Surgery Clerkship Syllabus
2015-2016

CONTACT INFORMATION

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DESCRIPTION/OVERVIEW

The Surgery Clerkship encompasses rotations in General Surgery and the Surgical Subspecialties. The Clerkship is offered as part of the MegaBlock with the OBGYN and the Anesthesia Clerkships, with Anesthesia occurring during your Subspecialty block. General Surgery consists of 5 1/3 weeks and the Surgical Subspecialty consists of 1 or 2 rotations and the Anesthesia Clerkship combined to complete the other 5 1/3 week block.

What’s New:

The Clerkship is organized via the CANVAS course management system. Students should utilize their IU/IUPUI email accounts for communication.

CLERKSHIP GOALS AND OBJECTIVES

Clerkship Goals: The goal of this Clerkship is to provide the student with broad knowledge in surgical diseases, presentations and treatment as well as introduce the student to technical skills and the operating room environment.

Clerkship Objectives:

Upon completion of the Surgery Clerkship learners will…

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<tr>
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<th>Maps to Institutional Learning Objective</th>
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<tr>
<td>1. Demonstrate surgical skills through faculty or resident verification, including an understanding of the indications, performance steps and potential complications of the skills listed on CANVAS.</td>
<td>PC6</td>
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<tr>
<td>2. Construct a complete write-up of a patient's history and physical examination that incorporates a written outline of assessment and care-plan including a pertinent list of differential diagnoses with corresponding processes of assessment for each potential diagnosis that employs appropriate application of diagnostic laboratory and radiologic testing in patient assessment, for formal review by a faculty member.</td>
<td>PC2</td>
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<tr>
<td>3. Outline a global process of peri-operative patient care from initial consultation to final outcome that demonstrates the aspects of patient assessment, medical record and study review, medical documentation, patient consent, patient and procedure verification, pathologic study review, order writing, physiologic monitoring and resuscitation.</td>
<td>PC1</td>
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<td>4. Outline a process of self-directed learning and review of medical references that incorporates the assessment and evaluation of the medical literature related to the treatment and care of specific patient conditions that is illustrated through the presentation of patient care, diagnosis, and derived care-plans to the surgical team, regarding those patients for which students have primary responsibility.</td>
<td>PC4</td>
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<tr>
<td>5. Recognize and discuss aspects of disease-specific or symptom-specific evaluation and plan-of-care development for specified, required Clinical Encounters that incorporates review of medical knowledge, medical</td>
<td>PC2</td>
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Upon completion of the Surgery Clerkship learners will…

<table>
<thead>
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<td>literature, and aspects of surgical intervention.</td>
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<td>PC2</td>
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<td>6. Identify and demonstrate aspects of maximal barrier precautions and sterile preparation/technique in the performance of common procedural and operative skills, including Hand Washing, Gloving and Gowning, and Aseptic Technique (Intercession).</td>
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<td>MK4</td>
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<td>7. Collaborate in a small-group setting to construct a differential diagnosis for a variety of patient signs or symptoms and outline a plan of assessment to reach the clinical diagnosis utilizing the application of surgical principles applied to clinical vignettes, including conditions listed on CANVAS.</td>
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<td>MK4</td>
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<td>8. Through on-line didactic sessions, outline the diagnosis and treatment considerations regarding subspecialty surgical problems as listed in the handbook.</td>
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<tr>
<td>MK4</td>
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<tr>
<td>9. Through on-line modules, compile a knowledge base regarding surgical diseases as listed on CANVAS.</td>
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<tr>
<td>MK4</td>
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<tr>
<td>10. Critically reflect on personal performance and skill in various domains of patient assessment and care to construct a personal plan of further development, including these domains, as reflected in the clerkship Formative Feedback Process detailed on CANVAS.</td>
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<tr>
<td>PBL1</td>
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<tr>
<td>11. Construct entries into the patient medical record for Admission Notes, Progress Notes, and Outpatient notes that incorporate a written outline of assessment and care-plan, including a pertinent list of differential diagnoses with corresponding processes of assessment, for review by a faculty member.</td>
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<td>ISC5</td>
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Consult the IUSM Competencies section for a description of each competency and the corresponding institutional learning objectives.

CLERKSHIP POLICIES (Consult the IUSM Policies section for all other policies.)

The Surgery Clerkship abides by the general policies of the USM, they may be found at this link: http://msa.medicine.iu.edu/studenthandbook/

Attendance

- IUSM policy states that time off is not permitted except at the discretion of the statewide clerkship director. If circumstances arise and cause absences from required clerkship activities, students must request permission in writing. These
requests should be made as far in advance as possible by submitting the attached form to the statewide clerkship coordinator.

- The statewide clerkship director will make a determination on approving the absence based on the circumstances including the reason for the request and the student’s academic standing.
- In the case of severe, acute illness, (fever, vomiting, etc.) you need to notify your team leader/chief resident as soon as possible of your condition. Then you will need to provide the form to the Clerkship Coordinator as soon as you are able. If an illness is severe enough to warrant 2 or more days off, a doctor's note is required along with the form.

Consult the Required Clinical Clerkship Absence policy and the Adverse Weather policy prior to completing a request form.

Late or Unsatisfactory Work

It is expected that the student will meet the deadlines for completion of required work. These deadlines are set to ensure the Clerkship is run efficiently and meets the deadlines of the School of Medicine. Late assignments may be accepted if a satisfactory explanation is provided. A pattern of late assignments will risk an ID-P being assigned for unprofessional behavior.

Professionalism

Professional behavior, communication, and attire are the expectation.

Students are not permitted to take a photo of any patient for any reason.

Students should dress in professional attire. Scrubs are not to be worn to and from your Clerkship site and should be limited to the OR only whenever possible. Access to scrubs are at the direction of your Clerkship Site, not the clerkship administration.

Violations of the IUSM Honor Code, inappropriate behavior, or academic dishonesty are grounds for failure of the Clerkship.

Consult the IUSM Mission and Vision and IUSM Honor Code that provide the foundation for the culture of professionalism expected at IUSM

Duty Hour Policy

This policy is intended to address student duty hours while on clinical rotations at the Indiana University School of Medicine affiliate hospitals and clinical facilities. It is intended to maximize student learning opportunities while balancing their need for clinical experience and exposure. The intent of the policy recognizes the student's need for personal time and creates an optimal healthy, learning atmosphere.

Attending faculty physicians, resident physicians, fellows, and volunteer clinical faculty are expected to be knowledgeable and mindful of these guidelines while medical students are rotating on their respective clinical services.
- Medical students on clinical rotations must not exceed an 80 hour work week as determined on average for the rotation.

- Students must be provided at least one day off per seven day period, when averaged over the length of the rotation.

- Students must not be required to engage in educational or clinical activities for more than 28 uninterrupted hours

- In general, students must be allowed 10 hours between the end of one clinical or educational day and the next

*Moonlighting on General Surgery Clerkship is prohibited.*

**Disability:**

Any student at any IUSM campus requesting accommodations for a disability must apply to the Indiana University School of Medicine Disabilities Accommodations Committee and must register with the adaptive educational services office at the host campus. Guidelines for applying along with a list of the adaptive services offices on each campus are available in the *Student Handbook* under the heading *IUSM Disability Accommodation Policy*.

**Student Evaluation of the Clerkship**

Each student is required to complete an evaluation about the rotation and its different elements. Suggestions on improving the course are welcome.

*Students are required to complete the Rotation Evaluation in order to receive credit for the course. Failure to complete the evaluation by the last day of the rotation may result in a delay in receiving your grade and possibly an ID-P being assigned for unprofessional behavior.*

*Consult the *Evaluation of Curriculum by Students Policy* described in the Student Handbook*
LEARNING EXPERIENCES

Clinical Learning Experiences:

- Inpatient hospital rounds
  (wards/ICU)
- Outpatient Clinics
- Inpatient and Outpatient Operations
- Emergent and Elective Operations
- Overnight Call/ER Call

Participation

Students will be involved in all levels of patient care, on the wards, in the clinics, and in the operating room. Participation in the operating room depends on the type and acuity of the case, the required skill, and the student's level of preparation.

Patient Encounter Tracking

Required Encounters/Diagnoses

- Fluid, Electrolyte and Acid Base Disorders
- DVT/PE Prophylaxis/Treatment
- Wound Complications
- Abdominal Mass
- Acute Abdominal Pain
- Hernias
- Breast Pathology
- GI/Liver/Pancreas Pathology
- Trauma/ Acute Care Surgery
- Consent

Verification of Skills

- Breast Exam
- Inguinal Exam
- Abdominal Exam
- Rectal Exam
- Progress Notes
- Clinic Notes
- Admission or Post-op Orders
- History and Physical

Preparation/Time Commitment

Preparation before attending clinics and operations is mandatory. For clinics, a general understanding of common problems seen in the clinic is expected. For operations, the student is expected to know the patient’s name and history, indications for the procedure, key steps in the procedure, potential complications, and expected post-surgical course. It is assumed that the student already has the basic anatomical knowledge.
Non-Clinical Learning Experiences:
General Surgery

- Small Group Sessions/PBLs – meet twice weekly to cover the following topics
  - Complications
  - Breast Disease
  - Endocrine
  - Esophagus
  - Ulcer Disease
  - Biliary
  - Pancreas
  - Liver Disease
  - Colon

-Written History and Physical Write-up

-WiseMD Modules
  - Adrenal Adenoma
  - Anorectal disease
  - Bowel Obstruction
  - Diverticulitis
  - Hypercalcemia
  - Hernia (adult and pediatric)

Subspecialty

- Subspecialty Lectures covering Cardiothoracic, Plastics, Urology, Vascular, ENT, Ophthalmology, Orthopedics and Plastic Surgery

-Wise-MD modules for Subspecialty Surgery Rotation
  - Abdominal Aortic Aneurysms
  - Burn Management
  - Carotid Stenosis
  - Skin Cancer
  - Trauma Resuscitation

LEARNING MATERIALS AND RESOURCES

- Recommended text for general overview of surgical topics: Essentials of General Surgery (5th edition, 2012 publication date, Authors: Peter F. Lawrence, Richard M. Bell, Merrill T. Dayton, and James C. Hebert).
- Students contemplating a Surgery career should consider buying a major surgical text in addition to the above recommendation.
- Surgery eBooks are available here http://iupui.campusguides.com/surgery:
  - Scientific American Surgery (formerly ACS Surgery)
  - Current Surgical Therapy (Cameron)
  - Greenfield’s Surgery
  - Kirk’s General Surgical Operations
  - Essential Surgery Problems, Diagnosis & Management
  - Schwartz’s Principles of Surgery
  - Sabiston Textbook of Surgery
  - Plus several Subspecialty Resources
- Suturing Supplies:
  - There are a multitude of companies who offer material and instruments for the practice of suturing technique. Amazon.com may be searched for multiple options to acquire instruments, sutures and a suturing medium. One specific option that utilizes the material used in the Intercession is the SIM*Suture product from the SIM*VIVO company. Their kit for "$45 includes instruments, practice board, sutures and access to training videos; it can be ordered online at www.sim-vivo.com

- **ACS/ASE Medical Student Simulation-based Surgical Skills Curriculum**
  - The American College of Surgeons has collaborated to develop this resource for structured, uniform learning experiences relating to essential surgical skills needed by all physicians. This site is used for curricular implementation, but within it, one can find skills’ checklists and instructional pictures and videos to explain skill techniques. [http://MedStudentSimSkills.facs.org](http://MedStudentSimSkills.facs.org). The materials are free for use with the creation of a personal log-in and password.

- **American College of Surgeons-Division of Education**
  - The Division of Education houses videos and modules for resident and student education. Access to the site is free, with the creation of a user account. The site may be reached at [http://elearning.facs.org/](http://elearning.facs.org/).
  - Basic skills can be found under the “ACS/APDS Surgical Skills Curriculum for Residents,
    - Suturing, Knot Tying, Asepsis instruction, Urethral/Foley Catheterization, and Central Line insertion can be found here.

**LEARNER ASSESSMENT**

**Clinical Performance**

**Description:**

Student is evaluated by surgical faculty and residents (depending on site/service).

Evaluation is on: Data Acquisition and History Taking, Communication/Data Presentation, Developing Therapeutic Plan, Written Documentation, Professionalism, Responsibility and Attitude, Knowledge Base, Technical Skills

**Suggestions for preparation:**

- Take primary ownership of your patients. Know all test results, surgical pathology, and
radiologic procedure results. Keep up-to-date on care throughout the day and report out updates to the team. Provide daily clinical documentation of care.

- Develop a personal rapport with your patients, to the extent that they may believe you are their primary caregiver.
- Designate surgical cases the day before surgery. Read on the patient's history and presentation; examine them pre-operatively, when the opportunity allows. Research and study the related pathophysiology, relevant surgical anatomy, surgical technique, and anticipated outcomes and complications.
- Be inquisitive in the patient care settings of clinic and the operating room, without becoming a distraction to patient care-watch for inter-personal cues for interaction.
- Assist in the team's care of the patient, including assistance to nursing, respiratory therapists, wound therapists, etc.

Assessment Type 2

Description: PBL Conferences
Small group session with a leader (faculty or chief resident) and 10-15 students.

Suggestions for preparation:
Prior to meeting, students are expected to read the case scenarios, prepare answers to the queries relating to the case and be able to use the information gleaned by their self-study to solve similar case scenarios that the group leader will construct. Conferences may shift to related topics not specified in the queries, so thorough preparation is necessary.

Assessment Type 3

Description: NBME Surgical Shelf Exam

Suggestions for preparation:
The exam generally tests medical knowledge of surgical diseases. Numerous study guides are available. Participation in the Surgery Clerkship will provide some of the information, but this exam requires extensive self-study. Preparation should include multiple choice practice tests in order to help the students prepare in the manner they will be tested. This 100 question multiple choice exam covers all aspects of Surgery and surgical students are expected to read and be familiar with the care of practical problems involving general and subspecialty surgical patient problems. Subspecialty surgery usually accounts for less than 15% of the examination.
**MID ROTATION FEEDBACK**

Midterm evaluations will allow for the student and Faculty Team leader to reflect on individual student performance at the midpoint of the General Surgery component of the rotation.

As outlined on evaluation tool available on Canvas the student feedback will reflect on their performance to date on the aspects of

- completion of disease specific Clinical Encounters
- completion of required procedural skills
- review of the student's duty hours for the rotation
- interim summation of Student Encounter Feedback Forms
- global service performance.

This formal feedback session will allow for identification of the student's needed areas of improvement and goals to be accomplished by the completion of the rotation.

Prior to the noted date for completion, the student should schedule a formal meeting with their Faculty Education Team Leader in order to review this data. The student's responsibility is to present up-to-date reports to the Team Leader at the time of the meeting for items above, through printouts of their performance shown on the PXDX, along with delivery of a blank copy of the Mid- Rotation Global Assessment Form.

The completed Mid-Rotation Global Assessment Form must then be signed by both the faculty team leader and the student then uploaded to CANVAS. See calendar for due date.

**GRADING**

The final grade in Surgery is based on:

- clinical evaluations from both General and Subspecialty rotations
- participation in the small group problem solving sessions
- performance on the NBME shelf examination in Surgery

  - This examination is given 2 times over the course of the 16 week surgical block. Students taking the surgery shelf exam first include those that have participated in general surgery and subspecialty surgery during the initial 10.6 weeks of the block (group A). Students taking the shelf test 2nd are those individuals that have completed either surgical subspecialty or general surgery in the last 5.3 weeks of the block (group B).

  - **All students must pass the NBME surgical shelf exam in order to pass the course by achieving a score of 60 or greater.** A student, who earns a score of 59 points or below and has no other deficiencies in the clerkship that would manifest in a failing grade, will be assigned an Isolated Deficiency in Medical Knowledge competency domain and asked to repeat the exam. If the student takes and passes the repeat exam, the highest grade that student can earn is a “Pass” for the clerkship. If a student takes and fails the repeat exam, that student automatically fails the Junior Surgical Clerkship.
• **Final grades in surgery are weighed as follows:**

  Clinical Evaluation on General Surgery Component: 40%
  Clinical Evaluation on Surgical Subspecialties: 20%
  Final Examination: (Last day of rotation) 40%
  Evaluation in the small group conferences: Pass/Fail

• In accordance with the IU School of Medicine’s guidelines, 15% of the class will receive Honors, 35% will receive High Pass with the remaining (50%) of students falling in the Pass category unless their score falls below the 60% minimum overall score, in which case a Fail is issued.

• **Final grade assignment will be at the discretion of the Statewide Clerkship Director and does not represent an empiric average of the performance evaluations.**

• The distinction of an Honors designation will require a student to achieve an exam score greater than ½ SD above the IUSM mean.

To pass the clerkship, students must receive 60% of the total possible points in each: General Surgery, Subspecialty Surgery and Shelf Examination. Failure to earn the minimum 60% in each one will require the student to repeat the Rotation.

*Consult the IUSM Honor Code & Policies section for information about Grade Reconsiderations and Remediation.*

**CLINICAL VENUES**

The Surgery Clerkship is taught at all 9 IUSOM campuses in a variety of different venues, community, tertiary care, acute care, private practice, etc. Although the experiences will be different for students at each venue, the aim of the Clerkship is to provide comparable experiences to achieve the goals and objectives stated in this syllabus.

**IUSM HONOR CODE & POLICIES**

* IUSM Honor Code
* Academic Dishonesty
* Adaptive Educational Services
* Exam Rescheduling Policy
* Grade and Competency Appeal Process
* Medical Student Electronic Record Policy
* Guidelines for Use of Online Social Networks

* Policy Statement on Medical Students and Care of Patients
* Professional Dress Code
* Scheduling Conflicts/Request for Time Away/Religious Accommodations
* Universal Precautions
* Unprofessional Behavior, Abuse, Harassment, and Discrimination
IU SCHOOL OF MEDICINE RESOURCES:

Please note that you have access to these and many other IUSM Resources via the IUSM Resources link found on the left side of your course page in Oncourse or Canvas.

- IUSM Student Handbook
- MSA Resources for 3rd Year Students
- Ruth Lilly Medical Library

APPENDIX
Surgical Clerkship
Mid-Rotation Global Assessment Form

Date of Meeting: ________________________________
Student's Name (printed): ________________________________
Faculty's Name (printed): ________________________________
Rotation/Service: i.e. UniA Team, VA General, Urology, South Bend, etc.

Items to be covered during this meeting (check that each was discussed):

☐ Review of Progress in PXDX Clinical Encounters & Skills
   ▪ student to provide printed copy of PXDX checklist

☐ Review of Individual Student Duty Hours
   ▪ student to provide report

☐ Review of Interim compilation of Encounter Feedback Forms
   ▪ student to provide completed forms

☐ Identified Areas for Improvement (Faculty comments - required)
   ________________________________
   ________________________________

☐ Self-Assessed Areas for Improvement (Student comments - optional)
   ________________________________
   ________________________________

Date: ____________

Faculty Signature: ____________________________________________

Student Signature: ____________________________________________

(Upload completed form into your CANVAS assignment)
Surgery Clerkship Clinical Evaluation Form

Student’s Name
Date of Assessment
Rotation
Preceptor Name
Preceptor Signature

Location: Clinic Operating Room (circle one)

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<tr>
<th>ASSESSMENT SCALE</th>
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<tr>
<td>5</td>
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<td>Exceptional</td>
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<tr>
<th>CLINIC ENCOUNTER</th>
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<td>Student Self-Assess</td>
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CLINIC ENCOUNTER

Data Acquisition
Perform focused history and physicals that identifies the patient's problem.

Communication/Data Presentation
Communicates effectively with the patient and/or health care team. Presents case and data in a clear, logical, concise manner.

Therapeutic Plan
Proposes a diagnostic and therapeutic plan (including differential diagnoses) for patient, appropriate for their level of training. Rational provided for labs, diagnostic tests and/or evaluation.

Write-up
Written documentation is legible, organized and complete.

Professionalism
The student interacts with both patients and other members of the health care team in an effective and courteous manner.

OPERATING ROOM

Responsibility and Attitude
The student demonstrates initiative in participation, personal responsibility for patient care, and appropriate case preparation.

Knowledge Base
Has understanding of operative indications and rationale for procedures.

Technical Skills
Demonstrates technical skills, appropriate with level of training.

(Upload completed form into your CANVAS assignment)