Surgery (SURGRY)

**SURGRY 6006: Surgery Clerkship**
Emphasis is placed on the diagnosis and treatment of disorders requiring surgical intervention. Each student has a faculty mentor-advisor, attends faculty discussion sessions that cover objectives in the required textbooks and takes call under the supervision of surgical residents. Students are assigned patients from all surgical specialties, participate in preoperative examinations and evaluations, assist during surgical procedures and follow the postoperative management process.

**Credit Hours:** 8

**SURGRY 6016: Rural Surgery Clerkship**
Rural Surgery Clerkship

**Credit Hours:** 8

**SURGRY 6026: Springfield Surgery Clerkship**
Emphasis is placed on the diagnosis and treatment of disorders requiring surgical intervention. Students are assigned patients from all surgical specialties, participate in preoperative examinations and evaluations, assist during surgical procedures and follow the postoperative management process.

**Credit Hours:** 8

**Prerequisites:** successful completion of the first two years of medical school

**SURGRY 6036: SCC Surgical Oncology**
The surgical oncology student will function as a "junior house officer" and be actively involved in the diagnosis, treatment and management of patients with cancer both Gynecologic and Head and Neck Cancers. The student will work in the clinics, participate in ward rounds, and be a full member of the surgical oncology team in and out of the operating room. The student will attend cancer conferences and will be given reading assignments in order to broaden his/her data base. The two course directors will collaborate on the student schedule in order to provide approximately half of the time in each specialty.

**Credit Hours:** 5

**Prerequisites:** Successful completion of 5 of the 7 core clerkships. One of the 5 must be the Surgery Clerkship. SURGRY 6006, 6016, 6026, or 6106

**SURGRY 6038: SCC Vascular Surgery Selective**
The 4th year vascular surgery student will function similar to a "junior house officer" and be actively involved in the diagnosis and management of vascular disorders. They will work in the clinics, participate in ward rounds, teaching conferences, and will be a full member of the vascular team in and out of the operating room.

**Credit Hours:** 5

**Prerequisites:** Fourth Year Medical Student. Successful completion of 5 of the 7 core clerkships. One of the 5 must be the Surgery Clerkship. SURGRY 6006, 6016, 6026, or 6106

**SURGRY 6040: SCC Advanced Clinical Surgical Selective**
Students will enhance their knowledge, skills, and attitudes about patient-centered care through active participation in direct patient care activities while under the supervision of a faculty preceptor. Students will integrate previously acquired knowledge and concepts and apply them to the care and management of patients.

**Credit Hours:** 5

**Recommended:** Successful completion of 5 of 7 core clerkships, including the Surgery clerkship. Additional department specific pre-requisites may apply

**SURGRY 6042: SCC Pediatric Surgery Selective**
The pediatric surgery student will work as part of the team providing hands on clinical care in inpatient, outpatient, and emergent settings. Students will participate in rounds, clinic, and the operating room. The student will do one approximately 10 minute presentation on a mutually agreed upon topic.

**Credit Hours:** 5

**Prerequisites:** Successful completion of the first two years of medical school. Successful completion of 5 of the 7 core clerkships. One of the 5 must be the Surgery Clerkship

**SURGRY 6046: SCC Plastic Surgery Selective**
The plastic surgery student will participate in all sub-specialty areas of plastic surgery including hand and microsurgery, head and neck cancer surgery, congenital deformities, burns, facial trauma, and major reconstruction, as well as cosmetic surgery. The student will be expected to perform at the level of a "junior house officer" on the Plastic Surgery team.

**Credit Hours:** 5

**Prerequisites:** Successful completion of 5 of the 7 clerkships. One of the 5 must be the Surgery Clerkship

**SURGRY 6054: Springfield Cardiothoracic Surgery Selective 4-wk**
The fourth-year cardiothoracic surgery student will work as an extern on the surgical service. They will participate in rounds, clinics, operative arena, and the diagnostic laboratory. Management of complex cardiothoracic/thoracic pathology with a team approach will be defined. Students will participate both in an inpatient setting as well as an outpatient clinic with opportunities for educating patients regarding risk-factor modification in the prevention of cardiopulmonary disease.

**Credit Hours:** 5

**Prerequisites:** Successful completion of 5 of the 7 core clerkships. One of the 5 must be the Surgery Clerkship

**SURGRY 6066: LINC Surgery Clerkship**
A Longitudinal Integrated Clerkship (LINC) includes medical students in patient care over time, allowing enduring learning relationships to develop with patients and physician-teachers. Students will meet required core clinical competencies in multiple disciplines through interleaved, longitudinal experiences over the course of the clinical training year. In contrast to a block curriculum, students meet and follow their patients across multiple settings of care and different disciplines.

**Credit Hours:** 8
SURGRY 6106: Remediation Surgery Clerkship
Enrolled students are those who received an unsatisfactory grade in a Surgery Clerkship at any Mizzou Med location or site. This course gives the student an opportunity to rectify their deficiency.

Credit Hours: 8
Prerequisites: SURGRY 6006 Surgery Clerkship, received unsatisfactory grade

SURGRY 6126: Remediation Springfield Surgery Clerkship
Emphasis is placed on the diagnosis and treatment of disorders requiring surgical intervention. Students are assigned patients from all surgical specialties, participate in preoperative examinations and evaluations, assist during surgical procedures and follow the postoperative management process.

Credit Hours: 8
Prerequisites: successful completion of the first two years of medical school

SURGRY 6383: ABS Surgery Research
ABS Surgery Research
Credit Hour: 5-10

SURGRY 6655: Surgical Off-Site Elective
Surgical Off-Site Elective
Credit Hours: 5

SURGRY 6658: Burn Unit
Burn Unit
Credit Hours: 5

SURGRY 6661: Surgery Research Elective
Surgery Research Elective
Credit Hours: 5

SURGRY 6668: Orthopaedic Surgery Research Elective
Student will identify interest in surgical clinical research and other topical areas of orthopaedic surgery. The research will define concepts relevant to the practice of orthopaedic surgery. The student will engage in self-directed learning and evaluation of new information.

Credit Hours: 5
Prerequisites: SURGRY 6006; level M4

SURGRY 6926: Ambulatory Otolaryngology
The student will recognize all subspecialty areas included on this rotation: facial trauma, otology/neurotology, head and neck surgical oncology, facial plastic surgery, sinus surgery, pediatric ENT, laryngology and allergy. The student will be exposed to a broad spectrum of patients (adult and pediatric) in both procedural and clinical settings. Students will demonstrate improved technical skills during the 2 week rotation.

Credit Hours: 2
Prerequisites: successful completion of the first two years of medical school

SURGRY 6942: SCC Urology Two Week Elective
Students will work under the supervision of a faculty preceptor at the Springfield Clinical Campus. Students will see patients in the outpatient clinic and/or inpatient hospital setting, perform a history and physical exam, and develop a patient-centered assessment and plan. They will discuss their findings, assessment and plan with the faculty preceptor and see the patient together. The student will complete oral patient presentations and document patient encounters in the medical record as directed by the faculty preceptor. Students will gain significant exposure to the Urologic operating room environment and procedural treatments, including open, laparoscopic, robotic, and endoscopic procedures.

Credit Hours: 2

SURGRY 6944: SCC Vascular Surgery 2-week
This course is intended as an introduction to the specialty of vascular surgery. The vascular surgery student will be actively involved in the diagnosis and management of vascular disorders. They will work in the clinics, participate in ward rounds, teaching conferences, and will be a full member of the vascular team in and out of the operating room.

Credit Hours: 2
Prerequisites: Successful completion of the first two years of medical school. Must have completed Surgery clerkship

SURGRY 6945: SCC Pediatric Surgery 2WK Elective
This course is intended as an introduction to the specialty for the novice clinical student. The pediatric surgery student will work as part of the team providing hands on clinical care in inpatient, outpatient, and emergent settings. Students will participate in rounds, clinic, and the operating room.

Credit Hours: 2
Prerequisites: Successful completion of the first two years of medical school

SURGRY 6946: Pediatric Orthopaedic Surgery 2WK
The course is meant to be an introductory experience to Orthopedic Surgery with specific exposure to pediatric orthopaedics. The student will be actively involved in clinic, in-patient care, and the operating room. The student will learn the basic presentation, evaluation, and management of adult patients with common pediatric orthopedic problems, such as fractures, scoliosis, and neuromuscular disease.

Credit Hours: 2
Prerequisites: Successful completion of the first two years of medical school

SURGRY 6947: Pediatric Sports Medicine 2WK
The course is meant to be an introductory experience to Orthopedic Surgery with specific exposure to operative sports medicine. The student will be actively involved in clinic, in-patient care, and the operating room. The student will learn the basic presentation, evaluation, and management of adult patients with common orthopedic sports injuries, such as knee ligament instability, meniscal tears, and rotator cuff pathology.

Credit Hours: 2
Prerequisites: Successful completion of the first two years of medical school
SURGRY 6948: Orthopaedic Surgery - Spine 2WK
The course is meant to be an introductory experience to Orthopedic Surgery with specific exposure to spine. The student will be actively involved in clinic, in-patient care, and the operating room. The student will learn the basic presentation, evaluation, and management of adult patients with common orthopedic problems, such as spinal stenosis and herniated disc.
Credit Hours: 2
Prerequisites: Successful completion of the first two years of medical school

SURGRY 6949: Orthopaedic Surgery - Adult Reconstruction 2WK
The course is meant to be an introductory experience to Orthopedic Surgery with specific exposure to adult reconstruction. The student will be actively involved in clinic, in-patient care, and the operating room. The student will learn the basic presentation, evaluation, and management of adult patients with common orthopedic problems, such as hip and knee arthritis.
Credit Hours: 2
Prerequisites: Successful completion of the first two years of medical school

SURGRY 6950: Orthopaedic Surgery - Hand Surgery 2 WK
The course is meant to be an introductory experience to Orthopedic Surgery with specific exposure to hand surgery. The student will be actively involved in clinic, in-patient care, and the operating room. The student will learn the basic presentation, evaluation, and management of adult patients with common hand problems, such as carpal tunnel, fractures, tendon injuries, and trigger fingers.
Credit Hours: 2
Prerequisites: Successful completion of the first two years of medical school

SURGRY 6954: SCC Plastic Surgery 2-week
The plastic surgery student will have an introductory exposure to the subspecialty areas of plastic surgery including hand and microsurgery, head and neck cancer surgery, congenital deformities, burns, facial trauma, and major reconstruction, as well as cosmetic surgery. Students will integrate knowledge, reasoning, and clinical skills in providing plastic surgery patient-centered care. Students will obtain ambulatory and inpatient care exposure by participating in the evaluations, consultations, and care of patients in the clinics and on the wards. Students will acquire "hands on" operative experience and opportunity to learn, practice, and hone suturing techniques and to assist on many surgical procedures.
Credit Hours: 2
Prerequisites: Successful completion of the first two years of medical school

SURGRY 6955: Ambulatory ENT/Urology
Goals/Objectives: This elective will offer students an exposure to ambulatory care in urology and otolaryngology. Students will see a broad range of patients and numerous outpatient procedures. Students will have close supervision during this experience. Both services have a combined outpatient population of 24,000 visits per year. Students will be exposed to numerous situations they would face in a primary care office. Clinic is offered five days per week by each service. Observation in the O.R. is available and attendance at teaching conferences is required. There will be a written exam given at the completion of the 2 weeks of ENT.
Credit Hours: 5

SURGRY 6957: Cardiothoracic Surgery
Cardiothoracic Surgery
Credit Hours: 5

SURGRY 6958: Surgical off-Site Selective
Surgical off-Site Selective
Credit Hours: 5

SURGRY 6959: General Surgery Externship
Goals/Objectives: 1. Provide the student with ability to function as a first year general surgery house officer with close supervision and one-on-one instruction. 2. Become familiar with pre-operative, operative, and post-operative care of general surgical patients. 3. Become familiar with the graded responsibility structure necessary to ethically conduct post-graduate surgical residency training. 4. Develop bedside patient care skills. 5. Develop reading and clinical research skills necessary for contemporary surgical care.
Credit Hours: 5

SURGRY 6966: Springfield Ambulatory Otolaryngology 2WK
The student will recognize all subspecialty areas included on this rotation: facial trauma, otology/neurotology, head and neck surgical oncology, facial plastic surgery, sinus surgery, pediatric ENT, laryngology, and allergy. The student will be exposed to a broad spectrum of patients (adult and pediatric) in both procedural and clinical settings. Students will demonstrate improved technical skills during the two-week rotation. This course is located at Springfield Campus.
Credit Hours: 5

SURGRY 6967: Springfield General Surgery Externship
The 4th year general surgery student will function as a first year surgical house officer and be integrated in pre-operative, operative, and post-operative care of general surgical patients.
Credit Hours: 5

SURGRY 6968: Springfield Critical Care Surgery Clerkship
The Surgical Critical Care student will acquire a broad exposure to assessment and management of critically ill and injured patients. The student will participate in daily rounds and patient care with the Surgical Critical Care service. Students will become an active member of the multidisciplinary ICU team and remain under the close supervision of Acute Care Surgery Faculty and Residents. Participation with the members of the multidisciplinary critical care team creates an excellent practical learning environment, while didactic conferences/case presentations compliment the experience.
Credit Hours: 5
Prerequisites: Surgery Clerkship
SURGRY 6972: Surgical Oncology
Surgical Oncology
Credit Hours: 5

SURGRY 6973: Head and Neck Surgical Oncology
Head and Neck Surgical Oncology
Credit Hours: 5

SURGRY 6974: Otolaryngology
Goals/Objectives: The Otolaryngology student rotation offers learning through participation in daily care of patients, case discussion in conferences, and didactic conferences. All subspecialty areas are included on this rotation, including facial trauma, otology, neurotology, head and neck surgical oncology, facial reconstruction, sinus surgery, pediatric ENT and allergy. Significant outpatient experience is provided and the extent of operating room participation to the student's needs and preferences. The student sees a full spectrum of patients (adult and pediatric) at the University and the VA. The student sees and learns about a variety of outpatient problems during the outpatient segment of this rotation. A wide variety of surgical procedures are observed in the operating room. The residents and faculty encourage an individually tailored learning experience for the student. Supplemental texts and other teaching aids are encouraged. Clinical research projects are available for interested and committed students.
Credit Hours: 5
Prerequisites: Surgery Clerkship

SURGRY 6975: Pediatric Surgery
Goals/Objectives: To gain a working knowledge of a) diagnosis, b) preoperative care, c) surgery, and d) postoperative care of the 1) congenital 2) traumatic 3) oncologic and 4) common surgical conditions affecting infants and children. This rotation is designed for the student planning a career that includes the care of infants and children.
CURRICULUM: Attendance on daily rounds and participation in pediatric surgery clinic are mandatory. The student should also be present in radiology for all inpatient and outpatient contrast studies on surgical patients and consults. Operating room exposure can be individualized; the student is expected to be present, but not necessarily scrubbed, for the key portion of each case. Pediatric Surgical texts can be found in the Medical Library under RD 137, in the Pediatric or Surgery libraries, in the bookstore. Rowe - Essentials of Pediatric Surgery, Holder - Pediatric Surgery, Welch - Pediatric Surgery (4th ed.), Coran - Surgery of the Neonate.
Credit Hours: 5
Prerequisites: Surgery Clerkship

SURGRY 6976: Plastic Surgery
Goals/Objectives: The plastic surgery student rotation is considered "hands on" experience for the student rotating in the division of plastic surgery. This is a busy rotation with good opportunity for clinical exposure. The patient population includes all subspecialty areas of plastic surgery including hand and microsurgery, head and neck cancer surgery, congenital deformities, burns, facial trauma, and major reconstruction, as well as cosmetic surgery. On this rotation, the student is expected to have an in-depth opportunity to learn, practice, and hone surgical suturing techniques and to first or second assist on many major surgical procedures. The graphic specialty of plastic surgery is best appreciated by participation and observation and there will be ample opportunity for this. In addition to the ward and major operating room duties, the student will obtain ambulatory patient care exposure by participating in the clinics, in the evaluation of new patients, and the after care of surgery patients. In addition, a significant percentage of the surgery is done as an outpatient and the student should have the opportunity to gain appreciation of the nuances of surgery done in the ambulatory environment. Incumbent to these considerations are exposure and appreciation of cost containment in plastic surgical procedures.
Credit Hours: 5

SURGRY 6977: Acute Care Surgery
Students will participate in patient care, gather pertinent patient data, and develop plans of care for the patients on the surgery service. Case presentations will be given to the surgical team each day. Night and weekend call should be expected.
Credit Hours: 5
Prerequisites: Surgery and Internal Medicine Clerkship

SURGRY 6978: Springfield Otolaryngology Surgical Selective 4wk
The fourth-year otolaryngology student will work as a sub-intern on the surgical team. The otolaryngology student will participate in daily care of patients, case discussion in conferences, and weekly head and neck conferences.
Credit Hours: 5
Prerequisites: Successful completion of 5 of the 7 core clerkships. One must be the Surgery clerkship

SURGRY 6979: Vascular Surgery
Vascular Surgery
Credit Hours: 5

SURGRY 6980: Urology
The goal of the rotation is to provide a comprehensive urologic experience for those students who may be interested in Urology as a career as well as those students who simply want a more in-depth experience before pursuing another specialty. At the conclusion of the rotation, the student will be able to competently manage common urologic conditions such as hematuria, incontinence, and erectile dysfunction and recognize those patients who need referral to a specialist. To accomplish this, emphasis is placed on the management of both outpatients and inpatients. Active participation in the operating room is expected and the student will assist in a wide variety of urologic procedures. Students will also participate in outpatient procedures such as cystoscopy and vasectomy. Basically, the student will function as an extern on the University Urologic Service with appropriate patient care responsibilities.
Credit Hours: 5

SURGRY 6981: Orthopaedic Surgery Sub-Internship
Goals/Objectives: Rotation for students actively interested (more aggressive) students in orthopaedics as a career. Emphasis will be placed on surgical indications, operative technique and post-operative care of orthopaedic patients. The student will be assigned by Ortho
Of particular importance will be the emphasis placed upon the initial aspects of neurosurgical diseases and their evaluation and management. Neuroanatomy and neurophysiology and a correlation of that information will be a must be the Surgery Clerkship.

### Goals/Objectives
This course will provide the conscientious student with an opportunity to acquire the following: 1. A basic understanding of the nervous system, pain problems, diseases of the spine and lumbar discs. 2. The ability to perform comprehensive neurological evaluation of the patient including both history taking and physical examination. 3. Outpatient clinics, elective and emergent OR time, routine day-to-day care of patients on the orthopaedic service, and consultations. The student will take four nights of call with the Ortho residents assigned to service. The student will be evaluated by the attending and residents on the two services to which they have been assigned.

**Credit Hours:** 5  
**Prerequisites:** Surgery Clerkship

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**SURG 6982: Introduction to Orthopaedic Surgery**

**Goals/Objectives:** Rotations for students interested in a career in primary care. The student will learn physical diagnosis and outpatient care as well as surgical treatment of common orthopedic conditions. Each student will be assigned a list of topics that will be covered, a reading list to which the student would be obligated to read and given a short written and/or oral examination of the musculoskeletal system emphasized. Brief oral presentation, to the residency or service on which they are working, on an orthopedic subject of choice pertaining to Ortho service/residency assigned. The student will be assigned for the four weeks by Ortho Faculty to a preceptor from one of the following areas: sports medicine, foot and ankle, total joint, general, pediatrics, trauma or hand. The student will participate in outpatient clinics, OR cases, rounds and conferences. The student will take two call nights with the Ortho Resident assigned to service. Basic techniques of splinting and cast application will be learned by sessions with the orthopedic cast technician.

**Credit Hours:** 5  
**Prerequisites:** Surgery Clerkship

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**SURG 6984: Springfield Burn Surgical Selective**

The fourth-year medical student will be integrated into the Burn Care Team. They will participate in intensive care delivery, wound management, and surgical procedures. The student will attend rounds, and available case conferences, and presentations.

**Credit Hours:** 5  
**Prerequisites:** Successful completion of 5 of the 7 core clerkships. One of the 5 must be the Surgery Clerkship

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**SURG 6985: Neurosurgery A**

**Goals/Objectives:** This course will provide the conscientious student an opportunity to acquire the following: 1. The ability to perform comprehensive neurological evaluation of the patient including both history taking and physical examination. This will entail a review of basic neuroanatomy and neurophysiology and a correlation of that information with the requirements of clinical medicine. 2. A basic understanding of neurosurgical diseases and their evaluation and management. Of particular importance will be the emphasis placed upon the initial evaluation of patients with central and peripheral nervous system trauma and neoplasms, cerebrovascular disease, congenital diseases of the nervous system, pain problems, diseases of the spine and lumbar discs. CURRICULUM: In order to direct the objectives of this course, students will be exposed to the following: 1. Individualized teaching sessions with the faculty. 2. Combined conferences with neurology, neuroradiology and neuropathology. 3. Outpatient clinics at the UMHSC and EFCC (Ellis Fischel). 4. The inpatient services of neurosurgery at UMHSC. 5. The operating room at UMHSC. Evaluations: The progress of the student will be evaluated through personal interaction with the faculty and residents and through an oral examination at the end of the course.

**Credit Hours:** 5  
**Prerequisites:** Surgery Clerkship

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**SURG 6987: Springfield Surgical Critical Care**

The 4th year Surgical Critical Care student will acquire a broad exposure to assessment and management of critically ill and injured patients. The student will participate in daily rounds and patient care with the Surgical Critical Care service.

**Credit Hours:** 5  
**Prerequisites:** Successful completion of 5 of the 7 core clerkships. Two of the 5 must be the Surgery Clerkship and Internal Medicine Clerkship

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**SURG 6989: Pediatric Neurosurgery**

**Goals/Objectives:** To provide interested students the opportunity to acquire exposure and knowledge in the field of pediatric neurosurgery. This elective will allow the student to learn about clinical entities such as craniofacial anomalies, hydrocephalus, neuroendoscopy, congenital and central nervous system anomalies, and trauma of the CNS. The student becomes part of a team and closely interacts with the attending physician, neurosurgery residents, and clinical nurse specialist. CURRICULUM: 1. Daily inpatient rounds. 2. Individualized teaching with faculty. 3. Clinics: Chiari and Pediatric Neurosurgery. 4. Conferences: Neurosurgery Grand Rounds, Neuro-radiology, Neuro-pathology, Neuroscience. **Prerequisites:** Surgery Clerkship

**Credit Hours:** 5  

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**SURG 6991: Longitudinal Neurosciences Selective**

The fourth year ambulatory longitudinal rotation in neurosciences follows neurosurgical patients from admission in the NSICU, through their operative encounter, and then on to their neuro-rehabilitation. The student will work as part of the multi-disciplinary team providing hands-on care in the inpatient, intensive care, and neuro-rehabilitative settings. The student is assigned selected hospitalized neurosurgical patients during their first two weeks of the rotation. The student will participate in the planned or emergent operative care of these selected patients. Once these patients are transferred to the inpatient and rehabilitative setting, the student will follow them through their recovery and rehabilitation. Student time will be spent equivalently across the different patient locations with emphasis placed on continuity of care. Faculty members in both Neurological Surgery and Physical Medicine and Rehabilitation will supervise this experience.

**Credit Hours:** 5  
**Prerequisites:** Successful completion of five of the seven core clerkships with two of the five being the Neurology Clerkship and the Surgery Clerkship