



Syllabus General Surgery Clerkship

Course No.:	OM 7030	Course Title:	General Surgery
Credit Hours:	4 weeks, 4 credit hours for each rotation	Clerkship director (NW): Clerkship director (P):	Sean P. McCully, M.D. Marian Safaoui, M.D.
Term - Dates:	Variable in OMS III academic year	Level:	OMS III

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Educational Purpose/Goals

The purpose of this rotation is to provide 3rd year medical students with exposure to common surgical diseases, their diagnosis, treatment, and management. This will enable you, the student, to utilize your basic knowledge of surgical diseases and help develop problem-solving skills that will strengthen your ability in clinical decision-making as it relates to surgical patients.

Goals

1. To provide exposure to the field of surgery in both an inpatient and outpatient setting.
2. Understand the anatomy, physiology, and pathology of surgical diseases.
3. Learn the pre-operative and post-operative management of the surgical patient.
4. Learn the technical aspects of general surgery.

Core Surgery Clerkship Learning Objectives

At the end of this rotation, the student should:

1. Demonstrate understanding of the diagnosis and management of common general surgical diseases. **(COMP/AOA core competencies 2, 3; Institutional outcomes 1, 2)**
2. Demonstrate understanding of when operative versus nonoperative therapy is indicated. **(COMP/AOA core competencies 1, 2, 3, 6; Institutional outcomes 1, 2, 7, 8)**
3. Demonstrate understanding of the risks and benefits of various surgical procedures. **(COMP/AOA core competencies 2, 3, 6; Institutional outcomes 1, 2, 7)**
4. Demonstrate the ability to obtain an accurate history and perform an accurate physical examination of the surgical patient. **(COMP/AOA core competencies 2, 3; Institutional outcomes 1, 2)**
5. Demonstrate the preoperative and postoperative evaluation of the surgical patient **(COMP/AOA core competencies 2, 3; Institutional outcomes 1, 2)**
6. Demonstrate the evaluation of the acute surgical patient. **(COMP/AOA core competencies 2, 3; Institutional outcomes 1, 2)**
7. Demonstrate the ability to prepare a focused surgical SOAP note. **(COMP/AOA core competencies 2, 3, 4, 5; Institutional outcomes 1, 2)**
8. Demonstrate the ability to prepare and deliver an oral focused surgical presentation. **(COMP/AOA core competencies 2, 3, 4, 5; Institutional outcomes 1, 2, 3, 4)**
9. Demonstrate the development of differential diagnoses for surgical presentations. **(COMP/AOA core competencies 2, 3; Institutional outcomes 1, 2)**
10. Demonstrate understanding of fluid resuscitation of the surgical patient as well as how to write accurate fluid orders. **(COMP/AOA core competencies 2, 3; Institutional outcomes 1, 2)**
11. Demonstrate the ability to write preoperative and postoperative orders on a surgical patient. **(COMP/AOA core competencies 2, 3, 4, 5; Institutional outcomes 1, 2)**
12. Demonstrate understanding of the clinical, laboratory, and radiologic resources used for diagnosing general surgical diseases. **(COMP/AOA core competencies 2, 3, 6, 7; Institutional outcomes 1, 2, 7)**

13. Demonstrate the understanding of electrolyte management of the surgical patient as well as how to recognize and correct electrolyte abnormalities. **(COMP/AOA core competencies 2, 3; Institutional outcomes 1, 2)**
14. Demonstrate the basic principles of surgical technique such as scrubbing, gowning, and gloving, suturing, dressing changes, central line placement, chest tube placement, nasogastric tube placement, and Foley catheter placement. **(COMP/AOA core competencies 2, 3; Institutional outcomes 1, 2)**
15. Demonstrate effective communication with the surgical team, attendings, residents, physician assistants, nurse practitioners, nurses, ancillary personnel, etc. **(COMP/AOA core competencies 1, 2, 3, 4, 5, 6, 7; Institutional outcomes 1, 2, 3, 4, 8)**

Expectations of Rotation

During this rotation, the student is expected to do the following:

1. Function as an essential member of the surgical team.
2. Report to the hospital daily. If you are going to be late or absent, you must notify the resident or attending that you are assigned to and the COMP Clinical Education Department.
3. Report to the resident or attending physician you are assigned to daily. They will assign patients for you to take care of during your rotation.
4. Round on your patients daily. Write progress notes and orders as allowed by hospital policy, the resident, or the attending physician.
5. Notify the resident or attending physician of any change in the condition of your patient. Also notify them of any abnormal laboratory or radiological findings.
6. Scrub in on all cases assigned to you by the resident or attending physician.
7. Meet the patient in the preoperative area and escort the patient to the operating room as directed by your supervising physician. Whenever possible, you should be in the room with the patient during the induction of anesthesia. You should also follow the patient to the recovery room after surgery.
8. **Read about your assigned cases prior to going to the operating room.** This should be done in detail the night before and can be refreshed on the day of surgery. You **WILL** be asked questions on the anatomy, physiology, and pathology of the cases you are assigned.
9. **Attend all educational conferences and grand rounds** as required by the resident or attending physician.
10. Be present for all on-call days. If you are going to be late or absent, you must notify the resident or attending that you are assigned to and the COMP Clinical Education Department.
11. Check with the night intern or resident staff daily to see if your patients had any complications during the night.
12. Read about the anatomy, physiology, and pathology of the surgical diseases encountered in the required textbooks.
13. **Complete the assigned WISE-SURGERY modules.**
14. Complete the assigned reading.
15. Perform a history and physical examination on a surgical patient.
16. Apply osteopathic principles and practices to every surgical patient.

Required Educational Assignments

Documentation

1. PATIENT ENCOUNTERS

Students are required to document each patient encounter in a case log that will be provided during didactic week. At the end of the rotation, the completed case log must be submitted to the COMP Department of Surgery (DOS). **Failure to submit the log will count as failure to complete the clerkship.**

2. PROCEEDURES

Students required to document procedures attended/performed in a procedure log that will be provided during

didactic week. At the end of the rotation, the completed procedure log must be submitted to the COMP DOS.

3. OPERATIONS

Students are required to document each operation that they participated in or observed in a surgery log that will be provided during didactic week. At the end of the rotation, the completed surgery log must be submitted to the COMP DOS.

4. WISE-SURGERY

You will be participating in the WISE-SURGERY on-line program, a standardized surgical curriculum across the different rotation sites. These lectures are specifically designed for the 3rd year medical student and are developed and given by nationally recognized surgical faculty. You will be required to complete the following 22 on-line WISE-SURGERY core surgery modules to successfully pass the rotation.

WISE-SURGERY CORE MODULES

1. Abdominal Aortic Aneurysms
2. Adrenal Mass
3. Anorectal Disease
4. Appendicitis
5. Bariatric
6. Bowel Obstruction
7. Breast Cancer
8. Burn Management
9. Carotid Stenosis
10. Cholecystitis
11. Colon Cancer
12. Diverticulitis
13. Hypercalcemia
14. Inguinal Hernia
15. Lung Cancer
16. Pancreatitis
17. Pediatric Hernia
18. Pediatric pyloric stenosis
19. Skin Cancer
20. Thyroid Nodule
21. Trauma Resuscitation
22. Venous Thromboembolism

WISE-SURGERY SKILLS MODULES

These are skills modules to help you on your rotation.

- Advanced Communication Skills: Empathy
- Advanced Communication Skills: Implicit Bias
- Best Practices
- Epidural Placement Technique
- Foley Catheter Placement
- IV Placement
- Phlebotomy
- Surgical Instruments
- Suturing and Instrument Tie
- Two-handed Knot Tie

WISE-SURGERY ULTRASOUND MODULES

- Ultrasound Basic Principles

- Ultrasound: ABI
- Ultrasound: Abdominal Aortic Aneurysm
- Ultrasound: Breast
- Ultrasound: Cholelithiasis/Cholecystitis
- Ultrasound: E-Fast Exam
- Ultrasound: For Vascular Access
- Ultrasound: Thyroid
- Ultrasound: Venous

Case Conference/Case Presentation/Case Study

1. You are required to present ONE surgical history and physical examination for a grade by your preceptor.
2. Although not required, students should make every effort to present a complete disease specific History/Physical Examination, Labs/Imaging, Diagnosis, Operation Performed, and Complications/Outcome based on a patient experienced during the rotation. This should be presented in 15-30 minutes as allowed or instructed by the attending.

Recommended Procedure List (to see or do)

PATIENT ENCOUNTERS: You will be exposed to a variety of cases based on your rotation site and preceptor. These include but are not limited to general surgery, trauma surgery, colorectal, surgical oncology, cardiothoracic, bariatric, vascular, head and neck, urology, plastics, orthopedics, trauma, and obstetrics/gynecology. Please make sure you read up on the specific cases that you are encountering.

Core Topics of Study

See Required Educational Assignments.

Clinical Faculty

Students are assigned to specific credentialed clinical faculty/preceptors at their core clinical site.

Sean P. McCully, M.D. Assistant Professor of Surgery and Surgery Clerkship Director (NW)

Appointments available by email at smccully@westernu.edu

Marian Safaoui, M.D. Associate Professor of Surgery and Surgery Clerkship Director (P)

Appointments available by email at msafaoui@westernu.edu

Instructional Methods

Scheduled rotation time will be used for supervised patient care, case presentations and independent studying.

Texts and Media

It is strongly recommended that students spend approximately 10 hours per week reading independently. Students should not rely solely on the review books to be adequately prepared for the rotation as they do not provide the knowledge base needed to successfully pass the rotation and the examinations.

Required Texts:

Essentials of General Surgery and Surgical Subspecialties 6th Edition by Peter Lawrence.

Required chapters include:

- Chapter 1 Perioperative management
- Chapter 2 Fluids and electrolytes
- Chapter 3 Nutrition
- Chapter 4 Surgical bleeding
- Chapter 5 Surgical shock
- Chapter 6 Surgical critical care
- Chapter 7 Wound and wound healing
- Chapter 8 Surgical infection

OR

Current Surgical Diagnosis and Treatment 15th Edition by Gerard M. Doherty (available free on-line through the library as an electronic resource via AccessMedicine).

Required chapters include:

- Chapter 1 Approach to the surgical patient
- Chapter 2 Training, communication, and professionalism & system based practice
- Chapter 3 Preoperative preparation
- Chapter 4 Postoperative care
- Chapter 5 Postoperative complications
- Chapter 6 Wound healing
- Chapter 7 Power sources in surgery
- Chapter 8 Inflammation, infection, and antimicrobial therapy in surgery
- Chapter 9 Fluid and electrolytes
- Chapter 10 Surgical metabolism and nutrition
- Chapter 12 Shock in surgical patients
- Chapter 14 Management of the injured patient
- Chapter 23 Acute abdomen

SUPPLEMENTAL REVIEW RESOURCES

1. Surgical Recall
2. Dr. Pestana's Surgery Notes
3. Anki
4. OnlineMedEd
5. UWorld qbank
6. Amboss qbank

Surgical textbooks and handbooks (for reference only)

1. Schwartz's Principles of Surgery (Surgical textbook available on-line)
2. Sabiston's Textbook of Surgery (Surgical textbook available on-line)
3. The Washington Manual of Surgery (Surgical handbook)

NOTE: Individual preceptors may include other resources. You will be notified of these resources by each preceptor.

Rotation Format, Evaluation, Grading, and Student Feedback

Additional information is located in the Clinical Education Manual at:
<https://www.westernu.edu/media/osteopathic/pdfs/cem.pdf>

Rotation Schedule

Each site will provide students with a schedule on their first day of the rotation. These schedules are rarely available prior to the start the rotation. It is solely your responsibility to read and understand all information provided to you by the site. Some sites have additional requirements above and beyond those set forth by the College of Osteopathic Medicine.

Evaluations:

The evaluation of the student is based upon, but not limited to the following:

1. Knowledge of the surgical disease, pathology, and management for assigned patients.
2. Knowledge of the diagnosis and treatment of common surgical diseases.
3. Knowledge of surgical skills related to assigned patients.
4. Presentation of assigned patients on daily rounds.
5. Completion of paperwork (history and physicals, progress notes, orders, etc.) on assigned patients.
6. Performance of an independent presentation as assigned by the resident or attending physician.
7. Professionalism and rapport with patients, residents, attendings, and ancillary staff.
8. Attendance at lectures, conferences, and meetings.
9. Submission of a completed case log and procedure log to the COMP Department of Surgery.
10. **Failure to submit case logs will count as a failure to complete the clerkship.**

General Policies

Policy on Disability Accommodations: To obtain academic accommodations for this rotation, students with disabilities should contact the Harris Family Center for Disability and Health Policy and the Clinical Education Department within 10 days of the beginning of the system. The Harris Family Center for Disability and Health Policy can be reached at (909)469-5441 or via email at disabilityaccommodations@westernu.edu

Remediation Policy: Refer to the Clinical Education Manual.

Attendance Policy: Refer to the Clinical Education Manual.

Academic Dishonesty: Complete confidence in the honor and integrity of the health professions student and the health care professional is essential. Such confidence depends entirely on the exemplary behavior of the individual health care provider in his or her relations with patients, faculty, and colleagues. Strict honesty as a personal way of life should be nurtured during the period of education for professional service. The student shall conduct all aspects of his or her life with honor and integrity. This includes accountability to oneself and to relationships with fellow students, future colleagues, faculty, and patients who come under the student's care or contribute to his or her training and growth, and members of the general public. This applies to personal conduct that reflects on the student's honesty and integrity in both academic and non-academic settings, whether or not involving a University sponsored activity. Upon accepting admission to the University, each student subscribes to and pledges complete observance to the Standards of Academic and Professional Conduct as outlined in the University Catalog for each academic program. A violation of these standards is an abuse of the trust placed in every student and could lead to suspension or dismissal.

WU INSTITUTIONAL OUTCOMES	Health Professional Education
1. Critical Thinking	The graduate should be able to identify and solve problems that require the integration of multiple contexts when performing patient care.
2. Breadth and Depth of Knowledge in the Discipline/Clinical Competence	The graduate should be able to perform appropriate diagnostic and therapeutic skills, to apply relevant information to patient care and practice, and to educate patients regarding prevention of common health problems.
3. Interpersonal Communication Skills	The graduate should be able to effectively use interpersonal skills that enable them to establish and maintain therapeutic relationships with patients and other members of the health care team.
4. Collaboration Skills	The graduate should be able to collaborate with clients and with other health professionals to develop a plan of care to achieve positive health outcomes for their patients.
5. Ethical and Moral Decision Making Skills	The graduate should be able to perform the highest quality of care, governed by ethical principles, integrity, honesty, and compassion.
6. Life Long Learning	The graduate should be able to engage in life-long, self-directed learning to validate continued competence in practice.
7. Evidence-Based Practice	The graduate should be able to utilize research and evidence-based practice and apply relevant findings to the care of patients.
8. Humanistic Practice	The graduate should be able to carry out compassionate and humanistic approaches to health care delivery when interacting with patients, clients, and their families. They should unfailingly advocate for patient needs.

COMP/AOA CORE COMPETENCIES	Competency: Osteopathic Medical Students are part of an educational continuum that leads to residency and the curriculum provides the foundation for the following outcomes:
1. Osteopathic Philosophy and Osteopathic Manipulative Medicine	Residents are expected to demonstrate and apply knowledge of accepted standards in Osteopathic Manipulative Treatment (OMT) appropriate to their specialty. The educational goal is train a skilled and competent osteopathic practitioner who remains dedicated to life-long learning and to practice habits in osteopathic philosophy and manipulative medicine.
2. Medical Knowledge	Residents are expected to demonstrate and apply knowledge or accepted standards in clinical medicine in their respective specialty area, remain current with new developments in medicine, and participate in life-long learning activities, including research.
3. Patient Care	Residents must demonstrate the ability to effectively treat patients, provide medical care that incorporates the osteopathic philosophy, patient empathy, awareness of behavioral issues, incorporation of preventative medicine, and health promotion.
4. Interpersonal and Communication Skills	Residents are expected to demonstrate interpersonal/communication skills that enable them to establish and maintain professional relationships with patients, families, and other members of health care teams.
5. Professionalism	Residents are expected to uphold the Osteopathic Oath in the conduct of their professional activities that promote advocacy of patient welfare, adherence to ethical principles, collaboration with health professionals, life-long learning, and sensitivity to a diverse patient population. Residents should be cognizant of their own physical and mental health in order to effectively care for patients.
6. Practice-Based Learning and Improvement	Residents must demonstrate the ability to critically evaluate their methods of clinical practice, integrate evidence-based medicine into patient care, show an understanding of research methods, and improve patient care practices.
7. Systems-based Practice	Residents are expected to demonstrate an understanding of health care delivery systems, provide effective and qualitative patient care within the system, and practice cost-effective medicine.

COMPARISON OF OUTCOMES STANDARDS: WU AND COMP	WU	COMP
Critical Thinking	1	1, 2, 3, 6
Breadth and Depth of Knowledge in the Discipline/Clinical Competence	2	1, 2, 3, 4, 5, 6, 7
Interpersonal Communication Skills	3	4
Collaboration Skills	4	4
Ethical and Moral Decision Making Skills	5	1, 3, 5, 6
Life Long Learning	6	1, 2, 3, 6, 7
Evidence-Based Practice	7	1, 2, 3, 6, 7
Humanistic Practice	8	3, 4, 5

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