ANES 860: Anesthesiology & Perioperative Medicine

**Course Director:** Michelle Rovner, MD  
Email: rovner@musc.edu

**Course Coordinator:** Kelly Landers  
Telephone #: 843-792-4316  
Email: landers@musc.edu

### BLOCKS AND DATES

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Does this rotation accept visiting students?  ☒ YES ☐ NO

### COURSE DESCRIPTION:

Only students seeking a residency in Anesthesia are allowed to schedule a rotation prior to January. The course is an introduction to general anesthesia management and encompasses 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.

### 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 (MK)
2. Start an intravenous line and have been guided through the process of intubations, place LMAs (laryngeal mask airways), start an arterial line, and central venous access (PC)
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 (MK)
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 (MK)

### 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 these specified conditions:

1. Patients with cardiovascular disease undergoing surgery
2. Patients undergoing labor epidural or c-section
3. Patients undergoing surgery related to trauma

### EVALUATION / FEEDBACK METHODS:

Students will be evaluated using the following methods:

1. E*Value Clinical Performance Evaluation (PC, PR, MK, CS, SL, PL)
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 (PC, MK)
3. An oral presentation on a patient, including medical problems, type of surgery, anesthesia, and other interesting issues (MK)
4. Mid-Point Feedback - A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance (MK, PC, PR, CS, SL, PL).

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 Director:** Horst Rieke, MD  
Email: riekeh@musc.edu  

**Course Coordinator:** Kelly Landers  
Telephone #: 843-792-4316  
Email: landers@musc.edu

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Does this rotation accept visiting students? ☒ YES ☐ NO

**COURSE DESCRIPTION:**
This critical care rotation in the combined medical-surgical MSICU will challenge the fourth-year medical student with managing complex patients with a wide variety of medical and surgical problems.

**LEARNING GOALS & OBJECTIVES:** At the completion of this clinical rotation students should be able to do the following:
1. Manage, with supervision, a patient with a common critical illness as part of a multidisciplinary team (PC)
2. Understand and explain the physiology, pharmacology, and pathophysiology related to the management of critically ill patients (MK)
3. Interpret a variety of invasive and noninvasive monitoring, imaging, and laboratory data necessary to manage critically ill patients (MK)

**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 examining and evaluating admitted patients
2. Daily rounding on ICU patients and presentation of patient condition during morning attending/teaching rounds
3. Frequent/continuous reevaluation of patients according to acute changes of medical conditions
4. Attendance at 4 - 6 informal lectures on critical care topics (typically at 1:00 pm in the MSICU)
5. Completion of problem-based learning focused on using the available literature to research one patient/problem per week

**PATIENT ENCOUNTERS:** Students will be expected to work-up patients with these specified conditions:
1. Postoperative recovery of patients with multiple or severe comorbidities and/or conditions after intraoperative complications
2. Respiratory dysfunction requiring mechanical ventilation and/or extended respiratory treatment
3. Hemodynamical and/or cardiological dysfunction requiring extended and/or invasive monitoring
4. Multi-organ-dysfunction syndrome in patients having long lasting life-threatening conditions
5. Altered mental status due to conditions with high risk of severe complications

**EVALUATION / FEEDBACK METHODS:** Students will be evaluated using the following methods.
1. E*Value Clinical Performance Evaluation (PC, PR, MK, CS, SL, PL)
2. Direct observation of clinical/practical skills performance by residents and attending on a daily basis (PC, PR, PL)
3. Discussion and communication with staff, residents and attendings during daily rounds and work in the ICU, confirming student’s appropriate level of knowledge and understanding (PC, PR, MK, CS, SL, PL)
4. Specific personal feedback according to outstanding events and extraordinary occasions by staff, residents, and attendings (PC, CS)
5. Discussion in interactive didactic sessions (MK, PL)
6) Mid-Point Feedback - A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance (MK, PC, PR, CS, SL, PL).

Will students be expected to participate in call? ☒ YES ☐ NO
Students will be expected to take night call once per week. Weekend days will be evenly split amongst available students (with a maximum of 4 weekend days per 4-week block).
ANES 865: Pain Management

**Course Director:** Arthur Smith, MD and Ryan Nobles, MD  
Email: smithar@musc.edu and nobles@musc.edu  

**Course Coordinator:** Kelly Landers  
Telephone #: 843-792-4316  
Email: landers@musc.edu

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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. Understand and discuss the types of pain and classification of pain (MK)
2. Understand pharmacology of local anesthetics (MK)
3. Understand the use of patient-controlled analgesia (MK)
4. Identify the landmarks and techniques for performing, indications, risks, and complications for nerve blocks in pain treatment (MK)
5. Demonstrate knowledge of the psychosocial aspects of chronic pain (MK)

**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.
1. E*Value Clinical Performance Evaluation (PC, PR, MK, CS, SL, PL)
2. Direct observation of the student’s interviewing and examining of the patients (PC, CS)
3. Following each patient interaction, the student will give an oral presentation describing the findings along with a diagnosis and treatment plan (MK)
4. Mid-Point Feedback - A mid-point evaluation form will be completed half way through the rotation in order for the student to be assessed on their performance (MK, PC, PR, CS, SL, PL)

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