SURG 830: Adult Cardiac Surgery Externship ASE

Course Director: Chad Denlinger, MD
Email: denlinge@musc.edu

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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	2	**Block 3**	2	**Block 5**	2	**Block 7**	2	**Block 9**	2
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	2	**Block 4**	2	**Block 6**	2	**Block 8**	2	**Block 10**	2
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

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.
3. Weekly Division of Cardiothoracic Surgery M and M conferences and Grand Rounds.
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.
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

SURG 832: Night Emergency Surgery ASE

Course Director: Evert Eriksson, MD
Email: eriksson@musc.edu

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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	1	**Block 3**	1	**Block 5**	1	**Block 7**	1	**Block 9**	1
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	1	**Block 4**	1	**Block 6**	1	**Block 8**	1	**Block 10**	1
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

Does this rotation accept visiting students? ☒ 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:
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
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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	1	**Block 3**	1	**Block 5**	1	**Block 7**	1	**Block 9**	1
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	1	**Block 4**	1	**Block 6**	1	**Block 8**	1	**Block 10**	1
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

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:
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

SURG 834: Pediatric Surgery Externship ASE

Course Director: Laura Hollinger, MD
Email: hollingl@musc.edu

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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	1	**Block 3**	1	**Block 5**	1	**Block 7**	1	**Block 9**	1
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	1	**Block 4**	1	**Block 6**	1	**Block 8**	1	**Block 10**	1
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

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:
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
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.

SURG 835: Plastic Surgery Externship ASE

Course Director: Lance Tavana, MD
Email: tavana@musc.edu

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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	2	**Block 3**	2	**Block 5**	2	**Block 7**	2	**Block 9**	2
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	2	**Block 4**	2	**Block 6**	2	**Block 8**	2	**Block 10**	2
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

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.
4. Weekly Plastic Surgery division didactic and grand rounds conferences.
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:
1. E*Value Clinical Performance Evaluation.
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

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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	2	**Block 3**	2	**Block 5**	2	**Block 7**	2	**Block 9**	2
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	2	**Block 4**	2	**Block 6**	2	**Block 8**	2	**Block 10**	2
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

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 procedure. (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 tumor board conferences.
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:
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

SURG 838: Transplant Surgery Externship ASE

Course Director: Angello Lin, MD
Email: linang@musc.edu

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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	2	**Block 3**	2	**Block 5**	2	**Block 7**	2	**Block 9**	2
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	2	**Block 4**	2	**Block 6**	2	**Block 8**	2	**Block 10**	2
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

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:
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
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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	2	**Block 3**	2	**Block 5**	2	**Block 7**	2	**Block 9**	2
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	2	**Block 4**	2	**Block 6**	2	**Block 8**	2	**Block 10**	2
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

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

SURG 840: Peripheral Vascular Surgery Externship ASE

Course Director: Jean M. Ruddy, MD
Email: ruddy@musc.edu

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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	2	**Block 3**	2	**Block 5**	1	**Block 7**	1	**Block 9**	1
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	2	**Block 4**	2	**Block 6**	1	**Block 8**	1	**Block 10**	1
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

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:
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.
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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	6	**Block 3**	6	**Block 5**	6	**Block 7**	6	**Block 9**	6
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	6	**Block 4**	6	**Block 6**	6	**Block 8**	6	**Block 10**	6
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

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:
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
Variable home call depending upon assigned preceptor.

SURG 846: Surgical Trauma ICU

Course Director: Edward Kilb, MD
Email: kilbiii@musc.edu

Unit Director: Stuart Leon, MD
Email: leon@musc.edu

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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	3	**Block 3**	3	**Block 5**	3	**Block 7**	3	**Block 9**	3
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	3	**Block 4**	3	**Block 6**	3	**Block 8**	3	**Block 10**	3
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

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.
3. Students will learn about pharmacotherapy in the ICU, including vasopressors, antibiotics, and sedatives, and analgesic medications.
4. 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.
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. 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 873: GI Surgery Externship ASE

Course Director: William Lancaster, MD
Email: lancastw@musc.edu

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

BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#	BLOCK	#
Block 1	3	**Block 3**	3	**Block 5**	3	**Block 7**	3	**Block 9**	3
Block 1A		Block 3A		Block 5A		Block 7A		Block 9A	
Block 1B		Block 3B		Block 5B		Block 7B		Block 9B	
Block 2	3	**Block 4**	3	**Block 6**	3	**Block 8**	3	**Block 10**	3
Block 2A		Block 4A		Block 6A		Block 8A		Block 10A	
Block 2B		Block 4B		Block 6B		Block 8B		Block 10B	

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:
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