

Medical Education

UPDATES
BEST PRACTICES
INNOVATIONS
INSIGHTS
TRAINING
CHALLENGES
Cincinnati Medicine

University of
CINCINNATI

Course Number: 26980373
Course Title: Surgery Core Clerkship

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Clerkship Overview/What will I Learn From This Experience?

The goal of the Department of Surgery is to provide a learning environment in which medical students can acquire the skill set and knowledge to function effectively as a physician upon graduation from the University of Cincinnati College of Medicine. Appropriate resources and structured interaction with Department of Surgery faculty and house staff will be provided, but it is critical that students take ownership and responsibility for their own learning. Those students who are motivated and proactive towards their learning opportunities will maximize their educational experience.

In addition to acquiring a solid cognitive base of surgical pathophysiology in conjunction with diagnosis and management of the surgical patient in the emergent and non-emergent setting, it is our mission to emphasize the development of clinical problem-solving skills during the clerkship. These clinical reasoning skills will be actively taught in the classroom setting with faculty directed interactive sessions. Students are encouraged to actively pursue obtaining this vital skill set in the clinical setting as well.

A formal feedback session discussing the collective reviews from faculty and house staff with whom the student has interacted will be held with the Clerkship Director mid-rotation. Students are encouraged to actively seek feedback from house staff and faculty they work with on an ongoing, daily basis.

This clerkship has been designed to teach the fundamentals of surgical art and science to 3rd year medical students, with the full knowledge that a majority of students will not pursue a surgical career. A thorough knowledge of surgery is needed for the expert practice of nearly all medical disciplines and students are encouraged to maximize their educational experience regardless of their anticipated career choice.

Student Learning Outcomes*

- Gather appropriate and accurate patient history.
- Perform appropriate patient exam for the presenting problem/reason for visit.

- Generate an appropriate problem-based differential diagnosis and plan.
- Communicate effectively with patients of different backgrounds
- Communicate patient information to the clinical team (e.g. written and oral form).
- Follow through on the appropriate diagnostic and therapeutic action plan.
- Collaborate with an inter-professional health care team.
- Demonstrate a commitment to lifelong learning by developing your knowledge and skills outside of the traditional learning environment.
- Demonstrate professional behavior in clinical interactions (e.g. empathy, attire, punctuality, motivation, reliability).

**Please note that the outcomes are aligned with the Entrustable Professional Activities (EPA's) as defined by AAMC. For more information, see https://store.aamc.org/downloadable/download/sample/sample_id/63/*

Student Learning Outcomes Specific to this clerkship

Students should be able to describe the fundamentals of pathophysiology of surgical disease and in detail describe clinical presentation, diagnostic modalities, differential diagnoses, staging and classification, management algorithms, non-operative and operative treatment risks and benefits and long-term outcomes.

The following is a detailed list of specific surgical diseases that should be mastered prior to completion of the surgical clerkship. Interactive lectures and practical sessions will cover many of the topics, but it is the responsibility of the student to take ownership of their education and prepare for lectures and practical sessions before the actual session.

1. Management of common surgical emergencies
 - a. Pneumothorax
 - b. Arterial bleeding
 - c. Compartment Syndrome
 - d. Shock/Resuscitation (trauma and/or sepsis)
 - e. Abscess/skin infections
 1. Simple abscess
 2. Perirectal/perianal abscess
 - f. Necrotizing fasciitis
2. Abdominal crises
 - a. Appendicitis
 - b. GI bleed (workup and management)
3. Preoperative risk assessment
4. Trauma
 - a. Resuscitation
 - b. Penetrating and nonpenetrating injury
 - c. Neurologic
 1. EDH, SDH, shear injury
 2. Brain death – definition and exam
5. Endocrine
 - a. Thyroid
 - b. Parathyroid
 - c. Adrenal

6. Breast
 - a. Benign disease
 - b. Malignant disease
7. Esophagus
 - a. Dysmotility
 - b. Cancer
 - c. GERD
8. Stomach
 - a. PUD
 - b. Obesity
9. Small bowel obstruction
10. Colon cancer
11. Colitis
 - a. Diverticulitis
 - b. Inflammatory bowel disease
 - c. Ischemic colitis
 - d. Toxic megacolon
12. Perianal disease
 - a. Fissures
 - b. Fistulas
 - c. Abscess
13. Hepatobiliary
 - a. Benign and malignant tumors
 - b. Portal hypertension and liver transplant
14. Gallbladder disease
 - a. Cholecystitis and cholelithiasis
 - b. Choledocholithiasis
15. Pancreas
 - a. Acute and chronic pancreatitis
 - b. Benign and malignant tumors
16. Hernia
17. Cardiac surgery
 - a. Ischemic disease
 - b. Valvular disease
18. Lung cancer
19. Vascular
 - a. Signs of ischemia
 - b. Acute and chronic disease
 - c. Aneurysms and Dissections
20. Pediatric surgery
 - a. Appendicitis
 - b. Hernia
 - c. Pyloric stenosis
 - d. Malrotation

How can I make the most of this experience?

It is vital that students remain proactive and show initiative in their involvement with his/her assigned surgical team and the assigned tasks.

The operative experience has the potential to be an unforgettable educational or frustrating experience for the 3rd year medical student. Students should NOT expect to perform part of the procedure and should NOT judge the quality of their experience based on the number of oral questions answered correctly. It is crucial to prepare in advance of the operation with a thorough understanding of the pathophysiology of disease, anatomic intricacies and details of the operation. Even emergent cases have brief windows to prepare prior to arrival to the OR. Your senior and junior house staff can assist you in finding the best resources for this.

During the operation, intelligent questions allow not only an opportunity for faculty interaction and teaching, but for an unparalleled medium for learning surgical disease and anatomy.

Required/Optional Readings

- ✓ **Required**
 - none
- ✓ **Optional**
 - Lawrence Textbook of General Surgery

Clerkship Resources

- Online/Web-based
 - Clinical Key: <https://www.clinicalkey.com/#!/>
 - Department of Surgery:
<http://surgery.uc.edu/content/Education/Education%20Medical%20St.html>
 - Aquifer: <http://www.med-u.org/>
 - UC COM Student Handbook: <https://med.uc.edu/education/medical-student-education/office-of-medical-education/student-handbook>

Methods of Instruction

Case Based Instruction/Learning	Conference
Discussion, Large Grp (>12)	Peer Teaching
Independent Learning	Clinical Experience - Inpatient
Lecture	Team-Based Learning (TBL)
Patient Presentation-Learning	Ward Rounds
Clinical Experience-Ambulatory	Patient Presentation-Faculty
Simulation	Preceptorship
Discussion, Small Grp (<12)	Journal Club
Mentorship	

Description of Instructional Methods

Teaching is done in the lecture hall both in a didactic manner and interactive case-based manner. Daily bedside teaching is done in a formal manner on attending rounds as well as regularly by residents and faculty on an ad hoc basis. Intra operative education is done at every opportunity and yield is directly related to student preparation.

Clerkship Grading

The clerkship grade is determined by student performance across 6 different categories: Medical Knowledge (MK), Patient Care-Clinical Skills (PC-CS), Patient-Care Clinical Reasoning (PC-CR), Interpersonal and Communication Skills (ICS), Practice Based Learning and Improvement & Teamwork (PBLI/T), and Professionalism (PROF).

To pass the clerkship, students must meet the threshold for Competence or Met Standard, respectively, in all of categories. If a student receives a Noncompetent (NC) in any one category (MK, PC-CS, PC-CR, ICS), the student will receive a Conditional (C) grade and will require remediation in that category, see stipulations below. If a student receives a Noncompetent (NC) in any two categories (MK, PC-CS, PC-CR, ICS) or Below Standard in either PBLI/T or PROF, the student will receive a Fail (F) grade and will need to repeat the clerkship, see stipulations below.

If a student meets the threshold for Competence or Met Standard, respectively, in all of categories they will be eligible for a grade of High Pass (HP) or Honors (H) as below:

- High Pass: meets threshold for Excellence in 2 of following 4 categories: MK, PC-CS, PC-CR, or ICS.
- Honors: meets threshold for Excellence in at least 3 of following 4 categories: MK, PC-CS, PC-CR, or ICS.

Grade Criteria				
Fail	Conditional	Pass	High Pass	Honors
NC in any 2 categories OR Below Standard in either PBLI/T or PROF	NC in any 1 category	C or Met Standard in every category	<ul style="list-style-type: none"> • Excellence in 2 of 4 categories (MK, PC-CS, PC-CR, ICS) • Met Standard in PBLI/T and PROF 	<ul style="list-style-type: none"> • Excellence in at least 3 of 4 categories (MK, PC-CS, PC-CR, ICS) • Met Standard in PBLI/T and PROF

The threshold for Competence and Met Standard for all categories is set at 70% except for the PROF category and as noted below.

Professionalism:

There is not a numerical cutoff for Professionalism that equates to Met Standard. The grading review committee will review this category to determine if the student has Met Standard. The committee will consider if any preceptor evaluations had a “minor concerns” or “major concerns” rating, as well as if there were other professionalism concerns during the clerkship such as unexcused absences, not completing required encounters/procedures, frequent tardiness, significant professionalism events, etc. After review, if a student did not meet standard, the student will receive Below Standard in this category.

Grading Specifics

Category	Item Type	Specific Item	Item Weight	Competent	Excellence
MK	Exam	NBME Shelf Exam	100%	63%	83%
PC-CS	Preceptor Eval Items	Utilize focused chart review to guide the visit	80% (20% each)	70%	92%
		Identify pertinent history elements in common presenting conditions			
		Perform a physical exam appropriate to the presenting problem or visit type			
		Identify abnormal physical exam findings			
	Exam	Knot tying	20%		
PC-CR	Preceptor Eval Items	Develop a differential diagnosis for new problems (with at least 3 diagnoses)	40% (10% each)	70%	91%
		Recommend first-line diagnostic evaluation for common conditions			
		Provide rationale for ordering studies			
		Interpret the results of basic diagnostic studies (labs and imaging)			
	Exam	Oral Exam	60%		
ICS	Preceptor Eval Items	Document an organized narrative	100% (33.3% each)	70%	92%
		Provide a well-organized oral presentation			
		Adjust oral presentation to meet the needs of the context/audience			
Category	Item Type	Specific Item	Item Weight	Competent	Standard
PBL/T	Preceptor Eval Items	Demonstrate curiosity and ask questions	90% (22.5% each)	70%	70%
		Seek evidence to advance patient care			
		Participate respectfully as part of an interdisciplinary team			
		Use feedback to improve performance			
	Assignment	Wise MD modules (completion)	10%		
PROF	Preceptor Eval Item	Standard professionalism item	100%	N/A	N/A

Evaluation Methods/Exams/Assignments

Preceptor Evaluation

The preceptor evaluation, used across all Core Clerkships, provides a consistent tool by which preceptors can evaluate you, the student, on your clinical performance in an inpatient and/or outpatient clinical sites based on the AAMC Entrustable Professional Activities. The feedback is summative for this clerkship rotation but should be used as formative for growth and development on subsequent clinical rotations and experiences. Preceptors are assessing your performance and not grading you, how the preceptor evaluation factors into the grade is based on UCCOM's clerkship grading structure described above. Students are encouraged to discuss their performance with their preceptors. However, final grade determinations are made by the clerkship director and grading review committee. Students with questions about submitted evaluations or final grades should contact the clerkship director, not the preceptor.

NBME Shelf Exam

The SHELF examination, a National Board of Medical Examiners Clinical Science Exam, is administered on the last day of the clerkship. Students must score at or above the passing score set for the clerkship to pass the clerkship. The passing score is set at the beginning of the academic year and is the most recent NBME published Hofstee score for the clerkship. If a student does not achieve this score, they will be required to remediate by retaking the NBME shelf exam. They will be awarded a 'C' (Conditional) grade until remediation is complete. If the student successfully passes the retake shelf exam, they will receive a 'P' (Pass) for the clerkship (highest grade possible). See Advancement and Retention Policy, Medical Student Handbook. If the student is not successful with the repeat examination, the student will be given an 'F' (Fail) for the clerkship and be required to repeat the clerkship. See Grading System Policy, Medical Student Handbook.

The surgery shelf exam passing score for AY 25-26 is 63%.

Mid-Clerkship Feedback

The College of Medicine dictates that all required clerkships have a formative feedback plan in place to ensure that students receive the substantive and constructive feedback necessary to remediate performance issues and improve their clinical skills prior to the conclusion of the clerkship. While these may vary per clerkship, the following requirements must be met:

- A formative feedback session will be scheduled by the clerkship coordinator at a date that is near the mid-point of the clerkship
- The student is required to complete a 'self-evaluation' and 'preceptor evaluation' with a faculty member or senior resident prior to that date, and to bring paper copies to the mid-clerkship feedback session, along with a current list of completed 'encounters and procedures'
- At the scheduled session the director/faculty/preceptor providing the formative feedback will, at a minimum, use the student 'self-evaluation' and 'preceptor evaluation' forms to provide written documentation of the feedback given
- The form will be signed and dated by both the student and director/faculty/preceptor

Required Clinical Procedures/Patient Encounters

The COM requires medical students during the M3 year to track and record documentation for

- 1) a defined set of clinical procedures that the student must perform or observe and 2) Patient encounters as specified by the EPC.

- **Procedures** required for the Surgery clerkship
 - NG Tube (Perform)
 - Male Foley (Perform)
 - Endotracheal Intubation (Observe)
 - Central Line Placement (Observe)
- **Encounters** required for the Surgery Clerkship
 - Abdominal Wall Pathology
 - Hepatobiliary Disorders
 - Large Bowel Disorders
 - Postoperative Complications
 - Postoperative Pain
 - Pre-Operative Workup/Preparation
 - Shock

- Skin and Soft Tissue Disorders
- Small Bowel Disorders

Students must complete and log, in MedOneStop (MOS), clinical procedures requirements and patient encounters. All students who are experiencing difficulty completing the required clinical procedures or documenting the required patient encounters prior to the end of the clinical rotation must contact the clerkship director and the clerkship coordinator via email at least one week prior to the end of the rotation with a detailed explanation. At that point, the director may assign an alternate means of meeting the requirements.

Students must complete and document all required assigned procedures and encounters on a clerkship by 5pm on the day before the end of the clerkship. Completing and documenting all required assigned procedures and encounters on time is part of the assessment of the Professionalism (PROF) category and failure to do so could result in a student receiving a Below Standard in Professionalism. Additionally, the grade will be marked as an "I" (Incomplete) until all patient encounters and procedures are documented.

Attendance

Any planned absence in the clinical years requires submission of an MSSF at least 2 weeks prior to the start of the clerkship. In the instance of an unplanned absence, the student will immediately notify the course director and coordinator, as well as the clinical team with whom they are working and then submit an MSSF as soon as they are able to do so.

Submission of an MSSF does not guarantee automatic approval for an absence.

Students who miss any days may be required to make up the missed time and any assignments at the discretion of the course director.

The following details the number of planned absences that may be requested by course type and length. Planned absences cannot be requested on blackout dates. M3 students should refer to the blackout calendar, which is linked to the MSSF form on MedOneStop.

Students may not exceed a TOTAL number of planned absences, as follows:

M3 courses

- 2 absences in a 4 week M3 core clerkship
- 3 absences in a 6 week M3 core clerkship
- 3 absences in an 8 week M3 core clerkship
- 1 absence in an M3 2-week specialty elective
- In a 6-week or 8-week rotation, the student may not take time in the same 4-week period as 2 other absences (i.e. cannot take all 3 absences within a 4 week continuous period)

The following items are explained in detail in the Medical Student Handbook:

- Attendance and Absences Policy, Accommodation for Religious.

End of Clerkship Grading

Release of Scores

Core Clerkship NBME shelf exam scores will be released to all students no later than the Thursday following the shelf exam (they will also be available on the NBME website then). This is to allow time for the clerkship director to review all scores and to allow for any appropriate individual student notifications.

Stipulations

In the event of the following scenarios, the following will apply:

- Student has exceeded the total number of absences per the attendance policy
 - Student will be given an 'I' (Incomplete) until the missing clinical time is completed, scheduled at the discretion of the course director. Once the make-up activities are completed, the 'I' will be changed to the appropriate letter grade.
- Student fails the NBME Clerkship Shelf exam
 - A student will be given a 'C' (Conditional) grade until the Shelf exam is retaken and passed.
 - The timing of the make-up Shelf exam will be determined in collaboration between the student, OSA, and Office of Curriculum Management and Integration.
 - If the student successfully passes the retake Shelf exam, they will receive a 'P' (Pass) for the clerkship (highest grade possible).
 - Failing the exam a second time will lead to a failure of the clerkship.
- Student receives a Noncompetent (NC) in any one category (MK, PC-CS, PC-CR, ICS)
 - The student will receive a 'C' (Conditional) and will require remediation in that category.
 - The student must remediate the clinical portion of the clerkship, with a minimum of 2 weeks of clinical remediation and a maximum length of time matching the length of the clerkship (e.g. remediation on an 8-week clerkship would be a minimum of 2 weeks with a maximum of 8 weeks). Additionally, the student may be required to remediate any assignments or assessments in that category.
 - The length of remediation required will be determined by the grading review committee based on review of the student's performance and contributors to the NC score (i.e. a student may be required to remediate a specific clinical experience within the clerkship or the entire clinical experience).
 - The timing of the remediation will be determined by the clerkship director in collaboration with OSA.
 - Upon successful remediation, the student will receive a final grade of Pass ('P').
- Student receives a Noncompetent (NC) in any two categories (MK, PC-CS, PC-CR, ICS)
 - The student will receive a 'F' (Fail) grade and will need to repeat the clerkship.
 - The student must repeat the entire clerkship, if approved by the PAC, utilizing the guidelines of the Advancement and Retention Policy.
 - When that is approved and satisfactorily completed, the student will be given a letter grade of 'P' (Pass). The 'F' will remain on the student's transcript.
- Student receives a Below Standard in either PBLI/T or PROF
 - The student will receive a 'F' (Fail) grade and will need to repeat the clerkship.
 - The student must repeat the entire clerkship, if approved by the PAC, utilizing the guidelines of the Advancement and Retention Policy.
 - When that is approved and satisfactorily completed, the student will be given a letter grade of 'P' (Pass). The 'F' will remain on the student's transcript.

If a student fails to meet a requirement (for example, not taking an exam, not completing assignments, failure to attend required clinical duties, significant professionalism concerns) without prior notification of the clerkship

director or designee will be treated as grounds for awarding a 'F' (Fail) grade for the course (see the Grading System Policy).

Grade Appeal

Should a student have cause to request a review of a final grade of 'F' (Failure) that appears on the transcript, the formal grade appeals procedure may be undertaken once final grades are issued. The formal request must be submitted by the student within five business days following the notification of the grade. The only exception to the 5-day rule is if a failing grade was received and the failing grade will lead to a mandatory Leave of Absence; in this case the appeal must occur within 48 hours of posting of the grade. A student cannot appeal a grade received for a remediation course.

Duty Hours

The following attendance limitations must be implemented and enforced for all clinical experiences:

1. For all clinical sites (hospital, nursing home, clinic, etc.), the maximum number of required hours should not exceed 80 hours per week, averaged over each 2-week period. A written explanation must be submitted to the clerkship director explaining any 2-week period with more than 160 hours total.
2. Overnight in-house call should not be assigned more than an average of every third day and not the day before administration of the end of the clerkship examination.
3. An average of one day (24 hours) in every seven must be free of clinical responsibilities (including seminars, clinic, rounds, lectures), averaged over a 4-week period.
4. In-house consecutive duty hours cannot exceed 24+4 hours.
 - a. It is essential for medical student education that effective transitions in care occur. Four (4) additional hours after the initial 24 hours may be used for transitions of care and educational purposes. Medical students must not be assigned new additional clinical responsibilities after 24 hours of continuous in-house duty.
 - b. If medical students are assigned shifts, the students should have 10 hours off between shifts.
5. The Student Duty Hours Policy and how to report violations are to be discussed during the orientation to each clerkship.

Student Evaluation of the Course

The Office of Medical Education requires that medical students' complete evaluations for all required courses, (M1 and M2 basic science courses, core clerkships, and acting internships), and pre-clinical and clinical faculty. Providing constructive curricular program feedback is a student's professional responsibility and is essential for continuous quality improvement of the medical school curriculum.

Procedure:

1. Students will receive an e-mail informing them that an evaluation is available and the date for completion. Students will have two weeks to complete the evaluation. One email reminder will be sent the day before the evaluation is due.
2. M3 and M4 students must complete the course evaluation by 5 pm of the Friday following the last day of the course.

3. An M3/M4 student who fails to complete one mandatory evaluation will be placed on the appropriate PAC agenda for discussion. The M3/M4 student may receive a negative professionalism form from the PAC for not fulfilling this requirement.

Sample Clerkship Schedule

Clinical

- All students will rotate in the following areas:
 - Core Surgery rotation
 - Specialty Surgery Rotation
- Possible clinical assignments are at the following locations:
 - Bethesda North Hospital
 - Good Samaritan Hospital
 - The Christ Hospital
 - University of Cincinnati Medical Center
 - Veterans Affairs Medical Center
 - West Chester Hospital
- Clinical schedule varies by clinical site and rotation arrangement - see [LEO](#) and course handout for specific student assignment

Didactic

- Lecture time subject to change based on availability of speaker – students will be notified by e-mail
- Specific speaker/room assignments found in [LEO](#) and course handout
- Didactic schedule varies by clerkship rotation - see [LEO](#) and course handout for actual lecture schedule

Inclement Weather Policy

The College of Medicine does not follow the University policy for closure due to inclement weather.

Cancellation of UCCOM events and activities will be guided in part, but not exclusively, by the emergency declarations by the Hamilton County Sheriff's office. The final determination of

weather-related cancellations will be made by the College of Medicine.

Wellness/Self-Care

Student Affairs and the Center for Integrative Health & Wellness offers a number of programs on stress reduction. See <http://med.uc.edu/academicsupport> and <https://med.uc.edu/institutes/integrative/programs/mindfulness-programs>

Professionalism

As representatives of the healthcare team, our expectation is that you respect and uphold the professional behaviors expected of a physician in terms of how you conduct yourself with patients and other members of the healthcare team. Professional commendations and lapses will be noted on the rotation evaluation as well as a professional form submitted to the Office of Student Affairs and the PAC.

HIPAA

COM holds patient confidentiality and privacy to the highest standards. If you have any questions about HIPAA, direct them to your Course Director.

Remember: You are not permitted to check your personal medical record, a family member, friend, or someone for whom you are not directly involved in their care. EPIC Security audits user access and quarterly reports are sent to Dr. Phil Diller, Senior Associate Dean for Educational Affairs for follow-up.

Electronic Communications

The University of Cincinnati issues an email account to all registered students at no cost. The UC email account is the official means of communication between students, faculty and administration and all COM activities should only be conducted using University or affiliate email accounts. The COM IT Policies can be found at <http://www.uc.edu/infosec.html>.

Special Needs and Accommodations

In compliance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, the UCCOM grants reasonable and appropriate accommodations to medical students with documented disabilities. All reasonable requests will be considered. A request for academic accommodations eligibility is submitted to the Assistant Dean for Academic Support and Counseling in the Office of Student Affairs. Documentation requirements, approval and notification processes are outlined in the Disabilities policy, student handbook.

Transportation Policy

Transportation Expectation

Some mandatory activities will require students to travel to a respective preceptor's office location, an

interprofessional clinical site, or community service learning partner. All students must have access to a form of reliable transportation.

College of Medicine Policies hyperlinks (abbreviated list):

[Attendance and Absences Policy M3/4](#)

[Disabilities: Student Policies and Procedures](#)

[Dress Code](#) and [Student Placement and Clinical Practice](#)

[Duty Hours](#)

[Grade Appeal](#)

[Inclement Weather Policy](#)

[Mid-clerkship Feedback Policy](#)

[Discrimination, Harassment or Retaliation Reporting Policy](#)

[Professionalism](#)

[Required Course Evaluation Policy](#)

[Religious accommodations](#)

[Virtual Orientation and Didactic Policy for M3/4 Student](#)

For a full overview of all UCCOM policies, you can access the ***Medical Student Handbook*** at
[Medical Student Handbook - Full Overview of all UCCOM policies](#)
