

DEPARTMENT OF SURGERY

Medical Center of Central Georgia
777 Hemlock Street
Macon, Georgia 31208
478-633-7101

Memorial University Medical Center
4700 Waters Avenue
Savannah, Georgia 31404
912-350-5900

Course Number	Course Name
SUR.M01 SUR.S01	Advanced General Surgery
SUR.M02 SUR.S02	Trauma Surgery
SUR.M03	Surgical Oncology
SUR.M04 SUR.S04	Cardiac Surgery
SUR.M05 SUR.S05	Colorectal Surgery
SUR.M06 SUR.S06	Neurosurgery
SUR.S07	Ophthalmology
SUR.M08 SUR.S08	Orthopaedic Surgery
SUR.M09 SUR.S09	Urology
SUR.M10 SUR.S10	Otolaryngology
SUR.M11 SUR.S11	Pediatric Surgery
SUR.M12 SUR.S12	Plastic Surgery
SUR.M13	Hand Surgery
SUR.M14 SUR.S14	Private Practice of General Surgery
SUR.M15	Orthopaedic/Musculoskeletal Research

SUR.M16	Surgical Research
SUR.S18	Breast Surgery
SUR.S19	Minimally Invasive Surgery/MIS
SUR.S20	Surgical Oncology/Gastrointestinal Surgery
SUR.S21	Clinical Research in Cancer Surgery
SUR.M200 SUR.S200	(STICU) Critical Care/Intensive Care Unit

ADVANCED GENERAL SURGERY

SUR.M01, SUR.S01

DURATION:	2-4 Weeks
ENROLLMENT:	Maximum 2 students
VISITING STUDENTS:	Yes
PCR MAJORITY:	Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.M01: General Surgery Faculty. Contact Mary Witherington 478-633-1063

SUR.S01: General Surgery Faculty, report at 8:00 am on the first day of the rotation to the Surgical Education Office, Contact 912-350-5900

DESCRIPTION:

The student is assigned to a member of the Surgery Faculty who serves as preceptor. The goal is to provide a well-rounded experience in surgery, which includes General, Cardiac, and Thoracic. Each student will be assigned to a surgical teaching service and will work with the residents on that service under the supervision of the attending surgeon and faculty. The student will be allowed in-hospital call every third or fourth night and given the opportunity for evaluation of emergency surgical consultations early in the patient's hospital stay in order to prepare the student for internship. In Savannah, student will be assigned to a specific faculty member.

OBJECTIVES:

- To provide a well-rounded experience in surgery.
- To improve acumen in history taking, physical examination, and diagnostic modalities as applied to surgery.
- To scrub on surgical cases so as to improve skill, knowledge, and technique of surgical procedures.
- To learn what gross pathology is presented at surgery.
- To learn to evaluate preoperatively the status of the patient as regards his ability to withstand the contemplated procedure and anesthetic.
- To assist in postoperative care such as dressings, drains, gastrointestinal tubes, venous access lines, etc.
- To learn proper treatment and evaluate the results and follow-up care of surgical patients.
- To better prepare for a surgical internship.

EVALUATION:

The Surgery Faculty, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

SENIOR STUDENT TRAUMA ROTATION

SUR.M02, SUR.S02

DURATION:	2-4 Weeks
ENROLLMENT:	Maximum 1 Student
VISITING STUDENTS:	Yes (must be approved by Chief of Trauma Services)
PCR MAJORITY:	Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.M02: Dennis Ashley, M.D. Contact Senesta Corbin 478-633-1199 one week prior to the start of the rotation

SUR.S02: M. Gage Ochsner, M.D. Report 7:30 a.m. on the first day of the rotation to the Chief Resident of Trauma Services. Contact 912-350-5900

DESCRIPTION:

The student will be assigned to the Chief of the Trauma Service and be responsible to him/her. The experience will include trauma call, trauma surgery, patient care in the trauma intensive care unit, and patient care in the outpatient clinics. Lectures on trauma care and trauma system development will be included. An introduction to the principles and practices of pre-hospital care, to include experience on both helicopter and ground EMS services, is included.

OBJECTIVES:

- To give the student an understanding of the principles and practice of care of the multiple injured patient.
- To participate in operations in order to improve skill, knowledge, and technique of surgical procedures.
- The student should gain an understanding of the importance of the trauma care system development in pre-hospital care of the trauma patient.

EVALUATION:

Evaluation will be by direct observation by the preceptor and also by standardized written tests at the end of the rotation.

SURGICAL ONCOLOGY

SUR.M03

DURATION: 2-4 Weeks
ENROLLMENT: Maximum 1 student
VISITING STUDENTS: No
PCR MAJORITY: Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.M03 A. Conforti, M.D. MCCG, Macon, GA. Contact – 478-745-3363

Not available on Savannah Campus

DESCRIPTION:

The student will make daily rounds, see consultations, scrub on all surgical procedures, and have follow-up experience with ambulatory office patient care. Preceptor will give assigned readings.

OBJECTIVES:

- To provide an exposure to surgical oncology through office and operating room exposure.

EVALUATION:

The preceptor, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

CARDIAC SURGERY**SUR.M04, SUR.S04**

DURATION:	2-4 Weeks
ENROLLMENT:	Maximum 1 student
VISITING STUDENTS:	No
PCR MAJORITY:	Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.M04: Joe H. Johnson, M.D., Randall B. Brown, M.D. MCCG, Macon, GA. Contact Mary Witherington 478-633-1063

SUR.S04: Robert E. Jones, M.D., Report to Heart and Lung Surgery Group, Suite 403 Provident Building, Savannah, GA 912-692-1130. Contact Debbie Brickner, Coordinator for Undergraduate Medical Education 912-350-8076

DESCRIPTION:

The student is assigned to a cardiac surgery team at the Medical Center of Central Georgia and/or at other area hospitals where the preceptor's patients are cared for. A goal is to provide a comprehensive experience in cardiac surgery. This would include preoperative evaluation, angiographic diagnosis, etc.

OBJECTIVES:

- To provide a well-rounded experience to the surgical care of cardiac disease.
- To improve the acumen in history taking, physical exam, and diagnostic modalities as applied to patients with cardiac diseases, which are amenable to surgery.
- To participate in operations in order to improve skill, knowledge, and technique of surgical procedures.
- To understand the clinical correlation of gross pathology in cardiac disease.
- To learn to evaluate the preoperative status of the patient as regards to their ability to undergo the planned procedure and anesthesia.
- To assist in postoperative care.
- To learn proper treatment, evaluation, and result of long-term follow-up of patients with cardiac disease, with an emphasis on rehabilitation.

EVALUATION:

The preceptor, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

COLORECTAL SURGERY

SUR.M05, SUR.S05

DURATION:	2-4 Weeks
ENROLLMENT:	Maximum 1 student
VISITING STUDENTS:	No- Macon Yes-Savannah with pre-approval
PCR MAJORITY:	Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.M05: Douglas Brewer, M.D., MCCG, Macon, GA. Contact Mary Witherington 478-633-1063

SUR.S05: S. Alan Lord, M.D., Patrick Hammen, M.D., Oliver Whipple, M.D., Savannah Colon and Rectal Surgery, Ste 103, Provident Bldg., Savannah, GA. Contact – DeDe Herold, 912-350-8621.

DESCRIPTION:

The goal is to provide a comprehensive experience in colorectal surgery which includes diagnosis of anal/rectal disease, inflammatory diseases of the colon and their extra colonic manifestations, endoscopy of the lower G.I. tract, as well as treatment of common injuries.

OBJECTIVES:

- To provide a well-rounded experience to the surgical care of colorectal disease.
- To improve the acumen in history taking, physical exam, and diagnostic modalities as applied to colorectal surgery.
- To participate in operations in order to improve skill, knowledge, and technique of surgical procedures.
- To understand the clinical correlation of gross pathology in colon and rectal disease.
- To learn to evaluate the preoperative status of the patient as regards to their ability to undergo the planned procedure and anesthesia as well as adaptation following surgery.
- To assist in post-operative care.
- To learn proper treatment, evaluation, and result of long term follow-up of patients, particularly long-term evaluation of patients with colon and rectal diseases, both inflammatory and malignant.

EVALUATION:

The preceptor, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

NEUROSURGERY**SUR.M06, SUR.S06**

DURATION:	2-4 Weeks
ENROLLMENT:	Macon-Maximum 1 student Savannah-Maximum 2 students
VISITING STUDENTS:	Macon-No Savannah-Yes
PCR MAJORITY:	Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.M06: J. S. Robinson, M.D. and other associates, MCCG, Macon, GA.
Contact Mary Witherington 478-633-1063

SUR.S06: J. Underwood Howington, M.D., Will Thompson, M.D.,
Neurological Institute, 4 Jackson Blvd., Savannah, GA.
Contact Laurie Neeley, 912-355-1010

DESCRIPTION:

The student is assigned to a member of the Neurosurgery Faculty who will serve as preceptor. The student is assigned responsibility for selected patients for neurological work-up and for daily evaluation and progress notes. He/she is expected to attend daily conferences. Subjects will be assigned for teaching sessions with a member of the Neurosurgery Faculty. He/she is expected to scrub and observe neurological surgical procedures.

OBJECTIVES:

- To allow the student to familiarize himself/herself with the more common neurological and neurosurgical disorders.
- To gain confidence and competence in performing an adequate neurological examination.
- To become familiar with the various neurosurgical investigative methods, indications, and limitations of each.
- To learn proper treatment, evaluation, and diagnosis of nervous system trauma, neoplasm, vascular disease, hydrocephalus, and congenital disorders.

EVALUATION:

The preceptor, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

OPHTHALMOLOGY

SUR.S07

DURATION:	2 Weeks Only
ENROLLMENT:	Maximum 1 student
VISITING STUDENTS:	No
PCR MAJORITY:	Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.S07: Georgia Eye Institute Physicians, Savannah, GA. Report to Gwen Rush, first floor GA Eye Bldg, @ 8:30 am
Contact – 912-350-4818. **Not available last two weeks of December.**

Not available on Macon Campus.

DESCRIPTION:

The student is assigned to a member of the Ophthalmology Faculty who will serve as preceptor. The student will be exposed to both hospital and office practice of ophthalmology.

OBJECTIVES:

- To train the student in ophthalmoscopic and other basic examinations useful in the practice of ophthalmology.
- To learn to make the diagnosis of disease, trauma, and other conditions of the eye and related structures.
- To learn the relationship of diseases of the eye and other disease or organs of the body.
- To learn the proper treatment of conditions of the eye.
- To learn the anatomy, physiology, and function of the eye and the use of eyeglasses, contact lenses, etc.
- To scrub on surgical cases so as to improve knowledge, skill, and technique of surgical procedures under the direction of the preceptor.
- To assist in postoperative care such as dressings, etc., under the supervision of the preceptor.
- To follow assigned patients throughout their hospitalization and make rounds with the preceptor.

EVALUATION:

The preceptor, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

ORTHOPAEDIC SURGERY

SUR.M08, SUR.S08

DURATION:	2-4 Weeks
ENROLLMENT:	Maximum 1 student
VISITING STUDENTS:	No
PCR MAJORITY:	Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.M08: Timothy R. Stapleton, M.D. MCCG, Macon, GA. Contact – 478-743-3000

SUR.S08: Samuel Murray, M.D. Contact 912-355-6615

DESCRIPTION:

The student is assigned to a member of the Orthopaedic Faculty who will serve as preceptor. The student will be exposed to hospital, clinic, and office practice. The student will attend the orthopaedic conferences and will be assigned didactic subjects, and these will be discussed daily with members of the orthopaedic faculty.

OBJECTIVES:

- To learn the indications and methods of evaluation of orthopaedic conditions.
- To learn the problems of acute and chronic musculoskeletal disease and congenital anomalies, their diagnosis and treatment.
- To learn the diagnosis and proper management of acute and chronic trauma of an orthopaedic nature including fractures, dislocations, and sprains.
- To learn the proper interpretation of x-rays and other diagnostic procedures.
- To learn disability evaluation in regard to orthopaedic conditions.
- To scrub on surgical cases so as to improve skill, knowledge, and technique of surgical procedures under the direction of the preceptor.
- To assist in post-operative care such as dressings, casts, splints, braces, etc., under supervision of preceptor.
- To follow assigned patients throughout their hospitalization and to make rounds with the preceptor.

EVALUATION:

The preceptor, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

UROLOGY**SUR.M09, SUR.S09**

DURATION: 2-4 Weeks
ENROLLMENT: Maximum 1 student
VISITING STUDENTS: No
PCR MAJORITY: Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.M09: Joshua Perkel, M.D., MCCG, Macon, GA.
Contact Mary Witherington 478-633-1063

SUR.S09: Ryan Malone, M.D., Contact Debbie Brickner 912-350-8076

DESCRIPTION:

The student is assigned to a member of the Urology Faculty who will act as preceptor. A weekly routine will expose students to all aspects of Urology including both inpatient and outpatient care. The student will gain experience with cystoscopic, laparoscopic, robotic, minimally invasive and open urologic surgeries.

OBJECTIVES:

- Gain an understanding of the diagnosis and treatment of urologic diseases.
- Identify one area of urology of special interest and learn more detailed aspects about that area (i.e., kidney stones, incontinence, prostate cancer).
- Learn proper placement of a Foley catheter.

EVALUATION:

The preceptor, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

OTORYNOLARYNGOLOGY and HEAD AND NECK SURGERY

SUR.M10, SUR.S10

DURATION:	2-4 Weeks
ENROLLMENT:	Maximum 1 student
VISITING STUDENTS:	No
PCR MAJORITY:	Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.M10: ENT Center, Macon, GA. Contact Melinda Bivins at 478-743-8953 at least one week prior to the start of the rotation

SUR.S10: Michael Poole, M.D. Call the Friday before the rotation begins. Report to the Georgia Ear Institute. Contact - Diana 912-350-5092; Michael Zoller, M.D., ENT Associates, 5201Frederick Street, Savannah, 912-351-3030.

DESCRIPTION:

The student is assigned to a member of the Otolaryngology Faculty who serves as preceptor. The student will have the opportunity to get a broad sampling of the specialty of Ear, Nose, and Throat, as well as Head and Neck Surgery. The student will be exposed to an office practice daily with emphasis on adequate performance of an ENT examination, especially the use of fiberoptic evaluation of the larynx (indirect laryngoscopy). There will also be allergy testing as well as audiological evaluation and disposition of hearing loss and balance problems and exposure to surgical ENT procedures.

OBJECTIVES:

- To be exposed to practice of Otolaryngology and head and neck surgery in children and adults.
- To learn how to properly conduct an ENT examination to include the use of diagnostic and treatment instruments.
- Observe fiberoptic laryngoscopy and learn anatomic appearance and abnormality of the upper airway.
- To learn the value and procedure of performing allergy testing and hyposensitization.
- To learn the value and procedure of audiological examination and the proper disposition of hearing loss and balance problems.
- To have surgical exposure and insight into ENT problems.
- To know the indications and to participate in the performance of plastic surgery of the nose as well as cosmetic surgery.
- To learn how to properly diagnose and treat ENT and head and neck problems.

EVALUATION:

The preceptor, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

PEDIATRIC SURGERY**SUR.M11, SUR.S11**

DURATION: 2-4 Weeks
ENROLLMENT: Macon: 1 student, Savannah: 2 students
VISITING STUDENTS: No
PCR MAJORITY: Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.M11 Don K. Nakayama, M.D., Chair, Department of Surgery, MCCG
Contact Mary Witherington 478-633-1063

SUR.S11: William Boswell, M.D., David Carney, M.D., Contact - Barbara Paul 912-350-7914 or 912-350-7707 for scheduling information.

DESCRIPTION:

Attend regular student activities of the Department of Surgery. Make twice daily ward rounds with Pediatric Surgery residents. See pre- and post-operative patients in the pediatric surgery office. Perform supervised in-patient pediatric surgery consultations. Participate in the operative care of patients. There will be required reading from selected texts.

OBJECTIVES:

- To provide an intense experience with both the common and rare surgical problems of children, which will be of benefit for students interested in a surgical, pediatric, or family medicine career.

EVALUATION:

The preceptor, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

PLASTIC SURGERY**SUR.M12, SUR.S12**

DURATION:	2-4 weeks
ENROLLMENT:	Maximum 1 student/preceptor
VISITING STUDENTS:	No
PCR MAJORITY:	Yes

PREREQUISITE:	Successful completion of third year clerkships.
SUR.M12:	Roy Powell, M.D., Ronald Freeman, M.D. – Renaissance Plastic Surgery 4030 Riverside Park Blvd., Macon, GA 31210 Contact Kathy Stuart 478-474-2200
SUR.S12:	John Paletta, M.D. Contact – Patty 912-355-8000 or Debbie Brickner, Coordinator, Undergraduate Medical Education 912-350-8076

DESCRIPTION:

The student is assigned to a plastic surgery team. The goal is to provide a comprehensive experience in plastic surgery. This would include preoperative evaluation, radiographic diagnosis, etc.

OBJECTIVES:

- To provide a well-rounded exposure to the specialized care of plastic surgery and the common problems encountered.
- To improve acumen in history taking, physical examination, and diagnostic modalities as applied to surgery.
- To participate in operations to improve skill, knowledge, and technique of surgical procedures.
- To learn to evaluate preoperatively the status of the patient as regards his ability to withstand the contemplated procedure and anesthetic.
- To assist in postoperative care.

EVALUATION:

The Surgery Faculty, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

HAND SURGERY

SUR.M13

DURATION:	4 weeks
ENROLLMENT:	Maximum 1 student
VISITING STUDENTS:	No
PCR MAJORITY:	Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.M13: Waldo Floyd, III, M.D., John Sapp, M.D., Guy Foulkes, M.D.
Contact Mary Witherington 478-633-1063

Not available on Savannah Campus

DESCRIPTION:

The student is assigned to a hand surgery team. The goal is to provide a comprehensive experience in hand surgery. This would include preoperative evaluation, radiographic diagnosis, etc.

The student will become familiar with the operative approach to hand problems. The degree of responsibility assumed by the student will be determined by progress made during the clerkship.

OBJECTIVES:

- To provide a well-rounded exposure to the specialized care of hand surgery and the common problems encountered.
- To improve acumen in history taking, physical examination, and diagnostic modalities as applied to surgery.
- To participate in surgical cases so as to improve skill, knowledge, and technique or surgical procedures.
- To learn to evaluate preoperatively the status of the patient as regards his ability to withstand the contemplated procedure and anesthetic.

EVALUATION:

The Surgery Faculty, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

PRIVATE PRACTICE OF GENERAL SURGERY

SUR.M14, SUR.S14

DURATION: 2-4 Weeks
ENROLLMENT: Maximum 2 students/site
VISITING STUDENTS: No
PCR MAJORITY: Yes

PREREQUISITE: Successful completion of fourth year surgical requirements.

SUR.M14: Qualified General Surgery Practices in Georgia. Contact Mary Witherington 478-633-1063

SUR.S14: Contact Debbie Brickner, Coordinator, Undergraduate Medical Education, 912-350-8076

DESCRIPTION:

The student is assigned to a member of a private general surgical group practice in Georgia. The goal is to provide a well-rounded experience in private practice/office basis of general surgery. Each student will work in a clinical environment with group physicians who will serve as preceptors.

OBJECTIVES:

- To provide a well-rounded experience in surgery.
- To improve acumen in history taking, physical examination, and diagnostic modalities as applied to surgery.
- To scrub on surgical cases so as to improve skill, knowledge, and technique or surgical procedures.
- To learn what gross pathology is presented at surgery.
- To learn to evaluate preoperatively the status of the patient to withstand the contemplated procedure and anesthetic.
- To assist in postoperative care.
- To learn proper treatment and evaluate the results and follow-up care of surgical patients.

EVALUATION:

The Surgery Faculty, on the basis of performance, skill, knowledge, and attitude will evaluate the student. The degree of responsibility will be determined by student progress during the clerkship.

ORTHOPAEDIC MUSCULOSKELTAL RESEARCH

SUR.M15

DURATION:	2-4 weeks
ENROLLMENT:	Maximum 2 students
VISITING STUDENTS:	Yes
PCR MAJORITY:	No

PREREQUISITE: Completion of third year Surgery Clerkship.

SUR.M15: Guy D. Foulkes, M.D.
Contact Mary Witherington 478-633-1063

Not available on Savannah Campus.

DESCRIPTION:

This course is designed to provide the student with an independent research experience. The student will be actively involved in the research project design, execution, and statistical analysis. The goal will be to produce a manuscript suitable for publication in the orthopaedic, hand, literature. The research project would ideally fit into the broad categories of orthopaedic or hand surgery and can include clinical or basic science topics. Research design can be prospective or retrospective based on the time available by the student. Student should be prepared to spend time outside the parameters of the course to revise their manuscript in preparation for publication. The preceptor will be available at all steps of the process for both guidance and assistance.

OBJECTIVES:

- To provide a solid experience in research for the future specialist or primary care physician.
- To enhance the student's appreciation for the direct application of the scientific method.
- To develop an area of expertise .
- To provide experience in writing, preparation, and publication of a manuscript.
- Student is expected to present the results of their research at a local, regional, or national forum under the sponsorship of the Department of Surgery.

EVALUATION:

The student will be evaluated on the basis of performance, skill, knowledge, and attitude.

SURGICAL RESEARCH

SUR.M16

DURATION:	4 weeks
ENROLLMENT:	Maximum 1 student
VISITING STUDENTS:	No
PCR MAJORITY:	No

PREREQUISITE: Successful completion of third year clerkships.

SUR.M16: Dr. Wang, Dr. VanDeWater Contact Dr. Wang, MUSM Research Lab, Macon., GA one week prior to the start of the clerkship 478-301-2095

Not available on Savannah Campus.

DESCRIPTION:

The course in surgical research is designed to provide an independent research experience for students in the Department of Surgery. The goal is to provide a comprehensive experience in the development of research project design, execution, and reporting. The student will be afforded the opportunity to work with a senior investigator in the Department of Surgery or possibly in collaboration with a co-investigator in the Division of Basic Sciences. The types of surgical research activities, which will be available within the department, will include :

1. Detailed literature research techniques regarding surgical problems. A thorough grounding in the evaluation of the statistical data used in the surgical literature and an approach to the development of publications centering on literature review and analysis. Specific emphasis in this regard will be given to the area of clinical decision making, the construction of decision trees, the assignment of utility of outcome of surgical procedures and the computerized approach to case teaching surgical problems.
2. The area of prospective clinical research that is on-going in the department at the time with particular emphasis on nutritional studies and oncologic patient management.
3. Additionally, students may be afforded the opportunity of animal laboratory research based on specific surgical problem objectives, particularly in the area of oncology research using animals to dissect out the problem of species variability and response to chemical carcinogenesis.

OBJECTIVES:

- To provide a well-rounded base for the appreciation of research within a clinical specialty.
- To improve the student's ability to use the scientific model with regard to development of hypotheses, review of the literature, construction of problems, execution of research, collection of data, statistical analysis, conclusion, and publication.
- To develop an in-depth knowledge of the particular area of currently active surgical research as identified in the active surgical literature.
- To understand the importance of the research approach to practicing medicine and its implication for future development of physician education.

SURGICAL RESEARCH (*Objectives continued*)

- It is anticipated that students who select this elective early in the year may have an opportunity to attend and present the results of their research at a national meeting under the sponsorship of the Department of Surgery.

EVALUATION:

The Surgery Faculty, on the basis of performance, skill, knowledge, and attitude will evaluate the student.

BREAST SURGERY

SUR.S18

DURATION:	2-4 Weeks
ENROLLMENT:	Maximum 1 student
VISITING STUDENTS:	Yes
PCR MAJORITY:	Yes

PREREQUISITE: Successful completion of third year clerkships.

SUR.S18 Ray Rudolph, MD, Center For Breast Care, Suite 405, CAM Bldg., MUMC. Contact Marcia Weir at 912-350-2700

Not available on Macon Campus

DESCRIPTION:

This course involves a combination of clinical hands-on and didactic experience under the direct tutelage of Dr. Rudolph. The student will be involved in clinical exposure relating to breast disease with history taking, cancer risk assessment, breast and lymph node exams, review and evaluation of imaging studies (mammography, and ultrasonography), assessment of the patient's total disease presentation, and planning for treatment. The student will see patients in the private office setting, in clinic, and in the OR.

OBJECTIVES:

- Course will have specified learning objectives concerning knowledge, skills, and student responsibilities.
- Knowledge will be gained by one-on-one interface with Dr. Rudolph on a daily basis with constant teaching, explanations, questioning, and advice. The student will be expected to familiarize him/herself with the standard texts and literature related to breast disease and attendance at the multi-specialty Breast Tumor Board every other week.
- Skills training will be offered in breast evaluation, history taking, cancer risk assessment, breast and nodal exam, imaging interpretation and evaluation, tissue sampling with core needle and open biopsy technique, with and without ultrasound guidance, mastectomy ranging from lumpectomy to modified radical mastectomy, sentinel node sampling, and vascular access port placement.
- Responsibilities will include rounding on inpatients, examining and evaluating office and clinic patients, documenting work done, and having chart notes co-signed by the attending physician.

BREAST SURGERY (Cont'd)
SUR.S18

EVALUATION:

Course will have evaluation criteria concerning knowledge, skills, attitude, attendance, professionalism, etc.

- Methods of evaluation for the course:
 - Subjective conversations and questioning on a daily basis with the preceptor, other surgical attendings, and surgical residents. The student will be in the preceptor's presence for the majority of each work day.
 - Papers and/or presentations will be expected by the student. The student will present cases encountered in the preceptorship with adequate data researched and prepared to give a presentation on a breast related topic at one Thursday Resident teaching conference.
 - Examination will be on going with evaluation of daily interactions with the student and the preceptor, with direct feed-back between Dr. Rudolph and the student. If deemed necessary by Dr. Rudolph, a final oral examination will be given at the end of the preceptorship.

MINIMALLY INVASIVE SURGERY AND BARIATRIC SURGERY

SUR.S19

DURATION: 2-4 Weeks
ENROLLMENT: Maximum 1 student
VISITING STUDENTS: Yes with prior approval
PCR MAJORITY: Yes

PREREQUISITE: Successful completion third year clerkships.

SUR.S19: Oliver Whipple, M.D., John D. Angstadt, M.D. Savannah Colon and Rectal Surgery Suite 103, Provident Building, Savannah, GA
Contact – DeDe Herold, 912-350-8621

Not available on Macon Campus.

DESCRIPTION:

The student will be exposed to all aspects of the multidisciplinary care of bariatric patients. This will include preoperative evaluation, operative management, surgical options, inpatient postoperative care, and outpatient follow up. In addition to bariatrics the student will be exposed to all aspects of minimally invasive gastrointestinal surgery and hernia surgery.

OBJECTIVES:

- To expose the student to the care and management of the morbidly obese. This elective will also expose the student to the key principles of minimally invasive surgery.

EVALUATION:

The preceptor will evaluate patients experience on the clinical service, patient interaction, intraoperative exposure, and fund of knowledge.

SURGICAL ONCOLOGY/GASTROINTESTINAL SURGERY

SUR.S20

DURATION:	2-4 Weeks
ENROLLMENT:	Maximum 2 students
VISITING STUDENTS:	No
PCR MAJORITY:	Yes

PREREQUISITE: Successful completion third year clerkships.

SUR.S20: Steven T. Brower, MD, FACS, MUMC, Savannah
Contact 912-350-5900 or Contact Debbie Brickner, Coordinator,
Undergraduate Medical Education 912-350-8076

Not available on Macon Campus.

DESCRIPTION:

The student will be exposed to all aspects of the multidisciplinary treatment of cancer surgery including an introduction radiation oncology and adjuvant treatments after surgery. Although a significant exposure for benign and malignant GI disorders will be included, all aspects of surgical oncology including colorectal, hepatobiliary, melanoma, sarcoma, endocrine, and other sites will be covered. Aspects of newer technology of surgical treatment including advanced minimally invasive surgical techniques will be demonstrated.

OBJECTIVES:

- To provide clinical experiences on a busy cancer surgery service with specific reference to multidisciplinary treatment of cancer patients including radiation oncology and chemotherapy.

EVALUATION:

The preceptor will evaluate patients experience on the clinical service, patient interaction, intraoperative exposure, and fund of knowledge.

CLINICAL RESEARCH IN CANCER SURGERY

SUR.S21

DURATION:	4 weeks
ENROLLMENT:	Maximum 2 students
VISITING STUDENTS:	No
PCR MAJORITY:	No

PREREQUISITE: Successful completion third year clerkships.

SUR.S21: Steven T. Brower, MD, FACS, MUMC, Savannah
Contact –912-350-5900 or Contact – Debbie Brickner,
Coordinator, Undergraduate Medical Education 912-350-8076

Not available on Macon Campus.

DESCRIPTION:

This elective will provide the student a concentrated effort in the analysis of surgical oncology databases within the Department of Surgery of the Savannah campus of Mercer University School of Medicine. The student will be exposed to methods in clinical cancer research including the establishment and manipulation of relational databases, biostatistics and abstract preparation for clinical peer review journals

OBJECTIVES:

- To allow student database experience with database, statistical analysis, abstract preparation and manuscript preparation utilizing a data set of GI surgical patients.

EVALUATION:

The preceptor will work directly with the student to organize the data sets in GI Surgery and evaluate student's progress in relational databases biostatistics, abstract and scientific paper preparation.

Surgical (STICU) Critical Care/Intensive Care Unit Experience

SUR.M200

SUR.S200

Duration: 4 weeks

Enrollment: Maximum 3 students, Savannah 2 students

Prerequisite: Successful completion of third year clerkships

Macon Course Director: Dennis W. Ashley, M.D.

Savannah Course Director: M. Gage Ochsner, M.D.

Macon Contact: Senesta Corbin 478-633-1199

Savannah Contact: Debbie Brickner 912-350-8076

Course Goal:

To provide fourth year medical students an understanding of the unique aspects of critical care medicine provided in the intensive care unit setting and provide an opportunity for learning about critical care medicine through active participation in patient care in the intensive care unit setting.

General Description:

This rotation gives the student exposure to the acutely ill patient in the intensive care unit. The student will have an opportunity to manage one to two patients with the surgical critical care team. The team usually consists of medical students, residents and an attending critical care physician. Students will be exposed to a wide array of critical illness and will have the opportunity to manage respiratory failure with ventilator management, cardiac failure, etc. Students will also have the opportunity to assist with multiple procedures that are commonly performed in the intensive care unit. This is a Monday-Friday daily rotation. Students are expected to present their patients on rounds and then attend daily teaching conferences. There is no night or weekend call for this rotation.

Learning Outcome Objectives

After this rotation, students will be able to:

1. Outline the indications and criteria for admission to and transfer from an intensive care unit.
2. Actively and appropriately participate in the care of critically ill patients in an ICU setting that emphasizes a multidisciplinary team approach to patient care and values the contribution of all those participating in care of the patient.
3. Manage ICU patient airways appropriately and provide appropriate respiratory support including mechanical ventilator management.
4. Recognize and treat life-threatening conditions common in the ICU setting.
5. Provide appropriate fluid and electrolyte therapy for the critically ill ICU patient.
6. Provide appropriate nutritional support for the critically ill ICU patient.
7. Recognize, understand the basis of, and treat hemodynamic instability in the critically ill ICU patient.

Surgery ICU Learning Objectives (Cont'd)

9. Recognize the psychological aspects of critical care and critical illness on ICU patients and their families and tailor the care they provide appropriately.
10. Summarize the most common ethical issues involved in critical care medicine including patient autonomy, consent, end of life care, and withdrawal of care.
11. Participate appropriately in patient procedures performed in the intensive care setting under the direct supervision of the teaching faculty.
12. Accurately explain the pathophysiology associated with conditions and problems in the ICU patient.
13. Summarize appropriate indications for the use of blood products.
14. Diagnose and manage acute renal failure.

Duty Hours:

Macon - 8:00 AM – 5:00 PM Monday through Friday

Savannah - 6:00AM – 6:00PM 6 days a week in compliance with the 80 hr /week rule

Call: None required – available if requested by student

Expectations: Report on time. Be available for rounds, admissions, procedures throughout the day. Write a daily detailed progress note on each assigned patient. Present patients to attending and team. Attend didactic sessions. Complete assigned readings.

Evaluation: Students will be evaluated on their clinical skills by taking a pre-test and a post-test. The post-test will be used as the final grade. (Pass/Fail)

References:

- Text Book of Critical Care 4th Edition, Shoemaker, Ayres, Grenvik and Holbrook
- The ICU Book 2nd Edition, Paul L. Marino, M.D.

Appendix A: Critical Care Surgery Procedure List

Students may have the opportunity to perform or assist with the following procedures under faculty supervision. Procedure availability will be highly dependent on patient load, pathology, and team composition.

- Central venous catheter placement
- Endotracheal intubation
- Arterial blood gas specimen collection
- Enteral feeding tube placement
- Arterial catheter placement
- Mechanical ventilator management
- Total parenteral nutrition management
- Thoracentesis
- Paracentesis
- Swan-Ganz Catheter placement and data interpretation
- Foley catheter placement
- Percutaneous Endoscopic Gastrostomy
- Venacava filter placement
- Pericardiocentesis
- Percutaneous Tracheostomy