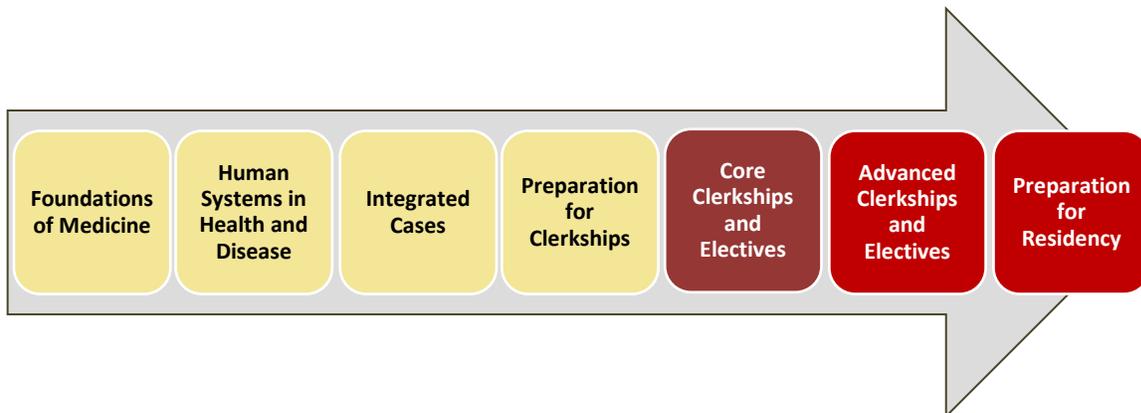


# MEDICINE



## **BCC 7160 SURGERY CLERKSHIP**

Florida State University  
College of Medicine  
Last Updated: 5/16/17

## Table of Contents

Instructors.....	4
Education Director.....	4
Clerkship Directors.....	4
Course Overview.....	5
Student Self-Study Program.....	6
Other textbooks and resources.....	7
WISE-MD Online Modules.....	7
Research Paper.....	8
“Controversies in Surgery” Paper.....	8
Patient Encounters.....	9
E*Value Data Entry Policies for Surgery.....	9
Patient Encounters Required to Meet Course Objectives.....	9
Competencies-Objectives-Assessment.....	10
COM Competencies.....	10
Course Objectives.....	10
Assessment of Competencies (Grading).....	11
Policies.....	11
Americans with Disabilities Act.....	11
Academic Honor Code.....	12
Attendance Policy.....	12
Library Policy.....	12
APPENDIX.....	13

# Instructors

---

## ***Education Director***

**Michael J. Sweeney M.D., MBA, FACS**

**Office** FSU College of Medicine

1115 West Call Street

Suite 3140-G

Tallahassee, FL 32306

**Phone** 850-645-9855

**Email** [michael.sweeney@med.fsu.edu](mailto:michael.sweeney@med.fsu.edu)

## ***Clerkship Directors***

<b>Campus</b>	<b>Director</b>
Fort Pierce	Kenneth Bridges M.D., FACS
Daytona	Harry Black M.D., FACS
Orlando	Timothy Childers M.D., FACS
Pensacola	John Tyson M.D., FACS
Sarasota	Steven Halbreich M.D., FACS
Tallahassee & Thomasville	Richard Zorn M.D., FACS
Marianna Site	Steven Spence M.D.

## Course Overview

---

Surgery is a six week experience in the care of patients suffering from conditions that are amenable to treatment by the use of the hand (surgery; fr. Greek: cheir [hand] and ergon [work], literally `handiwork`). Students will be assigned to an individual General Surgery clerkship faculty member for six weeks who will shepherd the student experience in the operating room, out-patient clinics, and office based practice. Students will have the opportunity to work one-half day with an anesthesiologist to learn airway management. It is the student's responsibility to contact the Department of Anesthesia to arrange this.

Major emphasis in this rotation will be placed upon issues and problems in General Surgery, but student familiarity with common problems in the surgical subspecialties (thoracic and cardiovascular, orthopedics, urology, otolaryngology, and neurosurgery) is also tested on the end-of-clerkship NBME clinical subject examination.

The majority of time that the student spends on the Surgery Clerkship will be spent as an apprentice to a surgeon from the clerkship faculty. This contact will provide the student with an appreciation of what a practicing community surgeon does, both in the operating room and in out-patient settings. In addition, each student will have weekly scheduled contacts with the Surgery Clerkship Director, who will oversee E\*Value entries, in order to provide breadth and depth of patient experience, avoid duplication, and assure compliance with clerkship objectives. Case-based didactic sessions will be held weekly with the Clerkship Director.

Students will take night call twice per week during the clerkship and will be expected to be a part of any surgical admission or procedure occurring during their time on call. The work week will consist of Monday through Saturday (inclusive). Note that students must adhere to the ACGME rules regarding the workweek, which include working no more than 80 hours per week, no more than 24 hours continuously, except an additional 6 hours may be added to the 24 to perform wrap-up duties, and have at least one of every 7 days completely off from educational activities.

The keys to success during this rotation lie principally in two areas:

1. Enthusiastic attendance at all clinical functions, and
2. A daily text reading program covering not only the clinical encounters of the day, but also that daily amount of text necessary to complete the core material by the end of the clerkship. The required texts are listed below.

# Student Self-Study Program

A self-study program has been designed to assist the student in addressing the core course **content** ([see Appendix](#)) from among the vast amount of surgical information available. While you are certainly free to design your own learning program, adherence to this program will result in exposure to the core material and breadth of knowledge deemed necessary for students to have acquired during this clerkship. The textbook described below will provide you with the opportunity to make the most of your surgical experience. As you are an adult learner, and beyond the spoon-feeding stage, it will be up to you to decide how many chapters in the required text should be read each week. This suggested self-study program is designed for you to complete reading the text by the end of the course. Following this program will favorably position you to take a tough end-of-clerkship NBME subject exam, that is comprehensive, timed, and has a significant failure rate.

The suggested reading program of the online textbook [Surgery by Christian de Virgilio; Paul N. Frank; Areg Grigorian](#), is as follows:

- Week 1:** [Part 1: Acute Care Surgery](#)
- Week 2:** [Part 2: Breast](#) and [Part 3: Cardiothoracic](#)
- Week 3:** [Part 4: Endocrine](#)
- Week 4:** [Part 5: Head and Neck](#)
- Week 5:** [Part 6: Hepatopancreaticobiliary](#)
- Week 6:** [Part 7: Lower Gastrointestinal](#)

When the reading program is completed, the student will have achieved familiarity with those Topics and Sub-topics listed in the [Appendix](#), that constitute the core material for Surgery.

When first confronted by Surgery, many students see only the technical side; i.e., the procedures done in the operating room. While surgical technique is unquestionably important, of equal importance to the results from operative surgery are **preoperative preparation (including diagnosis and workup) and postoperative care**. NOTE WELL: THE NBME CLINICAL SUBJECT EXAM DOES NOT TEST YOUR KNOWLEDGE OF SURGICAL TECHNIQUE! Rather, this examination concentrates on establishing a diagnosis (45-50%), principles of management (25-30%), nutritional and digestive diseases (25-30%), and understanding the mechanisms of disease (15-20%). Much of the exam is in clinical vignette form, in which you will be given data and expected to come to a diagnosis, order additional tests, or pick a therapy. Many students have seen only the drama of the operating room, failing to see this “medical” side of Surgery, and have therefore felt that the exam is “almost all medicine”. Don’t make that same mistake! The best surgeons are “Internists with Operating Privileges”!

This exam tests the application and integration of knowledge, rather than the recall of isolated facts. For these reasons, you cannot just study isolated facts, or cram at the last minute. You need to be on a schedule of programmed reading *throughout the clerkship* to be successful.

## Other textbooks and resources

Other helpful texts and resources can be found on the [CoM Maguire Library under the Surgery Subject Guide](#).

- *Surgery: A Competency\_based Companion* by Barry D. Mann 2009
- *Surgical Recall* by Lorne H. Blackbourne 2014
- *Current Diagnosis and Treatment: Surgery* by Gerard M. Doherty 2015
- *First Aid for the Surgical Clerkship* by Nitin Mishr; Latha Ganti; Matthew Kaufman 2016
- *Shelf-Life Surgery* by Stanley Zaslau 2014
- *Cope's Early Diagnosis of the Acute Abdomen* by William Silen 2005
- *Sabiston Textbook of Surgery* by Courtney M. Townsend; R. Daniel Beauchamp; B. Mark Evers; Kenneth L. Mattox 2016

Regardless of which text(s) you choose, make certain that you have mastered those *subtopics* listed in the [Appendix](#), as they are important and appear with great frequency on examinations.

## WISE-MD Online Modules

---

In addition to the textbooks cited above and found under the on the online collection of the [College of Medicine Maguire Medical Library](#), students will also be required to complete a minimum of three (3) topic modules from [WISE-MD found on the Med-U.org](#) virtual patient online learning site.

There are Case modules and Skills modules. You are encouraged to do all of these, but required to do 3 Case modules. You must select one of these (option a or b) from each of these three topic areas:

- 1) Pediatrics
  - a) Hernia and Hydrocele
  - b) Pyloric Stenosis
- 2) Vascular
  - a) Abdominal Aortic Aneurysm
  - b) Carotid Stenosis
- 3) Endocrine
  - a) Thyroid Nodule
  - b) Adrenal Adenoma

# Research Paper

---

## ***“Controversies in Surgery” Paper***

In order to familiarize you with the lifelong importance of evidence-based medicine in determining best clinical practice, and to assist you with how and where to collect evidence-based data, each student will also be responsible for writing a 1000 word paper (MS-Word, three pages, *double-spaced*, not including references) consisting of the following:

1. Identify a controversial problem in Surgery that interests you.
2. Present the pro and con evidence-based data with full references
3. Form your own conclusion and justify your position.

The paper is **not** intended to be a re-statement of a book chapter, in which there is extensive discussion of the background of the issue, and a description of the application of a Surgical Technique. Rather, you are to:

1. briefly state the nature of the controversy you have identified (one paragraph or less),
2. collect high level evidence-based data from the literature (not opinions),
3. incorporate the actual data into the paper (not the summaries and conclusions of referenced authors), and
4. reach a conclusion based upon the specific data that you included in your exposition. There should be enough evidence based data recorded in your paper to convince a third party of the validity of your conclusions.

It is insufficient to KNOW the correct conclusion, your data and analysis must PROVE it! If you need a review of what evidence-based data is, and the hierarchy of validity, please review the topic by [clicking here \(EBM\)](#).

**NOTE:** This paper is due at 5:00 pm on the last day of the clerkship. It is to be uploaded under the Surgery Project Documents tab in Student Academics. If the site is not available for any reason, then the paper needs to be emailed directly to Dr. Sweeney, the Education Director.

## Patient Encounters

---

### ***E\*Value Data Entry Policies for Surgery***

Categorization of extent of patient contact may be somewhat different on Surgery compared to other rotations. In general, the three categories of contact are:

- **Full:** focused H & P, AND participate in plans for workup/therapy (i.e., scrub on patient, discuss diagnosis and treatment with attending, etc.), AND follow.
- **Minimal:** brief contact, usually less than 10 minutes (look at x-rays, or lesion, etc.)
- **Moderate:** everything else

All surgical procedures done under general anesthesia are to be assigned to the “major” category. Please note that the same patient should not be entered more than twice (including Post-Operative visits) unless a new problem has developed. The rationale is that while I am interested in your workload, I am even more interested in your breadth of experience.

All entries **must** be completed within 48 hours of completing the course in order to avoid concerns about professionalism.

### ***Patient Encounters Required to Meet Course Objectives***

The following guidelines are offered to suggest the types and minimal numbers of patients to be encountered by students on the Surgery rotation in order to meet the objectives stated above. Failure to meet this minimal number will result in a grade of IR (Incomplete, Remediation Required), with additional assignments necessary in order to pass the course. In addition, students entering just minimally acceptable numbers of patient contacts will not qualify for consideration of Honors or Clinical Excellence designation!

1. Total number of patient encounters – **110, including 30 major operations**
2. Comprehensive surgical care continuum – **3 patients** (Includes following a patient pre-surgery, during surgery, post surgery to include initial consultation, H & P, assessment of comorbidities and surgical risk, patient education, informed consent, inter-professional communication, scrub case, post-operative planning and patient care, and discharge coordination.)
3. Gastrointestinal disease – **40**
4. General surgical patients exclusive of GI disease – **20**
5. Oncology – **20**
6. Procedures – **minimum of 20** including wound suturing (**10**), Foley catheter placement (**minimum 1 male, 1 female**) and participation in airway management/intubation (**minimum 3**)

# Competencies-Objectives-Assessment

---

## COM Competencies

a) Patient Care	b) Medical Knowledge	c) Practice-based Learning
d) Communication Skills	e) Professionalism	f) Systems-based Practice

## Course Objectives

By the completion of the Clerkship, the student will be expected to be able to:

1. Demonstrate familiarity with “core surgical knowledge”, as described in the Syllabus, including commonly encountered problems in Orthopedics, Urology Otolaryngology, Thoracic/Cardiovascular, and Neurosurgery (Competencies a, b)
2. Conduct a focused medical history, targeted physical examination, and create a meaningful differential diagnosis for surgical conditions (a, b)
3. Participate in the continuity of patient management through all phases of surgical care including pre-operative, peri-operative, intra-operative, post- operative, and post-discharge (a, c, d, e)
4. Recognize an acute surgical abdomen, and identify its probable cause (a, b)
5. Exhibit the capability to provide concise and logical patient presentations (a, b, d)
6. Develop familiarity with suturing wounds, bladder catheterization, and airway management (a)
7. Demonstrate proficiency in: scrubbing and maintaining sterile technique, dressing clean and contaminated wounds, wound closure with sutures/staples, drain management, wound debridement, and operative assistance. (a, b)
8. Appreciate ethical, cultural, and public health issues in Surgery, including traditionally underserved populations, and oversight of surgical practice at the local, state, and Federal levels (a, c, d, e, and f)
8. Exhibit facility in applying informatics to critical appraisal of the surgical literature, and to making surgical diagnostic and therapeutic decisions. (a, b, c, e)
9. Be familiar with common anesthetic agents, their administration, recovery from their usage, and develop facility with airway management. (a, b,)
10. Effectively and respectfully communicate with colleagues, staff, patients, and families, emphasizing patient centered care (a, d, e, and f)

# Assessment of Competencies (Grading)

---

The **standardized clerkship grading policy** can be found on the [Office of Medical Education](#) syllabi web page. Satisfactory student acquisition of these above listed competencies will be assessed by Clerkship Faculty, the Clerkship Director, and the Education Director. In addition to the clinical evaluation of medical knowledge, the end-of-clerkship NBME examination will also be used to assess the depth of the student's medical knowledge. Student evaluation is a result of 360 degree clinical and professionalism evaluations by clerkship faculty and clerkship directors, patient and staff evaluations, the evidence-based paper project, completion of online modules, patient encounter data, and the NBME exam score. Evaluation materials will be collated by the Education Director, and a final grade submitted that encompasses each of the evaluation metrics.

## Policies

### ***Americans with Disabilities Act***

Candidates for the M.D. degree must be able to fully and promptly perform the essential functions in each of the following categories: Observation, Communication, Motor, Intellectual, and Behavioral/Social. However, it is recognized that degrees of ability vary widely between individuals. Individuals are encouraged to discuss their disabilities with the College of Medicine's [Director of Student Counseling Services](#) and the FSU Student Disability Resource Center to determine whether they might be eligible to receive accommodations needed in order to train and function effectively as a physician. The Florida State University College of Medicine is committed to enabling its students by any reasonable means or accommodations to complete the course of study leading to the medical degree.

[The Office of Student Counseling Services](#)  
Medical Science Research Building, G146  
Phone: (850) 645-8256 Fax: (850) 645-9452

This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the:

[Student Disability Resource Center](#)  
874 Traditions Way  
108 Student Services Building  
Florida State University  
Tallahassee, FL 32306-4167  
Voice: (850) 644-9566  
TDD: (850) 644-8504  
[sdrc@admin.fsu.edu](mailto:sdrc@admin.fsu.edu)

## ***Academic Honor Code***

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/Academics/Academic-Honor-Policy>)

## ***Attendance Policy***

The College of Medicine has detailed attendance policies as they relate to each cohort and events that conflict with course schedules. See [FSUCOM Student Handbook](#) for details of attendance policy, notice of absences and remediation.

## ***Library Policy***

The [COM Maguire Medical Library](#) is primarily a digital library that is available 24/7 through secure Internet access. Library resources that support this course are available on the [Surgery Subject Guide](#) on the Library website. In addition, many of the point-of-care resources are available for full download to mobile data devices. Upon student request, items not found in the library collection may be borrowed through interlibrary loan.

# **Longitudinal Integrated Curriculum (LIC)**

---

General information and policy regarding the Longitudinal Integrated Curriculum (LIC) in Marianna can be found on the syllabi page of the [Office of Medical Education website](#).

# APPENDIX

---

Listed below are the General Topics for the Core Content for which you will be held responsible. Included within each General Topic are several Subtopics that have proved to be of frequent interest to test-writers. Once you have mastered the information included in the larger General Topic, make certain that you are familiar with the Subtopics as well.

## **1) Preoperative and Postoperative Care**

Subtopics: nutritional assessment, immunocompetence, infection risks, factors affecting wound healing, respiratory failure

## **2) Postoperative Complications**

Subtopics: atelectasis, pneumonia, pulmonary embolus, aspiration, myocardial infarction, cardiac failure, gastric dilatation, wound dehiscence, geriatric problems, such as delirium, dementia, and the propensity to fall.

## **3) Special Medical Problems in Surgical Patients**

### *a) Endocrine Disease in the Surgical Patient*

Subtopics: diabetes, hyperparathyroidism, hypothyroidism, adrenal insufficiency

### *b) Heart Disease and the Surgical Patient*

Subtopics: coronary artery disease

### *c) Renal Disease and the Surgical Patient*

Subtopics: renal failure

### *d) Hematologic Disease*

Subtopics: surgery in patients with hematologic malignancies and/or receiving anticoagulants, disorders of hemostasis; coagulation factor concentrates.

## **4) Wound Healing**

Subtopics: biochemistry of healing; factors retarding healing

## **5) Inflammation, Infection, and Antibiotics**

Subtopics: infection risk factors, necrotizing infections, antibiotic colitis, tetanus, rabies, venomous bites.

**6) Fluid and Electrolyte Management**

Subtopics: know this chapter cold; particularly acid-base balance! If given values for  $\text{HCO}_3$ , pH,  $\text{PaCO}_2$  you must be able to identify acidosis/alkalosis, metabolic/respiratory, compensated/uncompensated states.

**7) Surgical Metabolism and Nutrition**

Subtopics: complications of parenteral nutrition, desirability of enteral nutrition

**8) Anesthesia**

Subtopics: nerve injuries due to malpositioning, complications of anesthesia

**9) Shock and Acute Pulmonary Failure**

Subtopics: cardiac compressive shock, cardiogenic, neurogenic, and septic shock, ARDS, fat embolism, pulmonary embolism.

**10) Management of the Injured Patient**

Subtopics: tension pneumothorax, flail chest, aortic rupture, arteriovenous fistula, liver/pancreas injuries.

**11) Burns and Other Thermal Injuries**

Subtopics: burn complications, heat stroke, frostbite.

**12) Head and Neck Tumors**

Subtopics: salivary gland tumors, squamous cell cancers.

**13) Thyroid and Parathyroid**

Subtopics: evaluation of thyroid nodules, thyroid carcinoma, hypercalcemic crisis, secondary hyperparathyroidism.

**14) Breast**

Subtopics: Paget's disease (including clinical appearance), carcinoma during pregnancy and lactation, non-invasive carcinoma, nipple discharge

**15) Thoracic Wall, Pleura, Mediastinum, and Lung**

Subtopics: chylothorax, mesothelioma, superior vena cava syndrome, solitary pulmonary nodule, myasthenia gravis.

## **16) The Heart**

Subtopics: Acquired Heart Disease: valvular disease, aortic dissection

Congenital Heart Disease: VSD, transposition, tetralogy, PDA, coarctation.

## **17) Esophagus and Diaphragm**

Subtopics: achalasia, scleroderma, Zenker`s diverticulum, GERD, Boerhaave`s syndrome, diaphragmatic hernias.

## **18) The Acute Abdomen**

Subtopics: you learned all of this when you read Cope

## **19) Peritoneal Cavity**

Subtopics: pseudomyxoma, retroperitoneal fibrosis, workup of abdominal masses

## **20) Stomach and Duodenum**

Subtopics: gastrinoma, volvulus, Mallory-Weiss, MALT tumors, GI bleeding

## **21) Liver and Portal Venous System**

Subtopics: hepatoma, hepatic metastases, hepatic adenoma, Budd-Chiari, splenic vein thrombosis

## **22) Biliary Tract**

Subtopics: gallstone ileus, cholangitis, emphysematous cholecystitis

## **23) Pancreas**

Subtopics: cystic neoplasms, islet cell tumors, pancreatic ascites/effusion, adenocarcinoma

## **24) Spleen**

Subtopics: hereditary spherocytosis, ITP, TTP, post-splenectomy sepsis, myeloid metaplasia

## **25) Appendix**

Subtopics: know this chapter!

## **26) Small Intestine**

Subtopics: blind loop syndrome, mesenteric occlusion, carcinoid tumors, Crohn`s disease.

**27) Large Intestine**

Subtopics: polyps, volvulus, colitis.

**28) Anorectum**

Subtopics: rectal prolapse, rectal fissure, fistula-in-ano, pilonidal cyst

**29) Hernias and Other Lesions of the Abdominal Wall**

Subtopics: femoral hernia, obturator hernia

**30) Adrenals**

Subtopics: primary aldosteronism, pheochromocytoma, incidentalomas, Cushings.

**31) Arteries**

Subtopics: embolism, visceral aneurysms, thoracic outlet syndrome, renovascular hypertension, cerebrovascular disease

**32) Veins and Lymphatics**

Subtopics: deep vein thrombosis, thromboembolism, lymphedema

**33) Neurosurgery and Surgery of the Pituitary**

Subtopics: subdural and epidural hemorrhage, meningiomas, arteriovenous malformations, trigeminal neuralgia

**34) Otolaryngology**

Subtopics: facial nerve paralysis, vocal cord paralysis, inflammatory neck masses.

**35) The Eye and Ocular Adnexa**

Subtopics: glaucoma, retinal detachment, corneal abrasion, perforation

**36) Urology**

Subtopics: calculi, renal carcinoma, prostatic and testicular carcinomas

**37) Gynecology**

Subtopics: ectopics, cervical carcinoma, carcinomas of the uterus and ovary, molar pregnancy, endometriosis

**38) Orthopedics**

Subtopics: compartment syndromes, Morton`s toe, hip fractures, lumbar discs

**39) Plastic and Reconstructive Surgery**

Subtopics: basal cell, melanoma, and squamous carcinomas

**40) Hand Surgery**

Subtopics: nerve injuries, hand space infections, carpal tunnel syndrome

**41) Pediatric Surgery**

Subtopics: thyroglossal and branchial cysts, Hirschsprungs disease, Wilms tumor, neuroblastoma, esophageal atresia, undescended testicle

**42) Oncology**

Subtopics: sarcomas, Hodgkins, paraneoplastic syndromes, breast and colon chemotherapy

**43) Organ Transplantation**

Subtopics: histocompatibility testing, pharmacology of immunosuppressive drugs