University of Cincinnati

3rd Year
Surgery Core Clerkship

Course Syllabus
2015-2016

Contact Information

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**Introduction**

The University Of Cincinnati Department Of Surgery welcomes you to your core surgery clerkship. We hope the next 8 weeks will be a very invigorating and positive educational experience.

This course syllabus is designed to provide you with a detailed overview of the clerkship expectations, learning objectives, service structure, your responsibilities and priorities and policies for student evaluations and grades. It is critical that the syllabus is reviewed PRIOR TO THE START of the rotation in order to insure success during the clerkship.

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.
Clerkship Structure

The 3rd year Surgery Core Clerkship is 8 weeks in length and educates students in a variety of settings.

Orientation will be held on the morning of the first day of the clerkship. Interactive teaching sessions will be held on Wednesday afternoons. The sessions will be comprised of didactic lectures and procedure oriented sessions. Students are encouraged to prepare for classroom sessions by reading prior to the session to maximize their educational experience.

Interactive Teaching Sessions (1 hour each):

1. Adrenal
2. Anorectal Disease
3. Breast
4. Burns
5. Diverticulitis
6. Esophageal Disease
7. Gallbladder
8. Gastrointestinal Bleeding
9. Gastroesophageal Reflux Disease
10. Hernia
11. Lung Cancer
12. Orthopaedic Topics
13. Pancreas
14. Parathyroid
15. Patient Management
   a. History and Physical
   b. Wound Assessment/Wound Care
   c. Daily Presentations in Surgery
16. Preoperative Risk Assessment
17. Shock/Hypotension/Resuscitation
18. Thyroid
19. Trauma
20. Tubes/Lines/Drains
21. Ulcers

Interactive Procedure Oriented Teaching Sessions (2 hours)

1. Airway and Ventilator
**Clinical Experience**

Following orientation, there will be two 3.5 week clinical rotations.

All students will rotate on a core general surgery service for one rotation. Half of the students will rotate on a core service during the first rotation, half will rotate during the second rotation. These services include:

1. Altemeier Service (Colorectal / General Surgery), UCMC
2. Good Samaritan Hospital (Students assigned to Good Samaritan may be sent to Bethesda)
3. Heuer Service (Acute Care / General Surgery), UCMC
4. The Christ Hospital (Colorectal or General Surgery)
5. VA Medical Center
6. West Chester Hospital

Students may elect to rotate on one of the following services for their other rotation or may have a 2nd general surgery service rotation (if there is an open spot). Each subspecialty service will have an attending responsible for the student experience. These services include:

1. Burn Surgery
2. Cardiac
3. Neurosurgery
4. Orthopedic Surgery
5. Pediatric Surgery
6. Plastic Surgery
7. Surgical Oncology (Reid Service)
8. Thoracic
9. Transplant Surgery
10. Trauma
11. Urology
12. Vascular

**Clinical Expectations**

Each student will function as a member of the house staff team. Students will be responsible for:

1. Performing admission of history and physical examination
2. Writing daily progress notes
3. Participation in team change over
4. Scheduling of diagnostic tests
5. Planning discharge placement
6. Data collection
7. Participation in the operative procedure
8. Writing postoperative orders
9. Participation in outpatient surgical clinics
Again, it is vital that the student remains proactive and shows 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.

**Night Call Activity**

Each student will be on-call 3 to 4 nights during each 3.5 week surgical rotation. With two of these being on a weekend (Saturday/Sunday). On-call is required and failure to take call or lack of participation with the on-call team will result in a conditional grade and possible failure of the clerkship.

**The call schedule is not negotiable and students cannot switch among themselves. Requests for a particular weekend off must be submitted and approved by the Clerkship Coordinator /Director BEFORE the first day of the clerkship.**

Students on the following services will take call with the UCMC surgical night float team as assigned by the Clerkship Coordinator. Even if students are at a different hospital, call for the following services will be taken at UCMC. These services include:

1. Altemeier
2. Burns
3. Cardiac
4. Heuer
5. Surgical Oncology
6. Thoracic
7. Transplant Surgery
8. Urology
9. Vascular
10. VAMC
11. West Chester

Students on the remaining services (listed below) will take call with their team:

1. Christ
2. Good Samaritan
3. Orthopedic Surgery
4. Neurosurgery  
5. Pediatric Surgery  
6. Plastic Surgery  
7. Trauma

Call will begin at 6:30 p.m. and will end at 6:30 a.m. Monday – Friday.

Saturday/Sunday call will begin at 6:00 a.m. for students who take call with their team (Christ Hospital, Good Samaritan, Neurosurgery, Orthopedic Surgery, Pediatric Surgery, Plastic Surgery and Trauma). Students on these services should continue working with their team until 10:00 am the following morning.

Saturday call for students on all other services should work with their team from 6:00 am until noon on Saturday. At noon students should report to the SICU at UCMC to start their call shift. If no one from your regular team is in-house on Saturday morning then students should report to the SICU at 6:00 a.m.

Sunday call will begin at 6:00 am and will end at 6:30 a.m. At 6:30 a.m. on Monday students will return to work with their regular team leaving no later than 10:00 a.m. (West Chester students do not need to round with their regular teams the next morning).

All call shifts end at 6:30 a.m. the following morning. At this time, students are to rejoin their primary team for morning rounds, followed by cases or clinic until 10:00 a.m. at which time students are to leave all clinical duties. The 10:00 a.m. release time post-call is a requirement and is nonnegotiable. Please direct house staff or faculty to the Clerkship Director with any questions.

Much like your daytime service, maximizing the nighttime call educational experience involves being energetic and proactive. This is an invaluable experience that allows students to be more autonomous than during the regular hours of the service. Again, ask for continual feedback from residents and faculty.

The expectations of your nighttime call are similar to your regular hour service activities and include:

1. Performing admission of history and physical examinations  
2. Evaluation and management of surgical consults  
3. Participation in team change over  
4. Scheduling of diagnostic tests  
5. Data collection  
6. Participation in the operative procedures  
7. Writing postoperative orders

These expectations are NOT optional and if there are consults or operations occurring, students are required to be participating. “No one called me,” will not be accepted as a reason for missing these important educational opportunities.
Education and Learning Objectives

It is the responsibility of the service as well as the student to ensure the following objectives are met during the clinical portion of the rotation.

1. Patient Management: Students should ACTIVELY participate in the following daily tasks:
   a. Focused surgical history and physicals, with oral presentations to the senior resident or attending
   b. Progress notes and presentations on rounds
   c. Operative/procedure notes
   d. Post-operative notes
   e. Students should observe the informed consent process for procedures

2. Physical Exam Skills: To perform and understand the exam findings for:
   a. Abdominal exam
      1. Focal peritonitis
      2. Generalized peritonitis
      3. Pain out of proportion to physical exam
      4. Distention (air vs ascites)
   b. Vascular exam
      1. Carotid, abdominal aorta, femoral, popliteal, distal extremity arteries
      2. Ankle-brachial index
      3. Using a doppler (and understanding basic audible waveforms)
      4. Inguinal exam
      5. Perform exam and be able to identify hernias in the inguinal region

3. Wound Management: Demonstrate the fundamentals and proficiency with
   a. Wound description
   b. Dressing changes: exposure/participation in a variety of dressing change options for open wounds (wet to dry packing, wound vachs, etc.)
   c. Wound closure: basics of staple removal and wound closures

4. Practical/OR/Procedural: Demonstrate proficiency with:
   a. Sterile technique (gown, glove, basic principles)
   b. Wound debridement and packing
   c. Simple and subcutaneous suturing
   d. Knot tying (two-handed and instrument)
   e. NGT insertion
   f. Foley insertion

5. Imaging: Demonstrate proficiency reading and diagnosing
   a. Abdominal x-rays: distention (SBO, ileus, megacolon), free air
   b. CXR: pneumothorax, appropriate CVL placement
   c. Abdominal CT: SBO, pancreatitis, colitis/diverticulitis, appendicitis, abdominal fluid, free air
d. Ultrasound: cholecystitis, cholelithiasis

6. Drains and Tubes: Describe the fundamentals of surgical drains and tubes – their uses and management
   a. Abdominal/Other: Penrose, JP, pigtail (IR-placed),
   b. Describe the drainage from a tube (bilious, serous, serosanguinous, sanguinous, purulent) and understand the underlying significance

7. Ethical Judgment:
   a. Act in an ethical manner and identify personal challenges in this area
   b. Identify ethical issues related to patient care and health policies

8. Professionalism:
   a. Demonstrate reliability, dependability, integrity and courtesy in all learning settings
   b. Demonstrate emotional maturity and appropriately resolve tensions and conflicts
   c. Model good leadership in interactions with others

**Fundamentals of Surgery**

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

**Learning Activities**

**Interactive Teaching Sessions**

Interactive teaching sessions will be held on Wednesday afternoons. These sessions will be directed by Department of Surgery faculty and will be designed to steer away from basic PowerPoint presentations and geared more towards practical clinical application of a fundamental knowledge base of surgical disease using a case-based teaching format.

As students will be actively participating in the sessions, it is very important to read the fundamentals of the topic prior to the session.

Attendance at these sessions is mandatory and takes precedence over clinical activities. The only excused absence will be if you are post call or ill. If an absence occurs for one of these reasons you MUST contact the Clerkship Coordinator via email prior to the absence for approval. **Unexcused absences may result in failure of the clerkship.**
Grand Rounds & Curriculum Conference

These are held in the Surgical Amphitheater on Wednesday morning from 7:00-8:00 a.m. and 9:00-10:00 a.m. Attendance is mandatory except for students rotating at Good Samaritan Hospital. West Chester students should watch from the monitor at West Chester. Urology, Ortho, and Children’s have their own Grand Rounds (students rotating on these services should attend their conferences).

*Students taking call on Tuesday night are required to attend Grand Rounds and Curriculum Conference on Wednesday mornings.

Grading Policy

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three week general surgery rotation</td>
<td>25%</td>
</tr>
<tr>
<td>Three week surgical subspecialty rotation</td>
<td>25%</td>
</tr>
<tr>
<td>Rotation 1 Interactive Teaching Session Quiz</td>
<td>5%</td>
</tr>
<tr>
<td>Rotation 2 Interactive Teaching Session Quiz</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
</tr>
<tr>
<td>Standardized Exam</td>
<td>10%</td>
</tr>
<tr>
<td>Written Examination</td>
<td>25% (minimum passing grade = 58)</td>
</tr>
</tbody>
</table>

The quizzes will consist of 20 multiple choice questions. Quizzes will be given at the end of each rotation and will cover topics discussed during interactive teaching sessions and intercessions. The sole purpose of the quizzes is to ensure that students are reading about all surgical topics.

*The written shelf exam will be held on the last day of the clerkship. Students must score 58 or higher on the written shelf exam to pass the exam.

*Students must earn a 72 or higher on the written shelf exam to be eligible for high pass or honors for the clerkship.

- Any grade < 58 will be considered a failing grade on the shelf exam. A student will earn a grade of “C” for the clerkship if he/she fails the written shelf exam.
- Students are required to attend and actively participate in all activities including lectures and conferences to earn a passing grade for the clerkship.
- Students are allowed up to 2 days of excused absences during the 8 week clerkship before remediation is required. All excused absences must be cleared through the Clerkship Coordinator. Absences are only for personal illness or death in the family.
CALCULATING FINAL GRADE

Letter grades will not be confirmed until all evaluations have been submitted to the Surgical Education Office.

- **HONORS** 72 or higher on the shelf and an overall score of 90-100
- **HIGH PASS** 72 or higher on the shelf and an overall score of 85-89
- **PASS** 71-58 on the shelf **AND/OR** an overall score of 61-84
- **FAIL** 60 or below

- A student scoring < 61 on one or more clinical rotations and < 58 on the written exam will earn a grade of “F” and must repeat the clerkship.
- A student that scores < 61 on a single rotation is not eligible for HP or H for the clerkship.
- The Clerkship Director reserves the ability to modify a preceptor evaluation based on the student performance during all aspects of the clerkship.

**Course of Action**

**Conditional:** Written examinations will be taken on the date mutually agreed upon by the student and the department.

Written examinations may **ONLY** be retaken once. If the student fails a second time, he/she will have to repeat the entire 8 week clerkship.

**Failure:** Repeat 8 week clerkship and pass both the written examination and clinical rotations.

*Any student appealing a final grade will be required to notify the Clerkship Coordinator within 10 days of the final grade submission and must meet with both the Clerkship Director and the Surgery Department Chairman.*

Students must successfully complete all clinical rotations, quizzes, exams, WISE MD modules, participate in required activities, and demonstrate a high level of professionalism to achieve a passing grade on the Surgery Clerkship.