
4. Observation of interpersonal communicative skills and professionalism.
5. Quality of oral presentation by selective director.

Will students be expected to participate in call?  ☑ YES ☐ NO
**Course Director:** John Metcalf, MD  
Email: metcalfj@musc.edu  

**Course Coordinator:** Linda McCarson  
Telephone #: 843-792-2711  
Email: mccarsi@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>0</td>
<td>Block 3</td>
<td>1</td>
<td>Block 5</td>
<td>1</td>
<td>Block 7</td>
<td>0</td>
<td>Block 9</td>
<td>1</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
<td>Block 9A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
<td>Block 9B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>1</td>
<td>Block 4</td>
<td>1</td>
<td>Block 6</td>
<td>1</td>
<td>Block 8</td>
<td>1</td>
<td>Block 10</td>
<td>1</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
<td>Block 10A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
<td>Block 10B</td>
<td></td>
</tr>
</tbody>
</table>

**Does this rotation accept visiting students?** ☑ YES ☐ NO

**COURSE DESCRIPTION:**
The student will participate in the daily readouts of skin pathology specimens and in self-study of teaching sets. The student will also participate in the daily teaching conferences in the Department of Dermatology including the Clinicopathologic Conference and the Dermatopathology Conference.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Communicate the terminology of dermatopathology. (CS5, PL3)
2. Identify the basic pathologic changes that occur in the skin. (MK1, PL3)
3. Analyze skin specimens. (MK4, PL1)
4. Identify the pathologic features of common inflammatory diseases and neoplasms of the skin. (MK4, PL3)
5. Integrate clinical and pathological features of skin diseases. (PC2, PR1, MK3, CS1, PL3)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Lectures
2. Rounds/discussions
3. Lab
4. Conferences

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Basal Cell Carcinoma
2. Squamous Cell Carcinoma
3. Actinic Keratosis
4. Seborrheic Keratosis
5. Melanocytic nevi
6. Psoriasis
7. Eczematous Dermatitis
8. Lichenoid Dermatitis

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Medical knowledge, interpersonal communication skills at Dermatopathology sign-out.
3. Medical knowledge, professionalism in Dermatopathology.

**Will students be expected to participate in call?** ☐ YES ☑ NO
Does this rotation accept visiting students?  ☑ YES ☐ NO

COURSE DESCRIPTION:
The student will rotate with a senior pathologist on various rotations including surgical pathology, cytopathology, autopsy pathology, and clinical pathology. This course is designed for students who are considering a career in pathology. Please contact Ms. Lissa Spigner via email one week prior to start of rotation (lspigner@coastalpath.com) to make arrangements for the first day of rotation.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Describe the breadth of pathology as a specialty. (MK2, MK3, MK4, MK5, MK8)
2. Explain a pathologist's role as a consultant in clinical medicine. (MK4, MK5, PC1, PC2, CS1)
3. Discuss basic pathology procedures. (PC7)
4. Describe the role of laboratory direction. (MK4, MK5, PC1, PC2, CS1, PR1, PR2)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Rotate on non-GYN cytopathology service including fine needle aspiration biopsy with “wet reads.”
2. Rotate on surgical pathology services, observe frozen sections, and understand the intra-operative role of pathologists.
3. Observe autopsies.
4. Rotate on clinical pathology service, including laboratory planning meetings, blood bank consultation, and clinical chemistry test interpretation.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Accompany pathologists in the performance of bone marrow procedures and fine needle aspiration biopsy procedures
2. Evaluate surgical biopsy and resection specimens from patients with a wide variety of malignant and inflammatory disease processes

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Attending physicians will provide direct observation and verbal evaluation/feedback.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call?  ☑ YES ☐ NO
Does this rotation accept visiting students? □ YES ☒ NO

**COURSE DESCRIPTION:**
In this course, students will participate in the laboratory evaluation and diagnosis of malignant and nonmalignant hematologic disorders. Students will be involved in the morphologic, histochemical and immunohistochemical, immunophenotypic, cytogenetic, and molecular analyses of peripheral blood smear, bone marrow aspirate and biopsies, and lymph node biopsies. Correlation of these data with the clinical history and physical findings will be emphasized.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Describe how to use a multidisciplinary, integrated approach to the diagnosis of hematologic disorders utilizing morphology, flow cytometry, classical cytogenetics and molecular analysis. (MK5, PC2, PR1, CS3, PL3, SL2)
2. Discuss how to diagnose acute and chronic leukemias and determine cell lineage, to distinguish myeloproliferative and myelodysplastic disorders from reactive processes and be familiar with the protean manifestations of plasma cell dyscrasias. (MK5, PC2, PR1, CS3, PL3, SL2)
3. Distinguish myeloproliferative/myelodysplastic disorders from reactive processes. (MK5, PC2, PR1, CS3, PL3, SL2)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Lectures
2. Rounds/discussions
3. Lab

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. N/A

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Students will be quizzed regarding concepts and principles in response to routine questions about pathologic diagnosis of case slide being reviewed.
3. Students will be evaluated on their ability to document patient information through synthesis of clinical data and additional laboratory tests.
4. Students will be evaluated on their ability to present clear, concise and well organized case presentations.
5. Students will be evaluated for their skill, initiative and capability as a member of the medical team on service in their diligence in completing assignments in a reliable and conscientious manner.
6. Students will be evaluated in their ability to investigate and evaluate their diagnostic and consultative practice, appraise and assimilate scientific evidence and improve their patient care practices.
7. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? □ YES ☒ NO
Does this rotation accept visiting students?  □ YES  ☒ NO

COURSE DESCRIPTION:
Student will work in the acute setting of the Pediatric ED and attend morning reports/conferences/simulation center activities. In the context of clinical care, students will gain exposure to and experience in peripheral IV placement, splinting of fractured extremities, placement of sutures, lumbar puncture, and oxygen delivery. This course is intended for students entering the fields of Pediatrics, Emergency Medicine, or Family Medicine and requires pre-approval from the course director for enrollment in Blocks 2-8 if the student is NOT from one of these targeted disciplines.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Identify a sick child and initiate diagnostics and therapy. (MK3, MK4, MK5, MK8, PC1, PC2, PC3, PC6, CS1, CS2, CS3, CS5, PR1, PR2, PR5, PL2, PL3)
2. Manage minor trauma and demonstrate an understanding of major trauma in the pediatric patient. (MK1, MK3, MK7, MK8, IP1, IP2, IP3, IP4)
3. Collect focused, developmentally appropriate patient histories and perform focused, developmentally appropriate physical exams. (MK, PC1, PC2, PC3, CS1, CS2, CS3, CS5, PR3)
4. Identify patients needing immediate attention by the supervising physician. (MK1, MK3, PC2, PC3, PC6, PL2, PL3, PL4)
5. Determine which patients can be discharged home and which need admission (and to which unit). (MK3, MK5, PC3, PC4, PC5, PC6, PL2, PL4, PD6)
6. Describe indications and familiarity with procedures commonly performed in Pediatric ED settings [splint placement, lumbar puncture, placement of sutures, peripheral intravenous catheter placement, procedural sedation] (MK5, PC7, PR5, PL2)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Attendance at 2 lectures/conferences per week
2. Patient contact
3. 10-minute presentation at Pediatric Emergency Fellows conference

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Trauma
2. Infection
3. Dehydration/shock
4. Chronic diseases with acute issues

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by attending physicians and residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call?  □ YES  ☒ NO
Student will work a total of 13 shifts. One shift will be a procedure/nursing (8-hour) shift in which the student will not have responsibility for seeing patients and writing notes but will instead spend time gaining additional exposure to and experience in triage assessment, routine procedures such as IV placement, bladder catheterization, bedside/point-of-care ultrasound, commonly performed urgent/emergent radiology procedures, and respiratory therapy (nebulization administration, MDI instruction, O2 delivery).
Does this rotation accept visiting students?  □ YES  □ NO

**COURSE DESCRIPTION:**
During this Elective, students will work directly with specialists in pediatric cardiology and cardiothoracic surgery and rotate through all areas of pediatric cardiology including:

- one week in the cardiology clinic for outpatient pediatric cardiac consultations for new patients and the outpatient established patient evaluation,
- one week in the inpatient ICU,
- one week in the step-down floor for evaluation of the pre-operative and post-operative inpatient, and
- one week in observation of trans-catheter corrective procedures OR a one week rotation as a member of the pediatric cardiothoracic surgical team, depending on student preference.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:

1. Demonstrate understanding of normal cardiac anatomy and physiology and describe the various common congenital cardiac alterations in anatomy and physiology. Acknowledge limitations in knowledge and correct those deficits. (MK4, MK1, MK8, PD2)
2. Demonstrate understanding of the diverse cardiac care team providing patient care in the outpatient and inpatient setting. Demonstrate ownership of the patient and responsibly provide continuity of care with each patient and the care team. (PC1, PC5, CS1, CS5, PR1, IP4)
3. Demonstrate understanding of the barriers and socio-economic challenges for the complex congenital pediatric and adult patient, their families, and of the necessary support structures integral to patient care. (PR3, PR1, SL4)
4. Assist in cardiac procedures with sterile preparation and management of a sterile environment in a cardiac procedural suite. Observe cardiac surgical procedures for an understanding of the complexity of congenital cardiac surgery. (PC6, MK5, PC7)

**INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:

1. Participation as an integral member of the cardiac inpatient team.
2. Participation in the critical evaluation and assessment of the pediatric cardiac consult.
3. Evaluation and assessment of the preoperative pediatric cardiac patient, surgical procedures, and follow-up of the patient in the early post-operative period focusing on the altered cardiac physiology.
4. Attendance at cardiology clinics to improve pediatric cardiac exam skills and outpatient evaluation techniques.
5. Participation in specialized therapeutic modalities that aide in diagnosis and management of the complex pediatric cardiac patient. Students will observe echocardiography and cardiac catheterization available for delineating complex anatomy and interventional techniques for therapy.
6. Attend weekly care conferences: surgical and cath conferences – to understand the integration of medical and surgical care teams in the care of each congenital patient, and attend educational conferences for didactic teaching of congenital heart disease.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:

1. Patient with a congenital cardiac common diagnosis (i.e. VSD, ASD, and PDA, AV Canal defect, TOF, etc.)
2. Complex cardiac patient, including patients with Single ventricular physiology in varying stages of repair
3. Critically ill premature or full-term neonate patient with secondary pulmonary hypertension
4. Acquired heart disease, including cardiomyopathy, myocarditis, or Kawasaki’s disease
5. Cyanotic neonatal or pediatric patient

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:

2. Direct observation and in-person feedback by attending physicians and residents.

Will students be expected to participate in call?  □ YES  □ NO
Does this rotation accept visiting students?  ☑ YES ☐ NO

**COURSE DESCRIPTION:**
This rotation offers initial exposure to Pediatric Gastroenterology and Nutrition. Students will work directly with attending gastroenterologists in inpatient, outpatient, and procedural settings. Emphasis will be on common clinical concerns such as reflux, constipation, chronic diarrhea but with opportunity to tailor rotation to student's interest and career goals. The Pediatric Gastroenterology team at MUSC has a wide variety of clinical strengths including general outpatient gastroenterology, liver transplant, pediatric neurogastroenterology, advanced endoscopy, inflammatory bowel disease, and nutrition.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Describe GI diseases in pediatrics, including their occurrence, care, outcome, and impact on child and family. (MK2-5, MK8, PC1-3, PC5-6)
2. Describe the outpatient and inpatient management of various GI diseases. (MK2-5, MK8, PC1-3, PC5-6)
3. Demonstrate an understanding of the importance of nutrition (both enteral and parenteral) for children with various GI diseases. (MK1-2, MK4, MK6-7, PC1, PC3, PC5, PL1)
4. Interpret growth patterns and PE findings of children with various GI diseases. (MK1-2, MK 4, MK6-7, PC1, PC3, PC5, PL1)
5. Describe how to perform common pediatric GI procedures and the indications for these procedures (EGD, colonoscopy, pH/impedance probes, ERCP, EUS and breath hydrogen testing). (MK1, MK5, PC1-3, MK5, MK7)

**INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Participation as integral member of the pediatric GI team.
2. Observation of GI procedures, including endoscopy and ERCP.
3. Participation in GI clinics and consults, including evaluating patients, determining pertinent physical exam finding and developing care-plan with the attending physicians.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Neonatal liver disease
2. Inflammatory bowel disease
3. Acute GI issues including bleeding
4. Constipation/encopresis
5. Gastroesophageal reflux disease
6. Eosinophilic Disorders
7. Jaundice and Elevated Liver Enzymes
8. Abdominal pain
9. Diarrhea

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by attending physicians and residents.

Will students be expected to participate in call?  ☑ YES ☐ NO
COURSE DESCRIPTION:
Fourth-year medical students will work as integral members of an interdisciplinary team on a busy pediatric cardiac critical care service. Working directly with specialists in pediatric cardiology and cardiothoracic surgery, the student will gain experience in assessing, stabilizing and developing care plans for critically ill pediatric patients with congenital or acquired heart disease. Students will become familiar with the cardiac anatomy and physiology of both pre-operative and post-operative congenital heart disease. Additionally, students will become familiar with the basics of mechanical ventilation, sedation and analgesia, resuscitation, shock and vasoactive medications, surgical emergencies, procedural indications and end-of-life care issues in the pediatric cardiac ICU. Students will observe and potentially participate in invasive procedures.

Students will participate in a mandatory orientation day to cover essential critical care subject matter. Participation is expected at all simulation-based procedural skills modules unless absence is excused. Students will be expected to work at least 20 shifts. Make-up dates for unexcused absences will take place the final weekend of the rotation and then at the discretion of the unit director. There is no expectation of night call, but it can be offered by the unit director as an integral learning experience or as make-up for unexcused absences. This rotation is recommended for students interested in pediatric specialties and cardiology.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Assess a critically ill patient and develop a timely, prioritized, and evidence-based plan for initial stabilization. (PC1, PC3)
2. Demonstrate understanding of normal cardiac anatomy and physiology and describe the various common congenital cardiac alterations in anatomy and physiology. Acknowledge limitations in knowledge and correct those deficits. (MK4, MK1, MK8, PD2)
3. Participate as a member of the diverse cardiac care team providing patient care in the inpatient setting. Demonstrate ownership of the patient and responsibly provide continuity of care with each patient and the care team. (PC1, PC5, CS1, CS5, PR1, IP4)
4. Demonstrate understanding of the barriers and socio-economic challenges for the complex congenital pediatric and adult patient, their families, and of the necessary support structures integral to patient care. (PR3, PR1, SL4)
5. Participate in cardiac procedures with sterile preparation and management of a sterile environment in a cardiac procedural suite. Observe cardiac surgical procedures for an understanding of the complexity of congenital cardiac surgery. (PC6, MK5, PC7)
6. Be able to obtain Informed Consent for diagnostic and therapeutic tests and procedures including verbalization of risks, benefits and alternatives. (PC3, PC7, ICS1, SBP3)
7. Identify relevant information in the primary medical literature regarding their patients’ disease states, and incorporate information from the literature into presentations and documentation. (PL3, CS5)
8. Demonstrate effective and professional interpersonal and communication skills, and model ethical behavior. (CS1, PR1, PR2)
9. Demonstrate empathy and discuss end of life issues with the patient and family including giving bad news. (PC1, PC3, CS1, CS2, CS3, PR3, PR1, PR2)
10. Work within a multidisciplinary team on daily rounds as an effective team member including mitigating patient risk and early identification of potential medical errors. (PR1, SL4, IP2, IP3, IP4)
11. Concisely summarize a patient’s critical illness and hand off important clinical information efficiently to other team members and consultants. (CS1, CS5, IP1, IP2, IP3, PC6)
12. Write complete and succinct systems based medical plan with H&Ps and daily progress notes in EPIC. (MK3, MK4, MK5, PC2, PC3, PC6, CS1, CS5, PR1, PR4, PR5)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will participate in all aspects of care including initial assessment, diagnosis, management and patient/family communication and decision making for critically ill patients.
2. Students will be expected to present their patients on rounds, and patient-centered clinical and educational topics will be discussed
3. The student will be given opportunities to observe echocardiography and cardiac catheterization available for delineating complex anatomy and interventional techniques for therapy.
4. Attend weekly specialty conferences: surgical and cath conferences – to understand the integration of medical and surgical care teams in the care of each congenital patient.
5. Students will attend and participate in didactic teaching session and simulation modules as part of the curriculum

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with conditions including:
1. Patient with a diagnosis of common cardiac lesions (i.e. VSD, ASD, and PDA, AV Canal defect, TOF, etc.)
2. Complex cardiac patient, including patients with single ventricular physiology in varying stages of repair
3. Critically ill premature or full-term neonate patient with secondary pulmonary hypertension
4. Acquired heart disease, including cardiomyopathy, myocarditis, or Kawasaki’s disease
5. Cyanotic neonatal or pediatric patient

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
1. E*Value Clinical Performance Evaluation
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Attending physicians and fellows will provide students with a verbal evaluation at end of rotation.
4. Students will give their attending a mid-point evaluation form for performance assessment.
Pediatrics 840: Developmental-Behavioral Pediatrics

Course Director: Jennifer Poon, MD  
Email: poon@musc.edu  
Course Coordinator: Emily McGinnis  
Telephone #: 843-792-8362  
Email: mcginnie@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>1</td>
<td>Block 3</td>
<td>1</td>
<td>Block 5</td>
<td>1</td>
<td>Block 7</td>
<td>1</td>
<td>Block 9</td>
</tr>
<tr>
<td>Block 1A</td>
<td>Block 3A</td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td>Block 9A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td>Block 3B</td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td>Block 9B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>1</td>
<td>Block 4</td>
<td>1</td>
<td>Block 6</td>
<td>1</td>
<td>Block 8</td>
<td>1</td>
<td>Block 10</td>
</tr>
<tr>
<td>Block 2A</td>
<td>Block 4A</td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td>Block 10A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td>Block 4B</td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td>Block 10B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☒ YES ☐ NO

Course Description:

Students will attend outpatient developmental clinics and perform supervised developmental assessments/evaluations for the spectrum of developmental and behavioral problems (ADHD, disruptive behavior disorders, learning disabilities, autism spectrum disorder, developmental delay, intellectual disability, spina bifida, and NICU infant follow-up). Students who have previously taken the selective—Introduction to Developmental-Behavioral Pediatrics—may work with the course director to further tailor this elective to their needs and interests.

Learning Goals & Objectives:

1. Implement the basics of developmental and behavioral screening and assessment of children ages 0-3, preschool, and school age. (PC1, CS1)
2. Demonstrate knowledge of typical versus atypical development. (MK1, M4, MK6)
3. Evaluate and counsel patients as part of an interprofessional team in an interdisciplinary experience. (PC1, PC5, IP1, IP2, IP3, IP4)
4. Discuss public laws, advocacy, and case management as they pertain to developmental and behavioral disorders. (SL2, SL4)

Instructional Methodologies and Rotation Activities:

Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:

1. Taking a complete and relevant history and performing a pertinent physical exam on patients presenting with a potential developmental/behavioral problem.
2. Administer and/or interpret age-appropriate screening tools to identify clinically significant developmental and/or behavioral concerns.
3. Reading and discussion of current literature on topics outlined in objectives as well as topics pertaining to specific patient encounters.
5. Discussion

Patient Encounters:

Students will be expected to work-up patients with these specified conditions:

1. ADHD, ODD, and disruptive behavior disorders
2. Learning disability, developmental delay, intellectual disability
3. Autism spectrum disorder
4. Developmental delay
5. Specific populations (e.g. NICU graduates, Down Syndrome, Cardiac Neurodevelopment, Spina Bifida, International Adoption)

Evaluation / Feedback Methods:

Students will be evaluated using the following methods:

2. Direct observation and in-person feedback by attending physicians and residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☒ YES ☐ NO
Does this rotation accept visiting students?  NO

COURSE DESCRIPTION:
Students interested in a career in Pediatrics, Obstetrics-Gynecology, or Family Medicine are eligible for this rotation. Enrollment requires permission from the course director prior to enrolling in this class. Physiology of lactation will be discussed in the context of mother/infant dyad, maternal and infant health condition. The mechanics of breast-feeding will be understood through didactic and bedside teaching and interaction with various faculty and certified lactation consultants. The structure and bioactive/protective effect of human milk will be discussed in terms of epidemiological studies. Lastly, the students will spend one afternoon in the lab processing a milk sample, staining the cells and looking at the human milk sample under the microscope.

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Describe the physiology of lactation. (MK1, MK3)
2. Describe the mechanics of breast-feeding and how to problem-solve. (MK1, PL6, PC3)
3. Describe the health implications of human milk feedings in terms of short- and long-term health benefits. (MK3, MK8, PC5)
4. Counsel the breast-feeding mother in a variety of clinical settings. (PL5, PC5, CS1)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Lectures.
2. Rounds/discussions.
3. Patient contact.
4. Lab.

PATIENT ENCOUNTERS:
Students will be expected to counsel patients:
1. On the importance of exclusive breastfeeding for the first 6 months of age.
2. About benefits of breast milk for pre-term infants.
3. About the legal rights related to breastfeeding in public.

EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by lactation consultants, attending physicians, and residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call?  NO
Does this rotation accept visiting students? ☒ YES ☐ NO

COURSE DESCRIPTION:
Students on this rotation will work alongside attendings and residents in the Pediatric Nephrology outpatient clinic and on inpatient consultations.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Describe the presenting signs of common pediatric nephrology problems and be able to formulate a differential diagnosis for these presenting signs. (MK3, MK4, PC2)
2. Describe the management of common pediatric nephrology problems. (MK3, PC3, PC5)
3. Demonstrate an understanding of general pediatrics issues in children with renal transplants (i.e. indication, how children qualify, associated immune suppression, effects on family, and vaccines after transplant). (MK3, MK4, MK5, PC5, CS1, CS4)
4. Demonstrate an understanding of how a subspecialist communicates with primary care providers, hospitalists, intensivists, surgical services, and emergency department physicians, and appreciate the role of other professionals (e.g., nursing staff) in the care of children with complex renal disease. (PC4, CS4, SL1, IP1, IP2, IP3, IP4)
5. Communicate effectively with patients and families across a broad range of socioeconomic and cultural backgrounds and in a variety of difficult situations. (CS1, CS2, CS3)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Lectures - student will give at least one talk on the rotation and will attend weekly small group lectures given by the nephrologist.
2. Rounds/discussions, including writing appropriate notes.
3. Reading the recommended articles.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Hematuria and proteinuria
2. Glomerular diseases (i.e. nephrotic syndromes, lupus nephritis, etc.)
3. Hypertension
4. Congenital Anomalies of the Kidneys and Urinary Tract
5. Nephrolithiasis
6. Renal Transplant

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by attending physicians and residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☐ YES ☒ NO
Does this rotation accept visiting students? □ YES  ☒ NO

COURSE DESCRIPTION:
Students will learn the impact of Genomics in medical practice now and in the future. Students will work closely with the geneticist and genetic counselors to evaluate, diagnose, and counsel patients with genetic diseases. Students will also be guided in their learning through computer-based sources of genetic information.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Access and analyze information from computer/internet-based sources of genetic information. (PL2, MK2)
2. Perform simple pedigree analysis and apply it to medical practice. (PL5, MK7, PC1)
3. Discuss the social/legal/ethical implications of predictive testing using genetic markers. (PL1, MK3, SL4, PR4)
4. Discuss the advantages and limitations of gene-based testing. (PL2, MK5)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Patient contact through participation in daily half-day clinics Monday through Friday
2. Rounds/discussions
3. Self-directed learning guided by course director and other teachers including genetic counselors and residents
4. Lab – one half-day session to be spent in the Cytogenetics and Molecular Pathology laboratory. Students will be graded incomplete if missed.
5. Attend phlebotomy lab to learn blood-drawing skills under supervision.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Rare and common genetic diseases, including developmental delay, autism, seizure disorders, hearing loss, and chromosomal and single gene (Mendelian) syndromes.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by attending physicians and residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? □ YES  ☒ NO
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
The student will be exposed to pediatric patients with acute and chronic diseases and will participate in the complete care of the patient as part of the general pediatric team. Clinical emphasis will include interviewing and physical examination skills, discussions of pathophysiology, and formulation of diagnostic and treatment plans.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Demonstrate improving interviewing and examining skills. (PC1, CS1, PL4)
3. Contribute to pathophysiology discussions. (MK1, PR1, CS1)
4. Formulate diagnostic and treatment plans. (MK8, PC3)
5. Formulate appropriate orders and preparing prescriptions. (PC4, PC5)
6. Identify criteria for admission and discharge from hospital. (MK6, PC1, SL2)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Patient contact
3. Rounds/discussions
4. Lectures

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Acute event (e.g., BRUE/apnea/cyanosis)
2. Dehydration
3. Fever
4. Respiratory distress
5. Chronic disease with complication

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by attending physicians and residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☑ YES ☐ NO
Students will take overnight call (24 hours of continuous duty) up to every 4 nights. Students will present their patients from the call night on rounds the next morning. Generally, students will be dismissed from rounds at 10:30 a.m. on their post-call day.
COURSE DESCRIPTION:
During this externship, students will work directly with specialists in pediatric cardiology and cardiothoracic surgery and serve as acting interns on the inpatient floor of the cardiac step-down unit. The student will take ownership of a group of patients, with all patient care activities to be performed and reported by the student. Students will be challenged to learn the skills necessary to care for the complex medical patient, to integrate and work closely with a complex and diverse medical team, and to learn the cardiac anatomy and physiology of the pre-operative and post-operative congenital cardiac patient.

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Demonstrate understanding of normal cardiac anatomy and physiology and describe the various common congenital cardiac alterations in anatomy and physiology. Acknowledge limitations in knowledge and correct those deficits. (MK4, MK1, MK8, PD2)
3. Participate as a member of the diverse cardiac care team providing patient care in the outpatient and inpatient setting. Demonstrate ownership of the patient and responsibly provide continuity of care with each patient and the care team. (PC1, PC5, CS1, CS5, PR1, IP4)
4. Demonstrate understanding of the barriers and socio-economic challenges for the complex congenital pediatric and adult patient, their families, and of the necessary support structures integral to patient care. (PR3, PR1, SL4)
5. Participate in cardiac procedures with sterile preparation and management of a sterile environment in a cardiac procedural suite. Observe cardiac surgical procedures for an understanding of the complexity of congenital cardiac surgery. (PC6, MK5, PC7)

INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Participation as an integral member of the cardiac inpatient team.
3. Participation in the critical evaluation and assessment of the pediatric cardiac consult.
4. Evaluation and assessment of the preoperative pediatric cardiac patient, surgical procedures, and follow-up of the patient in the early post-operative period focusing on the altered cardiac physiology.
5. The student will be given opportunities to observe echocardiography and cardiac catheterization available for delineating complex anatomy and interventional techniques for therapy.
6. Attend weekly care conferences: surgical and cath conferences – to understand the integration of medical and surgical care teams in the care of each congenital patient, and attend educational conferences for didactic teaching of congenital heart disease.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Patient with a common diagnosis (i.e. VSD, ASD, and PDA, AV Canal defect, TOF, etc.)
2. Complex cardiac patient, including patients with Single ventricular physiology in varying stages of repair
3. Critically ill premature or full-term neonate patient with secondary pulmonary hypertension
4. Acquired heart disease, including cardiomyopathy, myocarditis, or Kawasaki’s disease
5. Cyanotic neonatal or pediatric patient

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by attending physicians and residents.

Will students be expected to participate in call? ☑ YES ☐ NO
Overnight call is not required; however, rounding on the patients who have been followed by the student on the cardiac stepdown unit is required on one consecutive weekend during the externship - constitutes weekend call.
Does this rotation accept visiting students? ☒ YES ☐ NO

**COURSE DESCRIPTION:**
This rotation is in an ambulatory pediatric center and will allow the student to provide acute care and preventative health screenings to children ages 0-18 years of age. Depending on level of training and to assure exposure to all general pediatric issues, the students will alternate between seeing patients with acute care complaints one day and preventative appointments on the next (i.e. all 3rd year clerkship students will be assigned the same appointment type one day while the 4th year student will be assigned the opposite appointment type and then they will swap assignments on the next day). As an additional learning opportunity, 4th year students will have the opportunity, should they wish, to 1) accompany a general pediatric attending on Wednesdays to travel to a Georgetown outreach clinic to see patients with behavioral issues/ADHD, 2) see patients in Rutledge Tower in the co-located Foster Care Support Clinic, which is the medical home for all foster children in the tri-county Charleston area, and 3) work with our nursing staff for 0.5 - 1 day doing general pediatric clinic procedures, such as immunization delivery, hearing & vision screening, point of care testing, etc.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:

1. Demonstrate a solid knowledge base in outpatient general pediatrics with a better understanding of the psychosocial factors that contribute to the health of pediatric patients. (MK1, MK2, MK7, PC5, CS2, PR2, IP1, IP3)
2. Collect both focused and comprehensive, developmentally appropriate histories. (PC1, PR2, PD2)
3. Synthesize information gathered about sick and well children and then formulate diagnosis and treatment plans. (MK3, MK4, MK5, MK6, PC2, PC3, CS1, PD6, SL2)
4. Examine children of many developmental ages. (PC1, MK1)
5. Discuss age-appropriate health supervision principles. (PC5, CS1)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:

1. Patient contact
2. Lectures/conferences

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:

1. Well child/sports and camp physicals
2. Infection
3. School/behavior issues
4. Gastrointestinal issues
5. Dermatological issues

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:

2. Direct observation and in-person feedback by attending physicians and residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☐ YES ☒ NO
Does this rotation accept visiting students?  ❑ YES  ❑ NO

COURSE DESCRIPTION:
This is a hands-on rotation on the clinical hematology/oncology services. The student will be the acting intern for patients and will be involved in admissions, discharges, rounds, and daily care of the patients. The student will also have opportunities to participate in Tumor Board, consults, team teaching sessions, and procedures (i.e. bone marrow biopsies and pathology review).

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Describe pediatric oncology diseases and common hematological disorders. (MK1, MK2, MK4)
3. Present relevant clinical information in a concise manner. (MK5, MK6, MK7, MK8, CS1, CS4, CS5, PL3, PL4, PL5)
4. Interact appropriately with families of children suffering from chronic diseases. (PC1, PC5, CS2, CS3, PR1, PR2, PR3)
5. Manage time efficiently in clinical work. (PC6, PC7, PL1, PL2, SL1, SL2, IP1, IP2, IP3, IP4)
6. Demonstrate a patient and family-centered and humanistic approach to clinical work. (PC4, PC5, CS1, CS2, CS3, PR4, PR5, SL4, PL4, PL5)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Lectures
3. Rounds/discussions
4. Patient contact

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Anemia
2. Leukemia
3. Tumors, which will depend on the types of patients but likely include neuroblastomas, sarcomas, renal tumors, brain tumors, and lymphomas.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by attending physicians and residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call?  ❑ YES  ❑ NO
Students will follow the intern’s 12-hour shift workdays (6:30 am-6:30 pm) with the appropriate number of days off per the COM Education Hour Policy.
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
This course allows the student to gain additional fundamental knowledge of common genetic disorders encountered in day-to-day practice and experience in analyzing the complex psychosocial and emotional aspects of genetic disorders and counseling. Students will attend clinics staffed by an attending physician, a genetic counselor, and a registered dietitian (as needed) at the Children's Hospital and outreach sites and will perform supervised patient assessments, prepare case summaries, and literature search assignments. Students are not expected to be scribes and may write summaries for learning purpose.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Describe the basics of dysmorphology assessment. (MK1, PL2)
2. Demonstrate understanding of the principles and practice of genetic counseling. (MK6, PC5, SL4)
3. Demonstrate understanding of genetic testing in clinical practice. (MK8, PC1, SL3)
4. Discuss and consider the ethics of genetic medicine. (MK8, PC5, PR2)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Self-directed learning with guidance from course director and other teachers including genetic counselors and residents
2. Rounds/discussions.
3. Patient contact through participation in daily half-day clinics Monday thru Friday.
4. Lab: All students are expected to spend at least one half-day session in the cytogenetic and molecular pathology lab to learn basics of cytogenetic and molecular genetic analytical techniques from laboratory technologist and/or laboratory director(s). Completion of this assignment is required for earning a Pass or Honors grade.
5. Attend phlebotomy lab to learn blood-drawing skills under supervision (optional).

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Students will participate in assessments of patients with rare and common genetic disorders, the most common examples of which include developmental delay, autism, seizure disorders, hearing loss, congenital malformations, and chromosomal and single gene (Mendelian) syndromes.

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by attending physicians and residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☑ YES ☐ NO
COURSE DESCRIPTION:
Fourth-year medical students will work as integral members of an interdisciplinary team on a busy pediatric critical care service at the MUSC Children’s Hospital to learn about evaluation and management of acute care illness. With supervision and guidance, students will gain experience in assessing, stabilizing, and developing care plans for critically ill pediatric patients. Students will become familiar with the basics of mechanical ventilation, sedation and analgesia, resuscitation, shock and vasoactive medications, surgical emergencies, procedural indications and end-of-life care issues in the pediatric ICU. Students will observe and potentially participate in invasive procedures.

Students will participate in a mandatory orientation day to cover essential critical care subject matter. Participation is expected at all simulation-based procedural skills modules unless absence is excused. Students will be expected to work at least 20 shifts. Make-up dates for unexcused absences will take place the final weekend of the rotation and then at the discretion of the unit director. There is no expectation of night call, but it can be offered by the unit director as an integral learning experience or as make-up for unexcused absences. This rotation is recommended for students interested in pediatric specialties and emergency medicine.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Assess a critically ill patient and develop a timely, prioritized, and evidence-based plan for initial stabilization. (PC1, PC3)
2. Apply knowledge to develop evidence-based clinical plans for critically ill patients, including appropriate use of hemodynamic monitoring, application of ventilator modes and settings, and initiation and titration of vasomotor support. (MK4, MK5, PC3, PC6)
3. Be able to obtain Informed Consent for diagnostic and therapeutic tests and procedures including verbalization of risks, benefits and alternatives. (PC3, PC7, ICS1, SBP3)
4. Participate in and potentially perform procedures under direct supervision, including placement of arterial lines and central venous catheters while learning proper sterile technique. (MK8, PC7)
5. Identify relevant information in the primary medical literature regarding their patients’ disease states, and incorporate information from the literature into presentations and documentation. (PL3, CS5)
6. Demonstrate effective and professional interpersonal and communication skills, and model ethical behavior. (CS1, PR1, PR2)
7. Demonstrate empathy and discuss end of life issues with the patient and family including giving bad news. (PC1, PC3, CS1, CS2, CS3, PR3, PR1, PR2)
8. Participate in a basic family meeting to discuss goals of care including discussing and obtaining code status. (PC1, PC4, CS1, CS2, CS3, CS4, PR1, PR2, PR3)
9. Work within a multidisciplinary team on daily rounds as an effective team member including mitigating patient risk and early identification of potential medical errors. (PR1, SL4, IP2, IP3, IP4)
10. Understand quality improvement metrics in the ICU and the team’s role in reducing hospital acquired infections including VAE, CAUTI, CLASBI, etc. (MK7, PR4, PL4, PL5, PL6, SL3, IP4)
11. Concisely summarize a patient’s critical illness and hand off important clinical information efficiently to other team members and consultants. (CS1, CS5, IP1, IP2, IP3, PC6)
12. Write complete and succinct systems based medical plan with H&Ps and daily progress notes in EPIC. (MK3, MK4, MK5, PC2, PC3, PC6, CS1, CS5, PR1, PR4, PR5)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will participate in all aspects of care including initial assessment, diagnosis, management and patient/family communication and decision making for critically ill patients.
2. Students will be expected to present their patients on rounds, and patient-centered clinical and educational topics will be discussed.
3. Students will receive instruction in ventilator management, central line use, and invasive and non-invasive hemodynamic monitoring.
3. Students will learn about pharmacotherapy in the ICU, including vasopressors, antibiotics, sedatives, and analgesic medications.
4. Students will have the opportunity to learn about and potentially perform a variety of procedures, including intubation, central venous catheter placement, arterial catheter placement, and lumbar puncture.
5. Students will attend and participate in didactic teaching session and simulation modules as part of the curriculum.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with conditions from all organ systems, including:
1. Organ failure (respiratory, cardiac, renal, hepatic, metabolic, hematologic)
2. Acute deterioration of chronic disease states
3. Post-surgical care
4. Sepsis
5. Trauma

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
1. E*Value Clinical Performance Evaluation
2. Direct observation of patient care skills by the attending physician and residents on service.
3. Attending physicians will provide students with a verbal evaluation at end of rotation.
4. Students will give their attending a mid-point evaluation form for performance assessment.
COURSE DESCRIPTION:
Fourth-year medical students will work as integral members of an interdisciplinary critical care team on a busy neonatology service in academic and community facilities to learn about the evaluation and management of acute care illness in the perinatal period. With supervision and guidance, students will be directly involved in assessing, stabilizing, and developing care plans for critically ill neonates with a variety of complex diseases. Students will become familiar with the basics of delivery and resuscitation, mechanical ventilation, intravenous fluids, shock and vasoactive medications, surgical emergencies, procedural indications and end-of-life care issues in the neonatal ICU. Students will observe and potentially perform invasive procedures.

Students will participate in a mandatory orientation day to cover essential critical care subject matter. Participation is expected at all simulation-based procedural skills modules unless absence is excused. Students will be expected to work at least 20 shifts. Make-up dates for unexcused absences will take place the final weekend of the rotation and then at the discretion of the unit director. There is no expectation of night call, but it can be offered by the unit director as an integral learning experience or as make-up for unexcused absences. This rotation is recommended for students interested in Pediatrics.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Describe the pathophysiology of common neonatal problems and develop timely, prioritized, evidence-based plans for the management of sick newborns. (MK3, MK4, MK5, PC1, PC2, PC3)
2. Participate in the delivery and resuscitation of high-risk neonates. (PC7, IP1, IP3)
3. Describe nutritional needs of the neonate and describe the unique aspects neonatal pharmacology (MK2, MK5)
4. Define the importance of reassessment of patients and demonstrate the ability to reassess patients. (PC3, PC6, CS1)
5. Demonstrate effective and professional interpersonal and communication skills, and model ethical behavior. (CS1, PR1, PR2)
6. Identify relevant information in the primary medical literature regarding their patients’ disease state, and incorporate information from the literature into presentations and documentation. (PL3, CS5)
7. Concisely summarize a patient’s critical illness and hand off important clinical information efficiently to other team members and consultants. (CS1, CS5, IP1, IP2, IP3, PC6)
8. Write complete and succinct systems based medical plan with H&Ps and daily progress notes in EPIC. (MK3, MK4, MK5, PC2, PC3, PC6, CS1, CS5, PR1, PR4, PR5)
9. Participate in the transition of care from inpatient to home. (PC4, PC5, SL1)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will participate in all aspects of care including initial assessment, diagnosis, management and patient/family communication and decision making for critically ill neonates.
2. Students will be expected to present their patients on rounds, and patient-centered clinical and educational topics will be discussed
3. Students will be expected to attend and participate in high risk deliveries
4. Students will attend and participate in didactic teaching session and simulation modules as part of the curriculum

PATIENT ENCOUNTERS: Students will be expected to work-up patients with conditions from all organ systems, including:
1. Prematurity and associated myriad short-term and long-term morbidities
2. Congenital anomalies including congenital heart disease, congenital diaphragmatic hernia, airway anomalies as well as others
3. Difficulties in transition to extra-uterine life in term infant
4. Sepsis
5. Respiratory distress
6. Feeding issues
EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
1. E*Value Clinical Performance Evaluation
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Attending physicians and fellows will provide students with a verbal evaluation at end of rotation.
4. Students will give their attending a mid-point evaluation form for performance assessment.
Does this rotation accept visiting students? ☑ YES ☐ NO

COURSE DESCRIPTION:
This elective is designed to provide an in-depth and intensive exposure to both common and unusual infectious diseases of children. The student will participate in outpatient clinical visits and inpatient consults to all the pediatric services (subspecialty, ICU, and hospitalists).

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate an in-depth understanding of the epidemiology, pathogenesis, clinical manifestations, diagnosis and treatment of common pediatric infectious diseases. (MK3, MK8)
2. Explore subspecialty literature in pediatric infectious diseases and provide a basis for future independent learning. (MK5, PL3)
3. Demonstrate how to approach complicated patients with infectious diseases and how to evaluate serious or unusual infectious diseases. (PC3, PL4, PL5)
4. Display increasing skill in synthesizing clinical data to form a differential diagnosis list. (MK8, PC2)
5. Display increasing skill in writing organized, appropriately focused, and accurate patient notes. (PC1, CS5)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Lectures
2. Rounds/discussions
3. Patient contact

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Chronic and acute infections
2. Immunodeficiencies

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by attending physicians and residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.
PEDS 890: Child Abuse & Neglect

Course Director: Carrie Busch, MD
Email: buschc@musc.edu

Course Coordinator: Emily McGinnis
Telephone #: 843-792-8362
Email: mcginnie@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>0</td>
<td>Block 3</td>
<td>1</td>
<td>Block 5</td>
<td>1</td>
<td>Block 7</td>
<td>1</td>
</tr>
<tr>
<td>Block 1A</td>
<td>Block 3A</td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
<td>Block 9A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td>Block 3B</td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
<td>Block 9B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>0</td>
<td>Block 4</td>
<td>1</td>
<td>Block 6</td>
<td>1</td>
<td>Block 8</td>
<td>1</td>
</tr>
<tr>
<td>Block 2A</td>
<td>Block 4A</td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
<td>Block 10A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td>Block 4B</td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
<td>Block 10B</td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☐ YES ☒ NO

COURSE DESCRIPTION:
Course is available in 2- and 4-week blocks based on availability. Students must receive approval from the course director prior to enrolling in this course to ensure availability. Students will work with subspecialists in Child Abuse Pediatrics (CAP) and will see patients in both the MUSC CAP follow up clinic, the MUSC clinic at the Dee Norton Lowcountry Children’s Center (King Street), and the MUSC clinic at the Dorchester Children’s Center (Summerville). They will also participate in ER and inpatient consults as available.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate a logical and appropriate clinical approach to the care of suspected or confirmed victims of abuse or neglect. (MK3, MK5, PC1, PC2, PC3, CS1, CS3, PS3)
2. Access medical information efficiently, evaluate it critically, and apply it appropriately to the care of patients suspected of abuse or neglect. (MK8, PC3, PL3)
3. Communicate effectively with physicians, other health professionals, and community agencies. (CS4, PR1, PD6, IP3, IP4)
4. Access and comply with the laws that define a physician’s responsibilities when abuse or neglect is suspected. (PR4, SL3)
5. Demonstrate understanding of how to practice high-quality healthcare and advocate for patients suspected of abuse or neglect. (MK5, PC6, SL2)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Patient contact
2. Discussions
3. Conferences

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Physical abuse
2. Sexual abuse
3. Emotional abuse
4. Neglect

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by attending physicians, child abuse nurse practitioners and pediatric residents.
3. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☐ YES ☒ NO

Call is an optional experience. Call participation will not be reflected on the end of course evaluation.
Does this rotation accept visiting students? □ YES ☒ NO

COURSE DESCRIPTION: Students will have contact with inpatients at HealthSouth Rehabilitation Hospital, as well as consult on patients at the Medical University of South Carolina.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Identify diseases and aging processes that cause functional abnormalities. (MK1, MK3, MK5)
2. Demonstrate understanding and utilize common classification systems used in individuals with stroke (Brunnstrom), brain injury (Rancho Los Amigos), spinal cord injury (ASIA). (MK5)
3. Communicate functional goals and expectations to patients and caregivers. (PC1, PC5, CS2, IP3, PR1)
4. Become familiar with the format of documentation using a functionally-based template. (PC3, CS5)
5. Describe the roles and scope of practice and interact with members of a rehabilitation team. (CS4, IP2, IP3, IP4)
6. Identify patient factors and other requirements for the different rehab settings. (SL1, SL2)

INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Direct patient contact including initial evaluation and examination with daily follow up in the inpatient setting.
2. Attend interdisciplinary team conferences.
3. Evaluate and examine patients in consultation to assess for rehabilitation appropriateness.
4. Observe assigned patients during therapy sessions.
5. Participate in special learning opportunities when available (FEES evaluations, Neuropsychology rounds, Wound rounds, Pharmacy observation).

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Stroke, brain injury: To include hemiplegia, hemiparesis, aphasia, apraxia, neglect, dysphagia, cognitive deficit, dementia, spasticity
2. Spine and/or spinal cord injuries: bowel/bladder care, skin care, wheelchair fitting, neuropathic vs musculoskeletal pain
3. Orthopedic rehab: arthropathies, fractures, multi-trauma
4. Communication competency: rapport, comprehensibility, effectiveness

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation and in-person feedback by attending physician and/or resident physician; as well as rehabilitation team members.
3. Midpoint feedback from the course director or the assigned faculty co-director.

Will students be expected to participate in call? □ YES ☒ NO
**Does this rotation accept visiting students?** ☑ YES ☐ NO

**COURSE DESCRIPTION:**
Substance use disorders are among the most frequently encountered clinical conditions seen in medical and psychiatric practices. The Substance Abuse Treatment Clinic at the Charleston VAMC provides a broad array of services, including an intensive outpatient program, contingency management, and an opioid replacement program utilizing buprenorphine/naloxone (bup/nlx). Students on this rotation will participate in the treatment of patients who require detoxification, bup/nlx induction, stabilization, and maintenance treatment, for both substance use disorders and comorbid psychiatric disorders. Patients are primarily seen in a clinic setting. Students will also have an opportunity to attend groups and smoking cessation classes. **Interdisciplinary Education:** This elective not only benefits students interested in Psychiatry, but also those interested in Emergency Medicine, Internal Medicine (and subspecialties) and Family Medicine. **NOTE:** If the block a student is interested in is listed as unavailable, the student may contact the course coordinator.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate knowledge in the identification and treatment of substance use disorders including substance intoxication and withdrawal. (MK3, MK4, MK5, MK6, MK7, MK8, PC3, PC4, PC5, PC6, PC7, PL6, SL4, IP4)
2. Diagnose common substance use and psychiatric disorders and develop a treatment plan. (MK3, MK4, MK5, MK6, MK7, MK8, PC3, PC4, PC5, PC6, PC7, PL6, SL4, IP4)
3. Identify the medications used in the treatment of alcohol and opioid use disorders, including detoxification and smoking cessation. (MK5, PC3, PL6, SL2)
4. Develop appropriate interpersonal interactions with patients and the treatment team; improve clinical history taking, presentation, and documentation. (MK, PC1, PC2, PC3, PC4, PC5, PC6, PC7, CS1, CS2, CS3, CS5, PR, PR2, PR3, PR4, PR5, IP2, IP3, IP4)

**INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Assessment of patients with substance use disorders followed by presentation to attending addiction psychiatrist.
2. Documentation of patient encounters as described above.
3. Attendance and participation in rotation specific didactics.
4. Participation in the weekly Addiction Psychiatry Journal Club and leading the discussion of a minimum of one article.
5. Attend weekly MS4 workshop series. (Hearing Voices, Clinical Skills, Note Writing and Handoff Skills, Reflective Exercise)

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Substance use disorder(s)
2. Patients with co-morbid substance use and psychiatric disorders
3. Patients with substance-related acute co-morbid medical conditions.

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods.
1. Midpoint Evaluation and end of rotation E*Value Clinical Performance Evaluation
2. Direct observation by attending psychiatrists and residents during direct patient care.
3. Direct evaluation and feedback provided on both verbal and written presentations.
4. The student will be asked to lead a discussion of a relevant journal article during a meeting of the journal club.
5. Participation in MS4 workshop series.

**Will students be expected to participate in call?** ☑ YES ☐ NO
Does this rotation accept visiting students?  ☑ YES ☐ NO

**COURSE DESCRIPTION:**
The inpatient geriatric psychiatry unit is a full-service treatment facility for patients > 60 years old, with severe psychiatric illnesses. Students will complete initial work ups on patients being admitted to the unit, as well as follow patients throughout their stay. The student, as part of a team, takes responsibility for daily rounding duties, including participation in family meetings. 

**Interdisciplinary Education:** This elective not only benefits students interested in Psychiatry, but also those interested in Family Medicine, Internal Medicine (and subspecialties), Surgery (opportunity to see post-op patients w/delirium and/or cognitive disorders), Neurology, and Orthopedics. Students will be required to complete one weekend of rounding.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Explain evaluation criteria and management of dementia. (MK1, MK2, MK3, MK4, MK5, MK6, MK7, MK8, PL1, PL4, PL5, PL6)
2. Examine an elderly patient and identify, diagnose, and suggest treatment options for cognitive disorder and dementia plus comorbid signs and symptoms. (MK1, MK2, MK3, MK4, MK5, MK6, MK7, MK8, PC1, PC2, PC3, PC4, PC5, PC6, PC7, CS1, CS2, CS3, CS5, PR1, PR2, PR3, PR4, PR5, PL1, PL3, PL4, PL5, SL2, SL4, IP3, IP4)
3. Formulate the long-term treatment of dementia and describe how the medical team interacts with the patient’s family, assisted living, nursing home, and home health. (MK1, MK2, MK3, MK4, MK5, MK6, MK7, MK8, PC1, PC2, PC3, PC4, PC5, PC6, PC7, CS1, CS2, CS3, CS5, PR1, PR2, PR3, PR4, PR5, PL1, PL3, PL4, PL5, SL2, SL4, IP3, IP4)
4. Practice supervisory skills by providing third-year medical students with feedback on performance, documentation, and interviewing with guidance from residents or attending. (MK6, MK7, MK8, PC2, PC3, PC5, PC6, PC7, CS4, PR4, PD2, PD5, IP1, IP2, IP3)
5. Examine elderly patients and identify, diagnose, and suggest treatment options for mood disorders in elderly patients. (MK1, MK2, MK3, MK4, MK5, MK6, MK7, MK8, PC1, PC2, PC3, PC4, PC5, PC6, PC7, CS1, CS2, CS3, CS5, PR1, PR2, PR3, PR4, PR5, PL1, PL3, PL4, PL5, SL2, SL4, IP3, IP4)

**INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Accurately conduct and record psychiatric and medical workup of a geriatric patient.
2. Attend rounds daily; report findings and contribute to clinical discussion regarding diagnosis, treatment, and prognosis.
3. Assess clinical status of patient daily, write progress note and establish a supportive and therapeutic relationship with patient.
4. Attend Geriatric Psychiatry Journal Club or read a paper in the Journal of the American Geriatric Association or the American Association of Geriatric Psychiatry and discuss findings with team.
5. Complete a self-directed learning project that consists of a 10-minute presentation to the team.
6. Attend Psychiatry Grand Rounds.
7. Attend weekly MS4 workshop series. (Hearing Voices, Clinical Skills, Note Writing and Handoff Skills, Reflective Exercise)

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Dementia, depression, and/or delirium
2. Co-morbid conditions, including multiple psychiatric disorders as well as psychiatric and medical conditions
3. Schizophrenia

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Observation of students completing an initial psychiatric examination and H & P (resident, fellow, attending).
3. Observation of student discussing in depth history and physical examination findings, diagnosis, and treatment plan during rounds by a resident, fellow, and/or attending.
4. Completion of self-directed learning project and presentation graded by selective director.
5. Participation in MS4 workshop series.
6. At the end of the rotation, students will again receive verbal feedback about their performance.
PSYCH 860: Interventional Psychiatry

**Course Coordinator:** Deborah Kitts
Telephone #: 843-792-0343  
Email: kittsd@musc.edu

**Course Director:** Baron Short, MD  
Email: shorteb@musc.edu

---

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1A</td>
<td>1</td>
<td>Block 3A</td>
<td>1</td>
<td>Block 5A</td>
<td>1</td>
<td>Block 7A</td>
<td>1</td>
</tr>
<tr>
<td>Block 1B</td>
<td>1</td>
<td>Block 3B</td>
<td>1</td>
<td>Block 5B</td>
<td>1</td>
<td>Block 7B</td>
<td>1</td>
</tr>
<tr>
<td>Block 2</td>
<td>1</td>
<td>Block 4</td>
<td>1</td>
<td>Block 6</td>
<td>1</td>
<td>Block 8</td>
<td>1</td>
</tr>
<tr>
<td>Block 2A</td>
<td>1</td>
<td>Block 4A</td>
<td>1</td>
<td>Block 6A</td>
<td>1</td>
<td>Block 8A</td>
<td>1</td>
</tr>
<tr>
<td>Block 2B</td>
<td>1</td>
<td>Block 4B</td>
<td>1</td>
<td>Block 6B</td>
<td>1</td>
<td>Block 8B</td>
<td>1</td>
</tr>
</tbody>
</table>

---

**Does this rotation accept visiting students?** ☑ YES ☐ NO

**COURSE DESCRIPTION:**  
Many patients with neuropsychiatric disorders prove to be treatment-resistant or have difficulty tolerating first line psychopharmacologic treatments. These patients, particularly those with depression, are often referred for neuromodulatory interventions such as transcranial magnetic stimulation (TMS), electroconvulsive therapy (ECT), and deep brain stimulation (DBS). Psychiatry is in the early stages of formally recognizing and training “interventionists” who perform specialized procedures. This course will introduce students to neuromodulation and the emerging field of Interventional Psychiatry.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:

1. Demonstrate appropriate interpersonal interactions with patients, families, treatment team, and interdisciplinary teams during exams and interviews. (MK5, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PR4, PR5, IP2, IP3, IP4)
2. Identify psychiatric diagnoses using a multi-axial format and develop appropriate treatment plans (DSM 5). (MK2, MK3, MK4, MK5, MK6, MK8, PC1, PC2, PC3, PC4, PC5, PL3, PL6)
3. Evaluate patients with refractory psychiatric illness for neuromodulatory interventions. (MK6, MK8, PC1, PC2, CS1, PR1, PR2, PL5, SL1, IP4)
4. Discuss approved and experimental brain stimulation modalities, including but not limited to electroconvulsive therapy (ECT), transcranial magnetic stimulation (TMS), vagus nerve stimulation (VNS), deep brain stimulation (DBS), transcranial direct current stimulation (tDCS) and epidural cortical stimulation (EpCS). (MK3, MK4, MK5, MK6, MK7, MK8, PL2, PL5, PL6, SL1, SL3, SL4)
5. Explain the rationale behind non-invasive stimulation paradigms (e.g., TMS, tDCS, ECT) and invasive stimulation programming (e.g., DBS, VNS). (MK5, MK6, MK8, CS1, PL2, PL3, PL4, PL5, SL1)
6. Summarize the basic circuit dysfunction associated with common neuropsychiatric diagnoses. (MK2, MK3, MK4, MK5, MK6, MK8, PC1, PC2, PC3, PC4, PC5, PL3, PL6)

**INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:

1. Daily collaboration with the Interventional Psychiatry Fellow, the Brain Stimulation Service Director and the Director of the Brain Stimulation Laboratory in terms of patient evaluation, treatment and management.
2. Patient evaluation and management in weekly therapeutic clinics (e.g., TMS, ECT, etc.), which includes observation of programmable devices.
4. Self-directed reading of *Brain Stimulation Therapies for the Clinician*. (Book will be provided.)
5. Weekly attendance at Brain Stimulation Division meeting, Psychiatry Grand Rounds, and other clinical/didactic activities.
6. Attend weekly MS4 workshop series. (Hearing Voices, Clinical Skills, Note Writing and Handoff Skills, Reflective Exercise)

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:

1. Treatment-resistant mood disorders
2. Catatonia
3. Schizophrenia
4. Parkinson’s disease

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:

2. Verbal feedback from resident, fellow, attending physician on student performance, at least weekly.
3. Feedback on the self-directed learning project, graded by course director.
4. Participation in MS4 workshop series.
5. At the end of the rotation, students will again receive verbal feedback about their performance.

**Will students be expected to participate in call?** ☑ YES ☐ NO
Does this rotation accept visiting students? □ YES ☒ NO (This elective is located off the main campus.)

**COURSE DESCRIPTION:**
Forensic Psychiatry is a challenging and exciting field that interfaces psychiatry with the legal system. Students will learn the fundamental principles of forensic psychiatry, including principles related to mentally ill criminal defendants, issues related to the treatment of mentally ill in correctional settings, civil commitment procedures, and the fundamental differences between forensic psychiatric evaluations and clinical psychiatric evaluations. They will be provided opportunities to learn about legal matters as they pertain to psychiatric patients. For those interested, a Sexual Behaviors Clinic track is available within this course. **Interdisciplinary Education:** This elective not only benefits students interested in Psychiatry, but also those interested in Internal Medicine (and subspecialties), Family Medicine, and Pediatrics.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Conduct effective interviews, diagnose and differentiate primary psychiatric disorders from malingering, personality disorders and substance use disorders. (MK3, MK4, MK5, MK6, MK7, MK8, PC3, PC4, PC5, PC6, PC7, PL6, SL4, IP4)
2. Collaborate with the forensic team to develop an accurate diagnostic formulation and discuss how diagnoses may impact legal proceedings. (MK3, MK4, MK5, MK6, MK7, MK8, PC1, PC2, PC3, CS1, IP1, IP2, IP3, IP4)
3. Demonstrate knowledge of the fundamental principles of forensic psychiatry and pursue outside reading on unfamiliar legal and psychiatric topics. Complete assigned readings and prepare to participate in weekly discussions, landmark case law seminars, and preparation of legal briefs to present to the forensic team. (MK2, MK3, MK4, MK5, MK6, MK7, MK8, PD2, PL6, SL, 1. SL2, SL3, SL4, IP1, IP2, IP3, IP4)
4. Demonstrate developing skills to consult on psychiatric issues with disciplines outside of medicine, including attorneys, judges and detention center staff. (MK3, MK4, MK5, MK6, MK7, MK8, PR1, PR2, PR3, PR4, PR5, PL1, PL6)

**INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Completion, review, and discussion of forensic client charts, including psychiatric records and court related documents.
2. Observation/participation in forensic psychiatric evaluations with forensic faculty.
3. Observation of mental illness probate court and substance abuse probate court.
4. Attendance at forensic seminars and lectures.
5. Presentation to forensic faculty on a forensic psychiatric topic of student’s choosing studied in depth over course of rotation.
6. Attend weekly MS4 workshop series. (Hearing Voices, Clinical Skills, Note Writing and Handoff Skills, Reflective Exercise)

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Psychotic, Major Mood and Personality Disorders
2. Malingering
3. Substance Use Disorders

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation and supervision by faculty/residents during evaluations and other types of forensic activities.
3. Evaluation of presentation skills and knowledge of specific forensic topic during rotation presentation.
4. Participation in MS4 workshop series.
5. Students will receive verbal feedback about their performance

**Will students be expected to participate in call? □ YES ☒ NO**
Does this rotation accept visiting students? ☑ YES ☐ NO

COURSE DESCRIPTION:
Students will be instructed on the basic principles of providing psychiatric consultation in a medical and surgical setting. The students will have the opportunity to perform the consultations and function at the level of an intern while working as part of the Institute of Psychiatry consult team. Interdisciplinary Education: This elective not only benefits students interested in Psychiatry, but also those interested in primary care, Internal Medicine and medicine subspecialties, General Surgery and surgery subspecialties, and Ob/Gyn.

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Communicate effectively with patients, families, treatment team, and interdisciplinary teams through written documentation and verbal communication. (MK5, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PR4, PR5, IP2, IP3, IP4)
2. Diagnose and differentiate primary psychiatric disorders from those secondary to medical illness. Collaborate with team to develop an appropriate assessment and treatment plan. (MK3, MK5, MK6, PC1, PC2, PC3, CS1, IP1, IP2, IP3, IP4)
3. Demonstrate knowledge of common psychiatric presentations in the medical setting. Pursue outside reading on unfamiliar topics. (MK2, MK3, MK4, MK5, MK6, MK8, PD1, PD2, PD3, PD4, PD5, PD6, PL3, PL6)
4. Complete assigned readings and participate in discussion. Review a topic of interest based on a patient case to present to the team at the end of the rotation. (MK2, MK3, MK4, MK5, MK6, MK7, MK8, PD2, PD3, PD4, PD5, PD6, PL3, PL6)
5. Identify and demonstrate the skills to stabilize psychiatric disorders in the acute medical and surgical settings. Identify patients in need of care in a psychiatric acute care setting. (MK1-8, PC1, PC2, PC3, PC4, PC5, PC6, PC7, CS5)
6. Practice supervisory skills by providing third-year medical students with feedback on performance, documentation, and interviewing with guidance from residents or attending. (MK6, MK7, MK8, PC2, PC3, PC5, PC6, PC7, CS4, PR4, PD2, PD5, IP1, IP2, IP3)

INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Attend rounds daily; interview and assist in completing initial H&P, report findings and contribute to clinical discussions.
2. Complete daily notes, assess vitals, check pertinent labs, and communicate with family/interdisciplinary providers pertinent to your patient’s care.
3. Attend grand rounds and case conferences.
4. Complete research project with final presentation on a topic of interest pertaining to a patient’s symptoms and/or diagnosis seen and how the interprofessional team effected the outcome.
5. Attend weekly MS4 workshop series. (Hearing Voices, Clinical Skills, Note Writing and Handoff Skills, Reflective Exercise)

PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions:
1. Delirium
2. Primary and secondary mood disorders
3. Substance abuse and anxiety disorders
4. Assess decisional capacity

EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods:
2. Observation of student’s interviewing skills and overall interactions with patients and families.
3. Observation of student’s presentations and discussions of patient care.
4. Participation in MS4 workshop series
5. At the end of the rotation, students will again receive verbal feedback about their performance.

Will students be expected to participate in call? ☐ YES ☑ NO
Does this rotation accept visiting students? □ YES ☒ NO

**COURSE DESCRIPTION:**
The Child and Adolescent Unit (2N) in the Institute of Psychiatry, offers students the ability to enhance their evaluation, treatment, management and knowledge of a variety of childhood/adolescent psychiatric disorders on an acute inpatient psychiatric unit. Students on this externship are required to participate at the level of an intern. This unit provides brief crisis stabilization of youth (5-17) with severe mood, behavior, anxiety, substance use, and thought disorders. The treatment team works closely with the patient, the family, and community providers to stabilize the crisis, improve coping skills and communication, and to ensure a smooth transition back to the community.

**Interdisciplinary Education:** This externship not only benefits students interested in Psychiatry, but also those interested in: Pediatrics (including Developmental Pediatrics, Adolescent Medicine, and other pediatric subspecialties), Family Medicine, Neurology, and Pediatric Neurology.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:

1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Communicate effectively with patients, families, treatment team, and interdisciplinary teams through written documentation and verbal communication. (MK5, CS1, CS2, CS3, CS4, CS5, PR1, PR2, PR3, PR4, PR5, IP2, IP3, IP4)
3. Accurately identify and develop an appropriate treatment plan relating to common primary childhood psychiatric disorders. Pursue outside reading on unfamiliar topics. (MK2, MK3, MK4, MK5, MK6, MK8, PD1, PD2, PD3, PD4, PD5, PD6, PL3, PL6)
4. Demonstrate appropriate interpersonal interactions with child and adolescent patients (patient exams/interviews), family and staff. (PC1, PC2, PC3, PC4, CS1, CS2, CS3, CS5, PR1, PR2, PR3, PR4, PR5, IP2, IP3, IP4)
5. Identify and demonstrate treatment methods used in childhood psychiatric disorders (including psychopharmacology, group therapy, and family therapy) to provide effective and timely care taking into account appropriate resources for patients. (MK1, MK2, MK3, PK4, MK5, MK6, MK7, MK8, PC1, PC2, PC3, PC4, PC5, PC6, PC7, CS5, PR3, PR4, PL6, SL1, SL2, SL4, IP4)
6. Perform an appropriate mental status exam in youth. (MK3, PC1, PC2, CS1, CS3, PL1)
7. Demonstrate the ability to write orders, accurately write process notes, and complete discharge summaries consistent with that expected in the PGY 1 year. (MK6, MK8, PC1, PC2, PC3, CS1, CS5, PR2, PR3, PL1, PL4, PL5, PL6)
8. Practice supervisory skills by providing third-year medical students with feedback on performance, documentation, and interviewing with guidance from residents or attending. (MK6, MK7, MK8, PC2, PC3, PC5, PC6, PC7, CS4, PR4, PD2, PD5, IP1, IP2, IP3)

**INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:**

1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Accurately conduct and record psychiatric and medical workup of a child and adolescent patient.
3. Attend rounds daily; report findings and contribute to clinical discussion regarding diagnosis, treatment, and prognosis.
6. Complete a self-directed learning project using evidenced based medicine approach that consists of a 10-minute presentation to the team.
7. Attend Psychiatry Grand Rounds.
8. Attend weekly MS4 workshop series. (Hearing Voices, Clinical Skills, Note Writing and Handoff Skills, Reflective Exercise)

**PATIENT ENCOUNTERS:**

1. Attention deficit hyperactivity disorder
2. Oppositional defiant disorder/conduct disorder
3. Mood disorders
4. Anxiety disorders
5. Substance use disorders

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Students will be directly observed interviewing and assessing patients.
3. A 15-minute presentation, delivered to the entire treatment team, is required on a topic of his/her choice.
4. Students will be expected to utilize the principals of evidence-based medicine.
5. Participation in MS4 workshop series.
6. Students will receive verbal feedback about their performance.

**Will students be expected to participate in call?**  ☒ YES ☐ NO

Students are required to participate in 2 nights of short call and perform 2 weekends (4 days) of rounding.
Does this rotation accept visiting students? □ YES □ NO

COURSE DESCRIPTION:
The Adult Units in the Institute of Psychiatry (IOP) offer students the ability to enhance their knowledge of psychiatric disorders and treatment through exposure to a variety of psychiatric conditions. Students are encouraged to participate at the level of an intern.

Interdisciplinary Education: This elective not only benefits students interested in Psychiatry, but also those interested in Family Medicine, Internal Medicine (and subspecialties), Emergency Medicine, or fields that do not offer an externship.

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment (PC4, PC5, PC7, CS1)
2. Demonstrate a developing medical vocabulary and use written language effectively. (MK1, MK2, MK3, MK4, MK5, MK6, MK8, MK9, CS1, CS5, PD2)
3. Demonstrate appropriate interpersonal interactions with patients (patient exams/interviews) and staff. (PC1, PC2, PC3, PC4, CS1, CS2, CS3, CS5, PR1, PR2, PR3, PR4, PR5, IP2, IP3, IP4)
4. Accurately identify psychiatric diagnoses using Diagnostic and Statistical Manual 5 Criteria (DSM 5). (MK2, MK3, MK4, MK5, MK6, MK8, PC1, PC2, PL3, PL6)
5. Recognize personal limits in knowledge and experience, and pursue information necessary to understand and solve diagnostic and therapeutic problems utilizing an evidence-based approach. (MK2, MK3, MK4, MK5, MK6, MK8, PC1, PC2, PL3, PL6)
6. Practice supervisory skills by providing third-year medical students with feedback on performance, documentation, and interviewing with guidance from residents or attending. (MK6, MK7, MK8, PC2, PC3, PC5, PC6, PC7, CS4, PR4, PD2, PD5, IP1, IP2, IP3)
7. Identify and demonstrate the skills necessary to provide effective and timely care taking into account appropriate resources for patients. (MK1, MK2, MK3, MK4, MK5, MK6, MK8, PD1, PD2, PD3, PD4, PD5, PD6, PL3, PL6)
8. Demonstrate the ability to write orders, accurately write process notes, and complete discharge summaries consistent with that expected in the PGY 1 year. (MK6, MK8, PC1, PC2, PC3, CS1, CS5, PR1, PR2, PR3, PL1, PL2, PL3, PL4, PL5, PL6)
9. Practice supervisory skills by providing third-year medical students with feedback on performance, documentation, and interviewing with guidance from residents or attending. (MK6, MK7, MK8, PC2, PC3, PC5, PC6, PC7, CS4, PR4, PD2, PD5, IP1, IP2, IP3)

INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Daily pre-rounds and rounds.
4. Direct observation by faculty and residents during direct patient care and review of other clinical and didactic activities.
5. Grand Rounds.
6. Attend weekly MS4 workshop series. (Hearing Voices, Clinical Skills, Note Writing and Handoff Skills, Reflective Exercise)

PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions:
1. Substance use disorders
2. Mood, Anxiety and Psychotic Disorders
3. Cognitive Disorders (Delirium and Dementia)
4. Personality Disorders

EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods:
2. Students will be directly observed interviewing and assessing patients.
3. A 15-minute presentation, delivered to the entire treatment team, is required on a topic of his/her choice.
4. Students will be expected to utilize the principals of evidence-based medicine.
5. Participation in MS4 workshop series.
6. Students will receive verbal feedback about their performance.

**Will students be expected to participate in call and weekend rounds?** ☑ YES ☐ NO

Students are required to participate in 2 nights of short call and perform 2 weekends (4 days) of rounding.
Does this rotation accept visiting students? [ ] YES [ ] NO

**COURSE DESCRIPTION:**
This elective offers students the chance to enhance their knowledge of psychiatric disorders and treatment while rotating at our VA location. Students are expected to participate at the level of an intern and will be exposed to a variety of psychiatric conditions. **Interdisciplinary Education:** This elective not only benefits students interested in Psychiatry, but also those interested in Family Medicine, Internal Medicine (and subspecialties), Emergency Medicine, and fields that do not offer an externship.

**LEARNING GOALS & OBJECTIVES:**
At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment (PC4, PC5, PC7, CS1)
2. Demonstrate a developing medical vocabulary and use written language effectively. (MK1, MK2, MK3, MK4, MK5, MK6, MK8, CS1, CS5, PD2)
3. Demonstrate appropriate interpersonal interactions with patients (patient exams/interviews) and staff. (PC1, PC2, PC3, PC4, CS1, CS2, CS3, CS5, PR1, PR2, PR3, PR4, PR5, IP2, IP3, IP4)
4. Accurately identify psychiatric diagnoses using Diagnostic and Statistical Manual 5 Criteria (DSM 5). (MK2, MK3, MK4, MK5, MK6, MK8, PC1, PC2, PL3, PL6)
5. Identify personal limits in knowledge and experience, and pursue information necessary to understand and solve diagnostic and therapeutic problems utilizing an evidence-based approach. (MK2, MK3, MK4, MK5, MK6, MK8, PD1, PD2, PD3, PD4, PD5, PD6, PL3, PL6)
6. Identify and demonstrate the skills necessary to provide effective and timely care taking into account appropriate resources for patients. (MK1, MK2, MK3, MK4, MK5, MK6, MK7, MK8, PC1, PC2, PC3, PC4, PC5, PC6, PC7, CS5, PR3, PR4, PL6, SL1, SL2, SL4, IP4)
7. Demonstrate the ability to write orders, accurately write process notes, and complete discharge summaries consistent with that expected in the PGY 1 year. (MK6, MK8, PC1, PC2, PC3, CS1, CS5, PR2, PR3, PL1, PL4, PL5, PL6)
8. Practice supervisory skills by providing third-year medical students with feedback on performance, documentation, and interviewing with guidance from residents or attending. (MK6, MK7, MK8, PC2, PC3, PC5, PC6, PC7, CS4, PR4, PD2, PD5, IP1, IP2, IP3)

**INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:**
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Daily pre-rounds and rounds.
4. Direct observation by faculty and residents during direct patient care and review of other clinical and didactic activities.
5. Grand Rounds.
6. Attend weekly MS4 workshop series. (Hearing Voices, Clinical Skills, Note Writing and Handoff Skills, Reflective Exercise)

**PATIENT ENCOUNTERS:**
Students will be expected to work-up patients with these specified conditions:
1. Substance use disorders
2. Mood, Anxiety and Psychotic Disorders
3. Cognitive Disorders (Delirium and Dementia)
4. Personality Disorders

**EVALUATION / FEEDBACK METHODS:**
Students will be evaluated using the following methods:
2. Students will be directly observed interviewing and assessing patients.
3. A 15-minute presentation, delivered to the entire treatment team, is required on a topic of his/her choice.
4. Students will be expected to utilize the principals of evidence-based medicine.
5. Participation in MS4 workshop series.
6. Students will receive verbal feedback about their performance.

Will students be expected to participate in call and weekend rounds? [ ] YES [ ] NO
Students are required to participate in 2 nights of short call and perform 1 weekend (2 days) of rounding.
Course Coordinator: Deborah Kitts
Telephone #: 843-792-0343
Email: kittsd@musc.edu

Course Director: Ben Kalivas, MD, and Kristen Mullinax, MD
Email: kalivas@musc.edu, williakr@musc.edu

Does this rotation accept visiting students? ☑ YES ☐ NO

COURSE DESCRIPTION:
Students who rotate on this elective will participate in a variety of clinical activities with attending faculty trained in both Internal Medicine and Psychiatry. Students may participate on inpatient medicine and/or psychiatry teams, on consult psychiatry service, and in outpatient clinics in Rutledge Tower, at the Institute of Psychiatry, and at the VA.

LEARNING GOALS & OBJECTIVES:
At the completion of this clinical rotation students should be able to do the following:
1. Utilize the aspects of collaborative clinical medicine, practiced by physicians who have training in both internal medicine and psychiatry, to develop an appropriate assessment and treatment plan. (MK3, MK5-6, PC1-3, CS1, IP1-4)
2. Demonstrate improved ability to identify psychiatric pathology that is interfering with appropriate and/or effective medical care. (MK3, MK5-6, PC1-3, CS1, IP-4)
3. Recognize personal limits in knowledge and experience, and pursue information necessary to identify the capacity of the psychiatrist’s ability to manage medical pathology. (MK2, MK3-6, MK8, PD16, PL3, PL6)
4. Demonstrate improved understanding of how physicians with dual training practice. (MK5-6, CS4, PR2, PD3-6, IP1-4)
5. Identify and demonstrate the skills necessary to provide effective and timely care taking into account appropriate resources for patients. (MK1-8, PC1-7, CS5, PR3-4, PL6, SL1-2, SL4, IP4)
6. Identify and demonstrate the skills to stabilize psychiatric disorders in the acute medical setting. Identify patients in need of care in a psychiatric acute care setting. (MK1-8, PC1-7, CS5)
7. Practice supervisory skills by providing third-year medical students with feedback on performance, communication, and interviewing with guidance from residents or attending. (MK6-8, PC2-3, PC5-7, CS4, PR4, PD2, PD5, IP1-3)

INSTRUCTIONAL METHODOLOGIES & ROTATION ACTIVITIES:
Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Follow 2-4 patients, on both internal medicine and psychiatry inpatient teams, and accurately conduct and record psychiatric and medical workup of a patient.
2. Attend rounds daily, report findings, and contribute to clinical discussions.
3. Complete daily notes, assess vitals, check pertinent labs, and communicate with family/interdisciplinary providers pertinent to patient care.
4. Attend grand rounds and case conferences.
5. Complete a self-directed learning project that consists of a presentation at MedPsych Resident Meeting.
6. Attend weekly MS4 workshop series (Hearing Voices, Clinical Skills, Note Writing and Handoff Skills, Reflective Exercise).

PATIENT ENCOUNTERS:
Students will be expected to work-up patients with these specified conditions:
1. Delirium
2. Substance withdrawal with medical complications
3. Toxic ingestion
4. HIV associated neurocognitive disorders
5. Comorbid medical and psychiatric conditions with severe psychosocial stressors (e.g. homelessness)

EVALUATION / FEEDBACK METHODS:
Students will be evaluated using the following methods:
2. Case presentation at MedPsych Resident meeting (interpersonal and communication skills).
3. Observation of students completing an initial psychiatric examination and H & P (resident, fellow, attending).
4. Observation of student discussing in-depth history and physical examination findings, diagnosis, and treatment plan during rounds by a resident, fellow, and/or attending.
5. Participation in MS4 workshop series.
6. At the end of the rotation, students will again receive verbal feedback about their performance.

Will students be expected to participate in call? ☑ YES ☐ NO
Does this rotation accept visiting students? ☑ YES ☐ NO

COURSE DESCRIPTION:
This course is designed to provide students with a better understanding of the central role of diagnostic radiology in the evaluation and management of patients through participation in reading room readouts, lectures, case conferences/presentations, online assignments, interactive labs, and observation of the various imaging modalities and procedures. Students will tailor their experience to their clinical interests by spending one week in four of the following areas: Body, Cardiac, Chest, IR, MSK, Nuclear Medicine, Neuroradiology, Pediatrics, or Ultrasound.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Describe the fundamental role of the radiologist as consultant and the value of imaging to provide timely, accurate, and actionable diagnostic information regarding a patient’s medical condition. (MK5, MK8, IP1, IP2, IP3, SL2)
2. Discuss the indications and appropriateness of imaging studies for common clinical problems and utilize evidence-based resources (ACR Appropriateness Criteria) to determine imaging appropriateness for less common clinical problems. (MK5, MK8, PC3, PL3)
3. Describe the risks of medical imaging: radiation induced cancer, contrast nephropathy, contrast reactions, and MRI safety. (MK5, MK8, PC6)
4. Describe how common procedures and imaging are performed. (MK5, PC1)
5. Apply basic interpretive skills to evaluate imaging studies (plain films and CT), including study identification, recognition of normal radiographic and cross-sectional anatomy and common, potentially life-threatening pathology. (MK1, MK3, PC1, PC2)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Clinical exposure: Students will participate in clinical services interacting with and observing residents and faculty daily.
2. Lectures/conferences: Resident-led lectures, faculty-led case presentations, resident conferences, and Grand Rounds.
3. Three interactive labs: Hands on ultrasound scanning with ultrasound guided vascular access, paracentesis and biopsy simulation, a 4D imaging lab, and an interactive introduction to interventional radiology tubes, lines and drains.
4. Reading assignments: Each student will receive a copy of Herring’s Learning Radiology, Goodman’s Felson’s Principles of Chest Roentgenology and accompanying web resources.
5. Online materials: Aquifer CORE cases, AHRQ’s Web M&M scenarios, and Radiographic Anatomy review.
6. Formal presentation of an Evidence Based Imaging case including differential diagnostic considerations, appropriate imaging workup, complications, cost, and radiation dose.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Normal and abnormal imaging studies and procedures on current MUSC patients
2. Broad spectrum of pathology, acute, chronic, medical, and surgical diseases in patients of all ages

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
1. Mid-point feedback and end of rotation E*Value Clinical Performance Evaluation.
2. Direct observation of the student’s clinical work by the resident and attending physicians.
3. Student participation in case conferences, Evidence Based Imaging Presentation and interactive workshops.
4. Performance on two quizzes based on online assignments, textbook, and material presented in lectures and case conferences.

Will students be expected to participate in call? ☑ YES ☐ NO
**Course Director:** Jeanne Hill, MD  
Email: hillj@musc.edu

**Course Coordinator:** Angie Maguire  
Telephone #: 843-792-2473  
Email: maguiran@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>0</td>
<td>Block 3</td>
<td>2</td>
<td>Block 5</td>
<td>2</td>
<td>Block 7</td>
<td>2</td>
</tr>
<tr>
<td>Block 1B</td>
<td>Block 3A</td>
<td>Block 5A</td>
<td>Block 7A</td>
<td>Block 9A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>2</td>
<td>Block 4</td>
<td>2</td>
<td>Block 6</td>
<td>0</td>
<td>Block 8</td>
<td>2</td>
</tr>
<tr>
<td>Block 2B</td>
<td>Block 4B</td>
<td>Block 6B</td>
<td>Block 8B</td>
<td>Block 10B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Does this rotation accept visiting students?** ☑ YES ☐ NO

**Course Description:**  
This course is designed to provide students with a better understanding of the central role of diagnostic radiology in the evaluation and management of pediatric patients through participation in reading room readouts, clinical rounds, lectures, case conferences/presentations, online assignments, interactive labs, and observation of the various imaging modalities and procedures. Students will spend the entire rotation in the Pediatric reading room.

**Learning Goals & Objectives:** At the completion of this clinical rotation students should be able to do the following:
1. Describe the fundamental role of the radiologist as consultant and the value of imaging to provide timely, accurate, and actionable diagnostic information regarding a patient’s medical condition. (MK5, MK8, IP1, IP2, IP3, SL2)
2. Discuss the indications and appropriateness of imaging studies for common clinical problems and utilize evidence based resources (ACR Appropriateness Criteria) to determine imaging appropriateness for less common clinical problems. (MK5, MK8, PC3, PL3)
3. Describe the risks of medical imaging: radiation induced cancer, contrast nephropathy, contrast reactions and MRI safety. (MK5, MK8, PC6)
4. Describe how common procedures and imaging are performed. (MK5, PC1)
5. Apply basic interpretive skills to evaluate imaging studies (plain films, CT, US) including study identification, recognition of normal radiographic and cross-sectional anatomy, and common, potentially life-threatening pathology. (MK1, MK3, PC1, PC2)

**Instructional Methodologies and Rotation Activities:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Clinical exposure: Students will participate in clinical services interacting with and observing residents and faculty daily.
2. Lectures/conferences: Resident-led lectures, faculty-led case presentations, resident conferences, and Grand Rounds.
3. Three interactive labs: Hands on ultrasound scanning with ultrasound guided vascular access, paracentesis and biopsy simulation.
4. Reading assignments: Each student will receive a copy of Donnelly’s *Pediatric Imaging: The Fundamentals* and accompanying web resources.
5. Online materials: Aquifer CORE cases, Online Pediatric Radiology Curriculum, AHRQ’s Web M&M scenarios, and Radiographic Anatomy review.
6. Formal presentations of Evidence Based Imaging cases including differential diagnostic considerations, appropriate imaging workup, complications, cost, and radiation dose.
7. Teaching file cases: Students will be required to complete in Horizon Study Share one teaching file case per week.

**Patient Encounters:** Students will be expected to work-up patients with these specified conditions:
1. Normal and abnormal imaging studies and procedures on current MUSC inpatients and outpatient
2. Wide variety of clinical conditions including acute and chronic, medical and surgical diseases in pediatric patients

**Evaluation / Feedback Methods:** Students will be evaluated using the following methods:
1. Mid-point feedback and end of rotation E*Value Clinical Performance Evaluation.
2. Direct observation of the student’s clinical work by the resident and attending physicians.
3. Student participation in case conferences, Evidence Based Imaging Presentation and interactive workshops.
4. Quiz performance based on online assignments, textbook, and material presented in resident and case conferences.
5. Evaluation of teaching file cases to Course Director and final case presentation to the class.

**Will students be expected to participate in call?** ☑ YES ☐ NO
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:** Students will learn about the role of Vascular and Interventional Radiology in patient care, including inpatient and outpatient scenarios and gain insight into the services it provides by observing and participating in consultations, pre-procedural planning, image guided procedures, and post procedural follow up. Students will attend VIR conferences, Vascular Surgery conferences, general radiology lectures, case conferences and presentations, and complete on-line assignments. Students will spend the entire rotation in the IR procedure area.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Describe the fundamental role of the interventional radiologist as a consultant and the value of image guided procedures to provide safe minimally invasive procedures to aid in the treatment regarding a patient’s medical condition. (MK8, SL2, PC3)
2. Discuss indications, contraindications, and appropriateness of imaging studies and image-guided procedures for common clinical problems and utilize evidence-based resources to determine imaging appropriateness for less common clinical problems. (MK5, PC6, PL2, PR2, IP3)
3. Describe the risks and benefits of the various image guided procedures offered by our service as well as alternative strategies available to the patient regarding their specific medical condition. (MK5, CS4, PC5, PR1)
4. Describe how common procedures are performed, pre-procedure workup and post-procedural follow-up. (MK5, PC7)
5. Apply interpretive skills to evaluate images obtained during procedures, (fluoroscopic and CT), including study identification, recognition of radiographic and cross-sectional anatomy, and common, potentially life-threatening pathology. (MK5, PC2, PL3)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Clinical exposure: Students will participate in clinical services interacting with and observing residents and faculty daily.
2. Lectures/conferences: Resident-led lectures, faculty-led case presentations, resident conferences, and Grand Rounds.
3. Three interactive labs: Hands-on ultrasound scanning with ultrasound guided vascular access, paracentesis and biopsy simulation, a 4D imaging lab, and an interactive introduction to interventional radiology tubes, lines and drains.
5. Online materials: Aquifer CORE cases, AHRQ’s Web M&M scenarios, and Radiographic Anatomy review.
6. Formal presentations of Evidence Based Imaging cases including differential diagnostic considerations, appropriate imaging workup, complications, cost, and radiation dose.
7. Teaching file cases: Students will be required to complete in Horizon Study Share one teaching file case per week.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Normal and abnormal imaging studies and procedures on current MUSC patients
2. Wide variety of clinical conditions including acute and chronic, medical and surgical
3. Inpatient consultations pre and post procedure.

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
1. Mid-point feedback and end of rotation E*Value Clinical Performance Evaluation.
2. Direct observation of the student’s clinical work by the residents, fellows and attending physicians.
3. Student participation in case conferences, Evidence Based Imaging Presentation and interactive workshops.
4. Quiz performance based on online assignments, textbook, and material presented in resident and case conferences.
5. Evaluation of teaching file cases to Course Director and final case presentation to the class.

Will students be expected to participate in call? ☑ YES ☐ NO
Does this rotation accept visiting students? □ YES □ NO

COURSE DESCRIPTION: This course is designed to provide students with a better understanding of the central role of diagnostic radiology and more specifically neuroradiology in the evaluation and management of patients through participation in reading room readouts, lectures, case conferences/presentations, online assignments, interactive labs, and observation of the various imaging modalities and procedures. Students will spend the entire rotation in the Neuroradiology reading room.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Describe the fundamental role of the radiologist as consultant and the value of imaging to provide timely, accurate, and actionable diagnostic information regarding a patient’s medical condition. (MK5, MK8, CS4, SL2)
2. Discuss the indications and appropriateness of imaging studies for common clinical problems and utilize evidence-based resources (ACR Appropriateness Criteria) to determine imaging appropriateness for less common clinical problems. (MK5, MK8, PC1, PC2, CS1, CS4, PR1, PR2, PL2, PL3, SL2)
3. Describe the risks of medical imaging: radiation induced cancer, contrast nephropathy, contrast reactions and MRI safety. (MK2, PC1, PC6, CS4, PR2, PL3)
4. Describe how common neuroradiologic procedures and imaging are performed. (PC1, PC3, PC5, PC6, PC7, CS2, CS5, PR2, PR3, IP3)
5. Apply basic interpretive skills to evaluate common imaging studies, (CT and MR)-inducing study identification, recognition of normal radiographic and cross-sectional anatomy, and common, potentially life-threatening pathology. (MK1, MK3, MK4, PC2, CS4, CS5, PD2, PL5, IP4)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Clinical exposure: Students will participate in clinical services interacting with and observing residents and faculty daily.
2. Lectures/conferences: Resident led-lectures, faculty-led case presentations, resident conferences, and Grand Rounds.
3. Three interactive labs: Hands on ultrasound scanning with ultrasound guided vascular access, paracentesis and biopsy simulation, a 4D imaging lab, and an interactive introduction to interventional radiology tubes, lines and drains.
4. Reading assignments: Each student will receive a copy of Herring’s Learning Radiology, Goodman’s Felson’s Principles of Chest Roentgenology and accompanying web resources.
5. Online materials: Aquifer CORE cases, AHRQ’s Web M&M scenarios, and Radiographic Anatomy review.
6. Formal presentations of Evidence Based Imaging cases including differential diagnostic considerations, appropriate imaging workup, complications, cost, and radiation dose.
7. Teaching file cases: Students will be required to complete in Horizon Study Share one teaching file case per week.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Normal and abnormal imaging studies and procedures on current MUSC patients
2. Wide variety of clinical conditions including acute and chronic, medical and surgical diseases in patients of all ages

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
1. Mid-point feedback and end of rotation E*Value Clinical Performance Evaluation.
2. Direct observation of the student’s clinical work by the resident and attending physicians.
3. Student participation in case conferences, Evidence Based Imaging Presentation and interactive workshops.
4. Quiz performance based on online assignments, textbook, and material presented in resident and case conferences.
5. Evaluation of teaching file cases to Course Director and final case presentation to the class.

Will students be expected to participate in call? □ YES □ NO
RAD 858: Ultrasound Radiology

Course Director: Susan Ackerman, MD
Email: ackerman@musc.edu

Course Coordinator: Angie Maguire
Telephone #: 843-792-2473
Email: maguiran@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>0</td>
<td>Block 3</td>
<td>2</td>
<td>Block 5</td>
<td>2</td>
<td>Block 7</td>
<td>2</td>
</tr>
<tr>
<td>Block 1B</td>
<td>Block 3B</td>
<td>Block 5A</td>
<td>Block 7A</td>
<td>Block 9A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>2</td>
<td>Block 4</td>
<td>2</td>
<td>Block 6</td>
<td>0</td>
<td>Block 8</td>
<td>2</td>
</tr>
<tr>
<td>Block 2A</td>
<td>Block 4A</td>
<td>Block 6A</td>
<td>Block 8A</td>
<td>Block 10A</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td>Block 4B</td>
<td>Block 6B</td>
<td>Block 8B</td>
<td>Block 10B</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☒ YES ☐ NO

COURSE DESCRIPTION:
This course is designed to provide students with a better understanding of the central role of diagnostic radiology in the evaluation and management of patients through participation in reading room readouts, lectures, case conferences/presentations, online assignments, interactive labs, and observation of the ultrasound interpretation and procedures. This course is designed to introduce participants to the role of ultrasound in patient care including the appropriateness criteria for the use of diagnostic ultrasound and ultrasound guided procedures.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Describe the fundamental role of the radiologist as consultant and the value of imaging to provide timely, accurate, and actionable diagnostic information regarding a patient’s medical condition. (MK5, PC2)
2. Discuss the indications and appropriateness of imaging studies for common clinical problems and utilize evidence based resources to determine imaging appropriateness for less common clinical problems. (SL2, PL2)
3. Describe the risks of medical imaging: radiation induced cancer, contrast nephropathy, contrast reactions and MRI safety. (MK5, PC6)
4. Describe how common procedures and imaging are performed. (MK5, CS4)
5. Apply basic interpretive skills to evaluate imaging studies, (plain films, US, CT) – including study identification, recognition of nl radiographic and cross-sectional anatomy and common, potentially life-threatening pathology. (MK5, PC6)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Clinical exposure: Students will participate in clinical services interacting with and observing residents and faculty daily.
2. Lectures/conferences: Resident-led lectures, faculty-led case presentations, resident conferences, and Grand Rounds.
3. Three interactive labs: Hands on ultrasound scanning with ultrasound guided vascular access, paracentesis and biopsy simulation, a 4D imaging lab, and an interactive introduction to interventional radiology tubes, lines and drains.
4. Reading assignments: Each student will receive a copy of Herring’s Learning Radiology, Goodman’s Felson’s Principles of Chest Roentgenology and accompanying web resources.
5. Online materials: Aquifer CORE cases, AHRQ’s Web M&M scenarios, and Radiographic Anatomy review.
6. Formal presentation of an Evidence Based Imaging case including differential diagnostic considerations, appropriate imaging workup, complications, cost, and radiation dose.
7. Teaching file cases: Students will be required to complete in Horizon Study Share one teaching file case per week.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Normal and abnormal imaging studies and procedures on current MUSC patients
2. Wide variety of clinical conditions including acute and chronic, medical and surgical diseases in patients of all ages

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
1. Mid-point feedback and end of rotation E*Value Clinical Performance Evaluation.
2. Direct observation of the student’s clinical work by the resident and attending physicians.
3. Student participation in case conferences, Evidence Based Imaging Presentation and interactive workshops.
4. Quiz performance based on online assignments, textbook, and material presented in resident and case conferences.
5. Evaluation of teaching file cases to Course Director and final case presentation to the class.

Will students be expected to participate in call? ☐ YES ☒ NO
**RAD 861: Breast Radiology**

**Course Director:** Rebecca Leddy, MD  
Email: leddyr@musc.edu  

**Course Coordinator:** Angie Maguire  
Telephone #: 843-792-2473  
Email: maguiran@musc.edu  

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>0</td>
<td>Block 3</td>
<td>1</td>
<td>Block 5</td>
<td>1</td>
<td>Block 7</td>
<td>1</td>
<td>Block 9</td>
<td>1</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td>1</td>
<td>Block 5A</td>
<td>1</td>
<td>Block 7A</td>
<td>1</td>
<td>Block 9A</td>
<td>1</td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
<td>Block 9B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td></td>
<td>Block 4</td>
<td></td>
<td>Block 6</td>
<td>0</td>
<td>Block 8</td>
<td></td>
<td>Block 10</td>
<td>0</td>
</tr>
<tr>
<td>Block 2A</td>
<td>1</td>
<td>Block 4A</td>
<td>1</td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td>1</td>
<td>Block 10A</td>
<td>1</td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
<td>Block 10B</td>
<td>1</td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☐ YES ☒ NO

**COURSE DESCRIPTION:** This course is designed to provide students with an understanding of diagnostic radiology as it pertains to breast imaging and management of clinical breast disease. Students will participate in reading room readouts, lectures, case conferences/presentations, online assignments, and observation of the various imaging modalities and procedures in breast imaging. Students will attend breast radiology pathology concordance conference and breast tumor board. Students will spend the entire rotation in the breast imaging reading room and Hollings Cancer Center Mammography/Breast Imaging Suite. This is a 2-week course, but is offered as a 4-week course upon request. If interested in the 4-week course, please contact the Course Coordinator.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation, students should be able to do the following:
1. Describe the fundamental role of radiologist as consultant and the value of imaging to provide timely, accurate, and actionable diagnostic information in screening for breast cancer, evaluation of breast conditions, and a patient’s medical condition. (MK5, PC2, CS4, SL2)
2. Discuss the indications and appropriateness of imaging studies for common clinical breast problems and utilize evidence based resources (ACR Appropriateness Criteria) to determine imaging appropriateness (MK8, PL1, PL6, PR2, SL3)
3. Describe the various imaging modalities that may be used to diagnose breast conditions. Differentiate between screening and diagnostic mammogram, the appropriate utilization of breast ultrasound and breast MRI. (MK5, PL2, SL2)
4. Describe how common procedures and imaging are performed. (MK5, CS3, PC7)
5. Apply basic interpretative skills to evaluate imaging studies including study identification and recognition of utilization. Identify various features of normal/abnormal breast tissue on imaging modalities such as mammograms, ultrasound, MRI, etc. (MK4, PC2, PL4)
6. Discuss the multidisciplinary collaboration to evaluating and managing breast cancer patients. (PC4, PR1, IP2, IP3, IP4)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will participate in clinical services interacting with and observing residents, fellows, and faculty daily
2. Lectures/conferences: Resident-led lectures, faculty-led case presentations, resident conferences, radiology pathology concordance conference, Hollings Cancer Center breast tumor board, and Grand Rounds
3. Three interactive labs: Hands-on ultrasound scanning with ultrasound guided vascular access, paracentesis and biopsy simulation, a 4D imaging lab, and an interactive introduction to interventional radiology tubes, lines and drains
4. Reading assignments: Breast Imaging-Reporting and Data System (BI-RADS) mammography section available in the reading room, JACR journal screening mammogram recommendations 2010, ACR appropriateness criteria screening mammogram and palpable breast masses, and accompanying web resources. Each student will receive a copy of Herring’s *Learning Radiology* and Goodman’s *Felson’s Principles of Chest Roentgenology*
5. Online Materials: Aquifer CORE cases, AHRQ’s Web M&M scenarios, and Radiographic Anatomy review
6. Formal presentations of Evidence Based Imaging cases including differential diagnostic considerations, appropriate imaging workup, complications, cost, and radiation dose.
7. Teaching file cases: Students will be required to complete in Horizon Study Share one teaching file case per week.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Normal and abnormal imaging studies and procedures on current MUSC patients
2. Broad spectrum of pathology, acute, chronic, medical, and surgical diseases pertaining to breast care

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
1. A Mid-point direct feedback provided and end of rotation E*Value Clinical Performance Evaluation
2. Direct observation of the student’s clinical work by the resident, fellow, and attending physicians
3. Student participation in case conferences, Evidence Based Imaging Presentation and interactive workshops.
4. Quiz performance based on online assignments, textbook, and material presented in resident and case conferences.
5. Evaluation of teaching file cases to Course Director and final case presentation to the class.

Will students be expected to participate in call? ☐ YES ☒ NO
COURSE DESCRIPTION: This course is designed to provide students with an understanding of diagnostic radiology as it pertains to musculoskeletal (MSK) radiology and the management of sports-related, degenerative, rheumatologic and orthopedic oncologic disease. Students will participate in reading room readouts, lectures, case conferences/presentations, online assignments, and observation of the various imaging modalities and procedures in musculoskeletal imaging. Students will attend orthopedic tumor board. Students will spend the entire rotation in the MSK imaging reading in Rutledge Tower.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Describe the fundamental role of radiologist as consultant to referring physicians including: orthopedic surgeons, sports medicine and primary care doctors, orthopedic oncologists and rheumatologists and the value of imaging to provide timely, accurate, and actionable diagnostic information regarding patient condition. (MK5, PC2, CS4, SL2)
2. Discuss the indications and appropriateness of imaging studies for common musculoskeletal problems and utilize evidence based resources (ACR Appropriateness Criteria) to determine imaging appropriateness (MK8, SL3, PL1, PL6, PR2)
3. Describe the various imaging modalities that may be used to evaluate and diagnose MSK-related conditions and determine the most appropriate imaging modality (xray, CT, MRI or ultrasound) for clinical work-up. (MK5, PL2, SL2)
4. Describe how common procedures and imaging are performed. (MK5, CS3, PC7)
5. Apply basic interpretative skills to evaluate imaging studies including study identification and recognition of utilization. Identify various features of degenerative, traumatic, rheumatologic or oncologic pathology on imaging modalities such as xray, CT, MRI and ultrasound. (MK4, PC2, PL4)
6. Discuss the multidisciplinary collaboration toward evaluating/managing orthopedic oncologic patients. (PC4, PR1, IP2, IP3, IP4)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will participate in clinical services interacting with and observing residents, fellows, and faculty daily
2. Lectures/conferences: Resident-led lectures, faculty-led case presentations, resident conferences, Orthopedic Oncologic tumor board, and Grand Rounds
3. Three interactive labs: Hands-on ultrasound scanning with ultrasound guided vascular access, paracentesis and biopsy simulation, a 4D imaging lab, and an interactive introduction to interventional radiology tubes, lines and drains
5. Online Materials: Aquifer CORE cases, AHRQ’s Web M&M scenarios, and Radiographic Anatomy review
6. Formal presentations of Evidence Based Imaging cases including differential diagnostic considerations, appropriate imaging workup, complications, cost, and radiation dose.
7. Teaching file cases: Students will be required to complete in Horizon Study Share one teaching file case per week.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Degenerative and inflammatory arthritis (clinical presentation, laboratory and imaging work-up) of current MUSC patients.
2. Broad spectrum of pathology, acute, chronic, medical, and surgical diseases pertaining to MSK-related pathology.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
1. A Mid-point direct feedback provided and end of rotation E*Value Clinical Performance Evaluation
2. Direct observation of the student’s clinical work by the resident, fellow, and attending physicians
3. Student participation in case conferences, Evidence Based Imaging Presentation and interactive workshops.
4. Quiz performance based on online assignments, textbook, and material presented in resident and case conferences.
5. Evaluation of teaching file cases to Course Director and final case presentation to the class.

Will students be expected to participate in call? □ YES □ NO
RAD 865: Radiologic & Pathologic Correlation

Course Director: Jeanne G. Hill, MD, and Laura Spruill, MD  
E-mail: hillj@musc.edu; spruill@musc.edu

Course Coordinator: Angie Maguire  
Telephone #: (843) 792-2473  
E-mail: maguiran@musc.edu

Does this rotation accept visiting students? ☐ YES ☒ NO

COURSE DESCRIPTION:
In this elective, the student will attend a variety of clinical tumor boards, and identify and direct the collection of current clinical cases which demonstrate outstanding correlation of imaging and pathology. Case documentation will include review of patient history, physical exam findings, imaging, gross and microscopic pathology findings, diagnosis, and discussion. Cases will be uploaded by the student into an internet based teaching file to be subsequently used by medical students, residents, and faculty in the departments of radiology and pathology. At least 2 cases should include complete information and thorough discussion of the radiologic and pathologic features of a disorder/disease process suitable for submission for publication as a case report. Students are required to have previously taken a radiology selective or elective in order to enroll in this course. (This course may be able to accommodate a third student upon request if approved. Please contact the Course Coordinator to inquire.)

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Identify potential radiologic-pathologic correlation cases from hospital information systems. (PC1, PL2)
2. Identify optimal images from multiple imaging modalities displaying radiologic pathologic correlation. (MK1, MK4, MK5, MK8)
3. Describe the advantages of multidisciplinary care as demonstrated by tumor boards. (PC6, CS1, CS4, SL2, IP1, IP2, IP3, IP4)
4. Describe the pertinent imaging characteristics of a variety of pathologic disorders. (MK4, MK5, MK8)
5. Describe the gross appearance of pathologic specimens. (MK4)
6. Describe the optimal sectioning of gross specimens for radiologic pathologic correlation. (MK4, IP2)
7. Perform a focused literature search. (MK8, PC3, PL2, PL3)
8. Read and analyze scientific literature. (MK5, MK8, PL3)
9. Prepare a potentially publishable scientific case report and present to clinical colleagues. (PC1, PC2, CS1, PL3, IP3)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
2. Attendance in a broad spectrum of Tumor Boards (including Pediatric, Thoracic, Breast, GI, and Head and Neck).
3. Participation in 2 Surgical procedures and 2 Image guided procedures to obtain pathologic specimens.
5. Review of current scientific literature, with supervision, feedback, and approval.
6. After instruction in the teaching file software, development of radiologic and pathologic teaching file cases to be presented at the end of the rotation in the Radiology 851 Case of the Day Conference and Pathology Rad/Path Conference.

PATIENT ENCOUNTERS: Students will be expected to review and summarize the work-up of patients with the following specified conditions:
1. A spectrum of pathologic conditions (primarily inflammatory/infectious, autoimmune and neoplastic) in at least 7 adults and/or children who receive care at Medical University Hospitals.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
1. A Mid-point direct feedback provided and end of rotation E*Value Clinical Performance Evaluation.
2. Faculty evaluation of Teaching File Cases and Presentations.
3. Faculty evaluation of Literature Search and Case Report.

Will students be expected to participate in call? ☐ YES ☒ NO
### COURSE DESCRIPTION:

This course, a combination of online and in-person activities, is designed to provide students with a better understanding of the central role of diagnostic radiology in the evaluation and management of patients through participation in reading room readouts, online lectures, case conferences/presentations, online assignments, and observation of the various Imaging modalities and procedures while affording some flexibility for residency interviews. Students will tailor the experience to their clinical interests by selecting 3-4 subspecialties (Body, Cardiac, Chest, IR, MSK, Nuclear Medicine, Neuroradiology, Pediatrics, and Ultrasound). If 4 subspecialties are selected, the student will spend 3 days in each; if 3 subspecialties are selected, the student will spend 4 days in each. **Students may NOT enroll in both this course and RAD 851 during their fourth year.**

### LEARNING GOALS & OBJECTIVES:

At the completion of this clinical rotation students should be able to do the following:

1. Describe the fundamental role of the radiologist as consultant and the value of imaging to provide timely, accurate, and actionable diagnostic information regarding a patient’s medical condition. (MK5, MK8, IP1, IP2, IP3, SL2)
2. Discuss the indications and appropriateness of imaging studies for common clinical problems and utilize evidence-based resources (ACR Appropriateness Criteria) to determine imaging appropriateness for less common clinical problems. (MK5, MK8, PC3, PL3)
3. Describe the risks of medical imaging: radiation induced cancer, contrast nephropathy, contrast reactions, and MRI safety. (MK5, MK8, PC6)
4. Describe how common procedures and imaging are performed. (MK5, PC1)
5. Apply basic interpretive skills to evaluate imaging studies (plain films and CT), including study identification, recognition of normal radiographic and cross-sectional anatomy, and common, potentially life-threatening pathology. (MK1, MK3, PC1, PC2)

### INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:

Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:

1. Clinical exposure: Students will participate in clinical services interacting with and observing residents and faculty at least 12 days of their 4 week rotation, 2 of which **MUST** be the first and last days of the rotation.
2. Online Aquifer CORE Cases and lectures
3. Conferences: Faculty-led case presentations, multidisciplinary conferences such as Tumor Board
4. Reading assignments: Each student will receive a copy of Herring’s *Learning Radiology*, Goodman’s *Felson’s Principles of Chest Roentgenology* and accompanying web resources
5. Online materials: Additionally, AHRQ’s Web M&M scenarios, and Radiographic Anatomy review
6. Completion of online assignment in which students will assess clinical scenarios and answer questions about differential diagnostic considerations, appropriate imaging workup according to the ACR Appropriateness Criteria, potential complications, cost, and relative radiation dose of the workup.

### PATIENT ENCOUNTERS:

Students will be expected to work-up patients with these specified conditions:

1. Normal and abnormal imaging studies and procedures on current MUSC patients
2. Broad spectrum of pathology, acute, chronic, medical, and surgical diseases in patients of all ages

### EVALUATION / FEEDBACK METHODS:

Students will be evaluated using the following methods.

2. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.
3. Performance in case conferences presentation.
4. CORE case completion.
5. Performance on Appropriate Imaging online assignment.
6. Performance on a pre- and post-test based on CORE cases, online assignments, textbook, and material presented in lectures and case conferences.

### Will students be expected to participate in call? □ YES ☒ NO
Does this rotation accept visiting students? ☒ YES ☐ NO

COURSE DESCRIPTION:
This elective is primarily for students with an interest in some aspect of oncology and often specifically in the field of radiation oncology. Most will have completed the third-year selective (although it is not a requirement) and be prepared to interact with the physician team, patients, and other personnel. Students should have a solid foundation in oncology and be quite familiar with oncologic care. The students will take on key roles in patient management and frequently be involved in independent research projects. They will be required to do an oral presentation on either their own research projects or some other interesting topic in radiation oncology. While the goals and objectives of this course are similar to those of the third-year selective, the expectations for proficiency are much higher.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Explain when radiation would be part of the management of a patient with cancer. (MK3, PC1)
2. Interact professionally with other physicians and members of the treatment team. (CS1, PR2)
3. Demonstrate knowledge of complex treatment planning using virtual reality treatment planning computers. (PL2, SL2)
4. Demonstrate ability to examine a variety of adult and pediatric cases with an emphasis on CNS, Breast, Prostate, Lung, Gyn, Head/Neck and GI cancers. These examinations will entail fiber optic scopes and other sophisticated means of examination. (PL4, CS4)
5. Formulate a treatment plan of care. (MK8, CS3)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Attend and participate in multidisciplinary tumor boards in which case management with other specialists will be discussed.
2. Attend and participate in daily didactic sessions regarding cancer management, radiobiology, and radiation physics.
3. One-on-one work with attending and resident physicians on patient management teams. Students will be responsible for gathering information on patients and reviewing pertinent literature regarding patients and their diseases.
4. Attend and participate in multi-disciplinary tumor boards in which case management decisions are made. Students should be prepared to discuss current literature including relevant clinical trials and evidence-based medicine.
5. Give a brief presentation during conference on a topic related to cancer.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Breast cancer
2. Lung cancer
3. Prostate cancer
4. Pediatric cancer
5. Head and neck cancer
6. Brain tumor

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation of clinical and patient care skills by attendings and residents.
3. Final discussion with the departmental chair or his representatives to assess the learning objectives.
4. A mid-point evaluation form will be completed halfway through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☐ YES ☒ NO
Does this rotation accept visiting students? ☑ YES ☐ NO

COURSE DESCRIPTION:
This course provides in-depth exposure to patients undergoing surgery for acquired cardiac disease. The student will be an integral part of the team that includes general surgery and cardiothoracic surgery residents, cardiac surgery attendings, and midlevel providers. The student will work with the entire staff and will receive extensive exposure to patients in the operating room, cardiothoracic intensive care unit, and on the floor, as well as in the outpatient clinic.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Discuss the basic preoperative evaluation of patients with surgically correctable cardiac disease. (PC1, PC3, MK4)
3. Discuss the postoperative management of patients undergoing cardiac surgery. (PC1, PC3, MK4)
4. Describe the common complications experienced by patients undergoing cardiac surgery. (PC1, PC2, PC3, MK3, MK4, MK5)
5. Describe the purpose and basic functional principles of the “heart lung machine.” (MK5, PL2)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Direct patient care in the clinics, on the floors, and assisting in the operating room.
4. Active participation in surgical procedures, rounds, and clinics with assigned attendings.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Coronary Artery Disease
2. Cardiac Valvular Disease
3. Congestive Heart Failure

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods.
2. Direct observation of student performance.
3. Students will receive feedback about performance at the midpoint of the course.

Will students be expected to participate in call? ☑ YES ☐ NO
**COURSE DESCRIPTION:**
Students will participate in the Night Emergency Surgery Service as members of the night float team. This service evaluates and treats a significant volume of trauma patients, as well as performs emergency consultations and acute care surgery operative procedures. This service is recommended for students interested in general surgery, as well as students interested in emergency medicine and primary care specialties.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Discuss the basic principles of trauma patient evaluation and resuscitation. (MK3, PC1, PC2, PC3, PC4, PC6, CS1, CS4)
2. Identify trauma patients who need emergent surgical intervention. (MK3, PC4)
3. Accurately assess and develop a differential diagnosis for patients with acute abdominal pain and other urgent surgical conditions. (MK3, PC2, CS1, CS4)
4. Discuss management of acute surgical emergencies and other conditions requiring urgent management in pediatric surgical patients. (MK3, PC2, CS1, CS4)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Assist in evaluation and resuscitation of trauma patients presenting during the “night float service” hours.
2. Assist the mid-level and chief surgical residents in evaluation of patients for whom a surgical consultation has been requested in the emergency room as well as in other MUH inpatient units.
3. Assist with operative procedures on trauma and general surgery patients during the “night float service” hours.
4. Follow the schedule of the interns assigned to the “night emergency trauma service” rotation. (Sunday 7 pm until 6 am Monday, then 6 pm to 6 am Monday through Friday nights. Rotation starts on first Monday and ends on last Friday morning after call.)

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Multi-system trauma
2. Traumatic Brain Injury
3. Penetrating trauma
4. Patient with an acute abdomen

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation of student performance.
3. Students will receive feedback about performance at the midpoint of the course.

Will students be expected to participate in call? ☒ YES □ NO
Rotation takes place on weeknights as well as Sunday nights during the rotation consistent with the “night emergency trauma service” rotation. Students will be off during daytime hours.
SURG 833: General Thoracic Surgery ASE

**Course Director:** Chad Denlinger, MD  
Email: denlinge@musc.edu  
**Course Coordinator:** Zera Reveral  
Telephone #: 843-792-2720  
Email: reveral@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>1</td>
<td>Block 3</td>
<td>1</td>
<td>Block 5</td>
<td>1</td>
<td>Block 7</td>
<td>1</td>
<td>Block 9</td>
<td>1</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
<td>Block 9A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
<td>Block 9B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>1</td>
<td>Block 4</td>
<td>1</td>
<td>Block 6</td>
<td>1</td>
<td>Block 8</td>
<td>1</td>
<td>Block 10</td>
<td>1</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
<td>Block 10A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
<td>Block 10B</td>
<td></td>
</tr>
</tbody>
</table>

**Does this rotation accept visiting students?**  
☑ YES ☐ NO

**COURSE DESCRIPTION:**  
This course provides in-depth exposure to patients with diseases of the chest, including lungs, esophagus, and mediastinum. The student will be an integral part of the team that includes general surgery and cardiothoracic surgery residents, thoracic surgery attendings, and mid-level providers. The student will be assigned to the general thoracic attendings but will work with the entire staff and will receive extensive exposure to patients in the operating room, cardiothoracic intensive care unit, and on the floor, as well as in the outpatient clinic at Hollings Cancer Center.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:  
1. Describe how to evaluate patients with diseases of the lung, esophagus, mediastinum and chest wall. (MK4, PC1, PC3)  
2. Stage cancer of the lung and esophagus. (MK4)  
3. Demonstrate the work up/admission of patients undergoing thoracic surgery. (PC1, PC3, CS1, CS2)  
4. Discuss the role of surgery in management of patient’s with thoracic disease. (PC3, CS1)  
5. Identify and institute management of post-op complications from thoracic surgery. (PC1, PC2, PC3, MK3, MK4, MK5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:  
1. Daily rounds.  
2. Participation in OR.  
3. Participation in outpatient clinics.  
4. Thoracic conferences.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:  
1. Lung cancer  
2. Esophageal cancer  
3. Benign esophageal disease  
4. Pleural space problems  
5. Lung transplantation

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:  
2. Direct observation of student performance.  
3. Students will receive feedback about performance at the midpoint of the course.

**Will students be expected to participate in call?**  
☐ YES ☑ NO
Does this rotation accept visiting students? YES NO

COURSE DESCRIPTION:
Students will serve as members of the patient care team for patients on the pediatric surgical service interacting with the attendings and residents from the pediatric surgical service on a daily basis. Students will participate in outpatient clinics, the operating room, and rounds with residents and attending surgeons. Students will also participate in the management of inpatient consults and assessment of pediatric burn/trauma patients.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Discuss pre-/post-op pediatric surgical care and fluid management, the principles of pediatric burn care, and basic surgical techniques. (MK6, PC3, PR3, PL5)
3. Describe the evaluation and management of common pediatric surgical problems (inpatient and outpatient). (MK3, PC1, PL1, SL5)
4. Discuss the initial assessment of the pediatric trauma patient and perform this assessment in patients with less severe injuries. (MK3, PC1, PL1)
5. Discuss the management of neonates with congenital anomalies. (MK4, PC3, PL3)
6. Identify and discuss management of acute pediatric surgical emergencies including the child with an acute abdomen and life threatening emergencies. (MK6, PC2, PL3)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Direct patient care in the clinics, on the floors, and assisting in the operating room.
3. Attend weekly Department of Surgery M and M conferences and Grand Rounds.
4. Prepare and present cases at weekly pediatric surgery service conferences (radiology conference, etc).

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Congenital anomaly (ex- congenital diaphragmatic hernia, malrotation, esophageal atresia with trachea-esophageal fistula)
2. Acute abdomen
3. Pediatric trauma
4. Pediatric patient with burns
5. Acute pediatric surgical emergency

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation of student performance.
3. Students will receive feedback about performance at the midpoint of the course.

Will students be expected to participate in call? YES NO
Taking call is expected. Students may take call from home and participate in after-hours pediatric surgical operative cases or spend time in-house working with the night emergency trauma service.
Does this rotation accept visiting students? ☒ YES ☐ NO

**COURSE DESCRIPTION:**
Students will participate in plastic surgery patient care in both the inpatient and outpatient settings with the faculty and residents of the Division of Plastic Surgery. The student's daily activities will be assigned by the academic chief plastic surgery resident and will include activities such as plastic surgery didactic cases and visiting professor conferences, as well as inpatient and ambulatory patient care. Students will be involved in operative cases on a daily basis with exposure to all aspects of reconstructive and cosmetic surgery.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Evaluate patients with common problems treated by plastic surgeons and discuss the various conditions and pathologies that plastic surgeons treat. (MK2, MK4, PC1, PC3)
3. Perform basic wound evaluation and closure techniques. (PC1, PC7)
4. Discuss basic wound healing and steps that can be taken to maximize healing and reduce scar formation and demonstrate core knowledge in normal and abnormal wound healing, wound care, wound closure, and scar evaluation. (MK1, MK3)
5. Outline preoperative and operative plan for patients undergoing breast surgery, hand surgery, and oncologic reconstruction. (MK5, PC3)
6. Demonstrate familiarity with the "reconstructive ladder" and its application to patients undergoing reconstruction of soft tissue defects. (PC3)
7. Discuss the role of nutrition in surgical management and steps taken to maximize overall healing. (MK2, MK5, PC3)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Intraoperative teaching of wound closure techniques.
3. Direct patient care in the clinics, inpatient floors, and assisting in the operating room.
5. Student will give a brief 10-minute presentation at the end of the rotation on a topic provided by the course director.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Breast reconstruction
2. Surgical oncology related reconstruction
3. Hand surgery

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Patient-based presentation to count for 25% of grade.
3. Direct observation of student performance.
4. Students will receive feedback about performance at the midpoint of the course.

Will students be expected to participate in call? ☐ YES ☒ NO
COURSE DESCRIPTION:
Students will be assigned to serve as externs in the surgical intensive care unit and will be the primary care provider for assigned patients. Very close supervision will be provided by the surgery residents assigned to the unit. Daily teaching rounds are given by attending surgeons who are board certified in critical care. Students will become familiar with the basics of mechanical ventilation, intravenous fluids, shock and vasoactive medications, surgical emergencies, procedural indications and end-of-life care issues in the ICU. Students will observe and potentially perform invasive procedures.

Students will participate in a mandatory orientation day to cover essential critical care subject matter. Participation is expected at all simulation-based procedural skills modules unless absence is excused. Students will be expected to work at least 20 shifts. Make-up dates for unexcused absences will take place the final weekend of the rotation and then at the discretion of the unit director. There is no expectation of night call, but it can be offered by the unit director as an integral learning experience or as make-up for unexcused absences. This rotation is recommended for students with an interest in anesthesia or in any surgical field including ENT, orthopedics.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation, students should be able to do the following:
1. Assess a critically ill patient and develop a timely, prioritized, and evidence-based plan for initial stabilization. (PC1, PC3)
2. Apply knowledge to develop evidence-based clinical plans for critically ill patients, including appropriate use of hemodynamic monitoring, application of ventilator modes and settings, and initiation and titration of vasomotor support. (MK4, MK5, PC3, PC6)
3. Participate in obtaining Informed Consent for diagnostic and therapeutic tests and procedures including verbalization of risks, benefits and alternatives. (PC3, PC7, ICS1, SBP3)
4. Participate in and potentially perform procedures under direct supervision, including placement of arterial lines and central venous catheters while learning proper sterile technique. (MK8, PC7)
5. Identify relevant information in the primary medical literature regarding their patients’ disease states, and incorporate information from the literature into presentations and documentation. (PL3, CS5)
6. Demonstrate effective and professional interpersonal and communication skills, and model ethical behavior. (CS1, PR1, PR2)
7. Demonstrate empathy and discuss end of life issues with the patient and family including giving bad news. (PC1, PC3, CS1, CS2, CS3, PR3, PR1, PR2)
8. Perform a basic family meeting to discuss goals of care including discussing and obtaining code status. (PC1, PC4, CS1, CS2, CS3, CS4, PR1, PR2, PR3)
9. Work within a multidisciplinary team on daily rounds as an effective team member including mitigating patient risk and early identification of potential medical errors. (PR1, SL4, IP2, IP3, IP4)
10. Understand quality improvement metrics in the ICU and the team’s role in reducing hospital acquired infections including VAP, CAUTI, CLASBI, etc. (MK7, PR4, PL4, PL5, PL6, SL3, IP4)
11. Concisely summarize a patient’s critical illness and hand off important clinical information efficiently to other team members and consultants. (CS1, CS5, IP1, IP2, IP3, PC6)
12. Demonstrate an understanding of the pharmacology of sedation in the ICU including the prevention and treatment of pain, agitation and delirium (MK2, MK3, MK4, MK5, PC3, PL4)
13. Demonstrate a knowledge of airway management devices including high flow nasal cannula, NIV, BVM, LMA and endotracheal intubation as well as define parameters for extubation. (MK1, MK4, MK8, PC6, PC7, CS1, CS2, PR3, PL2)
14. Demonstrate familiarity with the management of Traumatic Brain Injury and the multi-system injured trauma patient. (PC3)
15. Write complete and succinct systems based medical plan with H&Ps and daily progress notes in EPIC. (MK3, MK4, MK5, PC2, PC3, PC6, CS1, CS5, PR1, PR4, PR5)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Students will participate in all aspects of care including initial assessment, diagnosis, management and patient/family communication and decision making for critically ill patients.
2. Students will be expected to present their patients on rounds, and patient-centered clinical and educational topics will be discussed.
3. Students will receive instruction in ventilator management, central line use, and invasive and non-invasive hemodynamic monitoring.
4. Students will learn about pharmacotherapy in the ICU, including vasopressors, antibiotics, and sedatives, and analgesic medications.
5. Students will have the opportunity to learn about and potentially perform a variety of procedures, including central venous catheter placement, arterial catheter placement, paracentesis, and thoracentesis.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with conditions from all organ systems, including:
1. Acute hypoxic/hypercarbic respiratory failure
2. Shock
3. Traumatic Brain Injury
4. Multisystem Injured Trauma patient
5. Acute surgical emergencies
6. SIRS and Multi-organ system failure

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
1. E*Value Clinical Performance Evaluation
2. Direct observation of patient care skills by the attending physician, fellows, and residents on service.
3. Attending physicians and fellows will provide students with a verbal evaluation at end of rotation.
4. Students will give their attending a mid-point evaluation form for performance assessment.
SURG 837: Surgical Oncology Externship ASE

**Course Director:** E. Ramsay Camp, MD  
Email: campe@musc.edu

**Course Coordinator:** Zera Reveral  
Telephone #: 843-792-2720  
Email: reveral@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>2</td>
<td>Block 3</td>
<td>2</td>
<td>Block 5</td>
<td>2</td>
<td>Block 7</td>
<td>2</td>
</tr>
<tr>
<td>Block 1A</td>
<td>Block 3A</td>
<td>Block 5A</td>
<td>Block 7A</td>
<td>Block 9A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td>Block 3B</td>
<td>Block 5B</td>
<td>Block 7B</td>
<td>Block 9B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>2</td>
<td>Block 4</td>
<td>2</td>
<td>Block 6</td>
<td>2</td>
<td>Block 8</td>
<td>2</td>
</tr>
<tr>
<td>Block 2A</td>
<td>Block 4A</td>
<td>Block 6A</td>
<td>Block 8A</td>
<td>Block 10A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td>Block 4B</td>
<td>Block 6B</td>
<td>Block 8B</td>
<td>Block 10B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Does this rotation accept visiting students?** ☒ YES ☐ NO

**Course Description:**
Students on the surgical oncology rotation will participate in the ambulatory and inpatient surgical care of patients with breast, endocrine, skin, soft tissue, and GI tumors. Students will be exposed to the multidisciplinary approach to patient care through tumor board conferences and clinics. Students will be orientated to the service by the course director who will also provide verbal feedback midway through the rotation.

**Learning Goals & Objectives:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Identify the basic steps and anatomy for several surgical oncology and endocrine procedures. (MK1, MK3, PC2)
3. Provide a concise presentation of patients on inpatient rounds and begin to develop an appropriate assessment and care plans and recognize postoperative surgical complications and appreciate changes in management required to address these complications. (MK8, PC2, PC3, PR1, CS1, CS2, PL2, IP2, IP3)
4. Describe inpatient responsibilities (including but not limited to: reviewing orders, following up on lab and test results, assessing patients, admitting patients, seeing consults, calling consults, performing bedside procedures) and Participate in the evaluation of patients in outpatient clinics. (MK5, PC1, PR1, PC6, PC7, CS1, CS2, CS5)
5. Identify an area of clinical knowledge deficiency, conduct a literature search, and summarize the results for the surgical oncology attending and resident. (MK2, MK3, CS1)
6. Describe the multidisciplinary approach to the treatment of surgical oncology patients and develop a basic understanding of non-surgical (adjuvant) therapies. (MK1, MK3, PL5)
7. Communicate effectively with oncology patients, families, colleagues, and the public through the use of active listening and appropriate verbal, nonverbal and written skills. (CS1, CS2, SL1, PD2)

**Instructional Methodologies and Rotation Activities:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Participation in operative cases with residents, fellows, and attendings.
3. Participation in inpatient rounds and outpatient clinic.
4. Participation in service resident/student teaching session.
5. Participation in service resident/student teaching session.

**Patient Encounters:** Students will be expected to work-up patients with these specified conditions:
1. Breast: benign breast disease, high risk and breast cancer patients
2. Endocrine: thyroid and parathyroid cancer, hyperparathyroidism
3. Gastrointestinal malignancies including pancreatic, colorectal and gastric cancer
4. Melanoma

**Evaluation / Feedback Methods:** Students will be evaluated using the following methods:
2. Direct observation of student performance.
3. Students will receive feedback about performance at the midpoint of the course.

**Will students be expected to participate in call?** ☐ YES ☒ NO
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:** Students will participate in all aspects of patient care in the inpatient and outpatient setting, including on rounds, in the clinics, and in the operating room. Students will be exposed to all aspects of the complex medical and surgical care of patients with end organ failure. This course is recommended for students interested in surgery, nephrology, hepatology, internal medicine, or other primary care specialties.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Formulate a medically suitable daily plan for their patients. (MK5, PC3)
3. Accurately and succinctly present the critical elements of their patients’ course on rounds. (PC3, CS1)
4. Articulate some of the medical and surgical issues that are specific to transplant patients. (MK3)
5. Articulate a basic understanding of the approach to general surgical issues. (MK5)
6. Articulate a basic understanding of the medical management of complicated general surgical patients. (MK5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Participation in multi-disciplinary rounds with residents, fellows, and attendings.
3. Participation in solid organ transplant cases (primarily liver and kidney).
4. Participation in the daily management, medical, and surgical care of the service inpatients.
5. Participation in the outpatient evaluation and management of transplant patients.
6. Participation in organ procurement (“donor runs”).
7. Participation in recipient selection meeting.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. ESRD (renal failure)
2. Cirrhosis (chronic liver failure) and fulminant hepatic failure (acute liver failure)
3. Diabetes (pancreatic endocrine failure)
4. Patients on dialysis with vascular access issues
5. Primary liver cancers

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation of student performance.
3. Students will receive feedback about performance at the midpoint of the course.

Will students be expected to participate in call? ☑ YES ☐ NO
Students can expect to participate in transplantation activities as organs become available.
SURG 839: Trauma & Acute Care Surgery Externship ASE

**Course Director:** Alicia Privette, MD  
Email: privetta@musc.edu  

**Course Coordinator:** Zera Reveral  
Telephone #: 843-792-2720  
Email: reveral@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>2</td>
<td>Block 3</td>
<td>2</td>
<td>Block 5</td>
<td>2</td>
<td>Block 7</td>
<td>2</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>2</td>
<td>Block 4</td>
<td>2</td>
<td>Block 6</td>
<td>2</td>
<td>Block 8</td>
<td>2</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
Students will serve as externs on the Trauma and Acute Care Surgery service. They will be assigned to patients and will be expected to be their primary caregivers, with supervision by the resident staff and attending surgeons. Students will be expected to participate in the daily delivery of care to the Acute Care Surgery patients, as well as the surgical clinics where new patients are evaluated and recently discharged patients are seen for follow up. This rotation is recommended for students interested in primary care, emergency medicine, general surgery, and any surgical subspecialty (neurosurgery, orthopedic surgery, ENT, urology, plastic surgery).

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Demonstrate a basic understanding of Advanced Trauma Life Support (ATLS) and how it is applied in the emergency room setting. (MK4, MK5, CS3, CS4, CS5)
3. Delineate the work up and treatment of common surgical conditions. (MK1, MK2, MK3, MK4, MK5, PC1, PC2, PC3, PL3)
4. Develop comprehensive and coherent patient presentations. (PR4, PR5, CS1, CS4, CS5, PL3)
5. Discuss the treatment algorithms for blunt and penetrating abdominal trauma and common complications. (MK4, MK5, PC2, PC3, PC4, PC5)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Be an active team member during trauma resuscitations.
3. Be involved in the work up of surgical consultations.
4. Participate in daily patient rounds by following and presenting specific patients.
5. Attend divisional educational activities such as Trauma Radiology Conference, Joint Trauma/Neurosurgery Conference, and Trauma/Emergency Medicine Case Review Conference.
6. Be actively involved in the operative management of the patients on the service.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Blunt thoracic and abdominal trauma
2. Penetrating thoracic and abdominal trauma
3. Abdominal pain
4. Patients with non-traumatic acute surgical conditions.
5. Traumatic brain injury
6. Extremity and pelvic trauma

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
1. E*Value Clinical Performance Evaluation
2. Direct observation of student performance
3. Students will receive feedback about performance at the midpoint of the course.

Will students be expected to participate in call? ☑ YES ☐ NO
Does this rotation accept visiting students? ☑ YES ☐ NO

COURSE DESCRIPTION:
This externship offers students the opportunity to function as a member of the team and be responsible for many of the duties of an intern under the direct guidance and supervision of house staff and attending staff. The student will be assigned to the vascular service at Ashley River Tower. In addition, if a student manifests a high level of interest in vascular surgery and communicates with the coordinator well in advance of the rotation, 3-5 days of the rotation may be arranged to interact primarily with MUSC clinical faculty at Roper Hospital. This course is designed primarily for students interested in surgery who are considering training in a vascular surgery residency.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Describe basics of wound care, diabetic foot ulcer evaluation and management, and the role of a vascular laboratory. (MK3, PC3)
3. Perform a basic history and physical examination on a patient with peripheral vascular disease. (PC1, MK1)
4. Interpret basic vascular laboratory lab results. (CS4, MK5)
5. Discuss the role of endovascular techniques in the diagnosis and treatment of peripheral vascular disease. (MK6, PL2)
6. Discuss the role for medical management versus intervention for common peripheral vascular pathologies. (SL1, PC2)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Interaction with patients and staff in the inpatient and outpatient setting for direct bedside teaching.
3. Conference presentations and participation.
4. Participation in the operating room, bedside procedures, and review of images with housestaff and attendings.
5. Self-study and completion of assigned reading in texts and journal articles.
6. At least one day a week will be spent in the operating room where familiarity with underlying pathophysiology, anatomy, and basic surgical principles will be expected.
7. Students will participate in endovascular procedures for the treatment of peripheral vascular disease.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Aortic aneurysm disease
2. Carotid artery disease
3. Lower extremity peripheral vascular disease, including claudication and limb-threatening ischemia
4. Venous thromboembolic disease

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. Direct observation of student performance.
3. Students will receive feedback about performance at the midpoint of the course.
4. Degree of participation in and response to questions in conferences, the operating room, and outpatient settings.
5. Quality of presentations in conferences.

Will students be expected to participate in call? ☑ YES ☐ NO
Students will take call 2-3 times during the rotation to increase exposure to vascular surgery emergencies.
SURG 841: Community Surgery ASE

Course Director: E. Douglas Norcross, MD  
Email: norcroed@musc.edu

Course Coordinator: Zera Reveral  
Telephone #: 843-792-2720  
Email: reveral@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>6</td>
<td>Block 3</td>
<td>6</td>
<td>Block 5</td>
<td>6</td>
<td>Block 7</td>
<td>6</td>
</tr>
<tr>
<td>Block 1A</td>
<td></td>
<td>Block 3A</td>
<td></td>
<td>Block 5A</td>
<td></td>
<td>Block 7A</td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td></td>
<td>Block 3B</td>
<td></td>
<td>Block 5B</td>
<td></td>
<td>Block 7B</td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>6</td>
<td>Block 4</td>
<td>6</td>
<td>Block 6</td>
<td>6</td>
<td>Block 8</td>
<td>6</td>
</tr>
<tr>
<td>Block 2A</td>
<td></td>
<td>Block 4A</td>
<td></td>
<td>Block 6A</td>
<td></td>
<td>Block 8A</td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td></td>
<td>Block 4B</td>
<td></td>
<td>Block 6B</td>
<td></td>
<td>Block 8B</td>
<td></td>
</tr>
<tr>
<td>Block 9</td>
<td>6</td>
<td>Block 10</td>
<td>6</td>
<td>Block 9A</td>
<td></td>
<td>Block 10A</td>
<td></td>
</tr>
</tbody>
</table>

Does this rotation accept visiting students? ☐ YES ☒ NO

COURSE DESCRIPTION:
Students will work one on one with a local community surgeon participating in their clinical practices in both the office and the operating room. This course is recommended for students interested in primary care fields or emergency medicine. Student experience will vary based on the particular surgical practice to which they are assigned. Note: This course is not based at MUSC. Students must supply required credentialing information in advance of the rotation to be allowed to participate in care at non-MUSC facilities.

LEARNING GOALS & OBJECTIVES: At the completion of this clinical rotation students should be able to do the following:
1. Discuss common general surgical problems. (MK3, MK4, MK5)
2. Assist with basic general surgery procedures at a novice level. (PC7)
3. Describe the role of the general surgeon in a community hospital. (PR4, PR5, SL1, SL3)

INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES: Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Rounds with attending community surgeons.
2. Assisting attending community surgeons in the operating room.
3. Accompanying attending community surgeons in the office/clinic setting.

PATIENT ENCOUNTERS: Students will be expected to work-up patients with these specified conditions:
1. Patients requiring basic general surgical care and procedures.

EVALUATION / FEEDBACK METHODS: Students will be evaluated using the following methods:
2. A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance.

Will students be expected to participate in call? ☒ YES ☐ NO

Variable home call depending upon assigned preceptor.
Does this rotation accept visiting students? ☑ YES ☐ NO

**COURSE DESCRIPTION:**
Students will serve as externs on one of the areas of GI Surgery covered by attending surgeons in the Section of GI surgery. Students will be given the choice of participation on the Bariatric Colorectal Service and/or the Pancreatic Biliary Service to include inpatient care as well as pre- and post-operative care in the surgery clinics. Strongly recommended for students interested in general surgery as well as for students interested in primary care, geriatrics, and internal medicine.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Perform an accurate history and physical examination of the surgical patient. (MK4, PC1)
3. Discuss operating room decorum and roles of assistant surgeon. (PR1, CS1, IP1, IP2, IP3, IP4)
4. Demonstrate ability to present patients on rounds. (CS1, CS3)
5. Communicate effectively with patients, nurses, and physicians. (PR1, CS1, IP1, IP2, IP3, IP4)
6. Describe the important role of intern in team patient care. (PR1, CS1, IP1, IP2, IP3, IP4)

**INSTRUCTIONAL METHODOLOGIES AND ROTATION ACTIVITIES:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Direct patient care in the clinics, on the floors, and assisting in the operating room.
3. Weekly Department of Surgery M and M conferences and Grand Rounds.
4. Students will be responsible for supervised care of 2-6 inpatients on either the Bariatric Colorectal Service or the Pancreatic Biliary Service.

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Enterocutaneous fistula
2. Acute pancreatitis
3. Chronic pancreatitis
4. Morbid obesity
5. Diverticulitis
6. Gastroesophageal reflux disease
7. Inguinal and abdominal wall hernias
8. Pancreatic cancer
9. Symptomatic cholelithiasis

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods:
2. Direct observation of student performance.
3. Students will receive feedback about performance at the midpoint of the course.

Will students be expected to participate in call? ☐ YES ☑ NO
UROL 853: Urology Externship ASE

**Course Director:** Marc J. Rogers, MD  
Email: rogermar@musc.edu  

**Course Coordinator:** Lisa Kynoski  
Telephone #: 843-792-4538  
Email: kynoski@musc.edu

<table>
<thead>
<tr>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
<th>BLOCK</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1</td>
<td>4</td>
<td>Block 3</td>
<td>4</td>
<td>Block 5</td>
<td>0</td>
<td>Block 7</td>
<td>2</td>
</tr>
<tr>
<td>Block 1A</td>
<td>Block 3A</td>
<td>Block 5A</td>
<td>Block 7A</td>
<td>Block 9A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 1B</td>
<td>Block 3B</td>
<td>Block 5B</td>
<td>Block 7B</td>
<td>Block 9B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2</td>
<td>4</td>
<td>Block 4</td>
<td>4</td>
<td>Block 6</td>
<td>2</td>
<td>Block 8</td>
<td>2</td>
</tr>
<tr>
<td>Block 2A</td>
<td>Block 4A</td>
<td>Block 6A</td>
<td>Block 8A</td>
<td>Block 10A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2B</td>
<td>Block 4B</td>
<td>Block 6B</td>
<td>Block 8B</td>
<td>Block 10B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Does this rotation accept visiting students? ☑ YES ☐ NO*

**Course Description:**
This course is for students considering urology as a career. Students will rotate in both inpatient and outpatient clinical areas at MUSC and the VA hospital, managing complex urologic conditions and providing a detailed look at what a career in urologic surgery will entail. Service guidelines will be emailed two weeks before the actual rotation begins. Students must receive approval from the course director to enroll in blocks 1-4, which are reserved for students choosing Urology as their specialty.

**Learning Goals & Objectives:** At the completion of this clinical rotation students should be able to do the following:
1. Demonstrate skills expected of interns including giving and receiving a handoff, writing inpatient orders for signature, preparing a discharge summary to share, calling a consult, and assisting in obtaining informed consent for a procedure or treatment. (PC4, PC5, PC7, CS1)
2. Describe relevant anatomy and perform a genitourinary exam on adult and pediatric patients, male and female. (PC1, MK1)
3. Explain the natural history, diagnosis, and treatment of common urologic disorders, including nephrolithiasis, hematuria, acute scrotum, incontinence, UTI, ED, BPH, and genitourinary cancers. (PC1, MK4, MK5)
4. Complete uroradiology content at [www.auanet.org](http://www.auanet.org) and demonstrate familiarity with imaging techniques in urology (cystography, nuclear medicine, renal US, CT) and an understanding of the interpretation of these studies. (MK1, MK4, MK5)
5. Identify the indications for endoscopic, laparoscopic, robotic and open surgical approaches for adults and children. (MK8, PC2)
6. Describe pre-, intra-, and post-operative management of general, oncologic, and reconstructive urologic patients. (MK2, MK3, MK4)
7. Demonstrate basic surgical skills of a urologist, including catheterization, suturing, physical exam skills, endoscopy, laparoscopy, robotics and open surgery through simulation training and clinical practice. (PD1, PL2, MK5)

**Instructional Methodologies and Rotation Activities:** Students on this rotation will be expected to learn and achieve the educational goals and objectives through the following methodologies and activities:
1. Complete an Externship Log documenting level of participation in key entrustable professional activities.
2. Participation in morning and evening inpatient rounds/discussions.
3. Following inpatient census of 1-3 patients (postop or admissions from the ER) and assisting with 1-3 consults per week.
4. Attendance/participation in all urological conferences (including journal club) and 15-minute Grand Rounds presentation given to the department on a subject encountered during the rotation.
5. Completion of 4th year Urology Selective Skills Checklist submitted to the coordinator at the conclusion of the rotation.
6. Meeting with course director at the start of rotation, as a group, and individually prior to conclusion of rotation (student must arrange meeting through the coordinator).

**Patient Encounters:** Students will be expected to work-up patients with these specified conditions:
1. Prostate/Bladder/Kidney Cancer
2. Voiding Dysfunction/Incontinence/BPH/Hematuria/ED
3. Nephrolithiasis/Acute Scrotum

**Evaluation / Feedback Methods:** Students will be evaluated using the following methods:
2. Direct observation of clinical and patient care skills by the chief resident and attending urologist
3. Conference discussions and Grand Rounds presentation. (MK, CS)
4. Successful completion of skills checklist, and core curriculum content located at [www.auanet.org](http://www.auanet.org).
5. A mid-point evaluation will be completed halfway through the rotation in order for the student to be assessed on their performance.

*Will students be expected to participate in call? ☐ YES ☑ NO*