



**Pacific Northwest University  
Of Health Sciences  
Years III and IV Clerkship Curriculum  
Student Clinical Rotation  
Surgery**

**Course Title:** SURGERY – SURG 701 & SURG 702

**Credit Hour:** 8 credits each block

**Rotation Length:** Two required 4-week rotations

**Prerequisites:** None

**Syllabus Components:**

1. Rotation Description, Purpose and Philosophy
2. Rotation Objectives
3. Orientation to Rotation
4. Required Activities and Assignments
5. Student Performance Evaluation
6. Recommended Resources
7. Standards of Professional Conduct
8. Tips for Successfully Completing the Rotation

*Last update: 12/30/11*

**This syllabus has been reviewed by the Curriculum Committee and Dean's Council with final approval by the Dean.**

## **Rotation Description, Purpose, and Philosophy**

The purpose of this 8-week experience is to provide the student with exposure to commonly encountered cases in Surgery. To accomplish this, the rotation provides broad exposure to both chronic and acute problems, experience in appropriate consultation, outpatient diagnostic testing, patient education and other procedures. To achieve rotation objectives, the student is expected to apply the concepts of diagnosis and management for all phases of outpatient care and, if relevant, develop a working knowledge of both inpatient and outpatient treatment modalities. Throughout the rotation, students will assume as much responsibility for patient care as is commensurate with his/her preparedness.

### **1. Rotation Objectives**

A set of learning objectives for this rotation is provided below. The objectives are intended to be a guide for the student's learning activities and serve as a baseline for assessment of the student's enhanced knowledge, skills, and professional behavior. Not all of the objectives listed below will be encountered during any single rotation. While each student is expected to further expand his/her knowledge base and to care for all assigned patient cases, he/she is also expected to avail him/herself of the educational materials provided and to master the following objectives

#### **Interpersonal and Communication Skills Objectives:**

1. Obtain through an interview, a thorough and accurate medical history of any patient, regardless of age, ethnic or socioeconomic origins. Take into account a patient's mental state, motivation for seeking treatment and ability to communicate. Employ appropriate interviewing techniques, making sure that there is full understanding between the physician and the patient.
2. Communicates effectively with attending, resident, team members and other health care professionals.
3. Documentation in medical records is legible and timely
4. Communicates appropriately and professionally to patient and family members
5. Demonstrate appropriate use of telephone, e-mail, and other communication modalities and act professionally in communicating with patients and other members of the health care team.

#### **Medical Knowledge**

During this core rotation, the student is expected to function as an integral member of a clinical team responsible for the care of patients in both inpatient and outpatient setting. At the conclusion of the rotation, the student will:

1. Demonstrate knowledge of the pathology and pathophysiology of those diseases and disorders that require surgery and are commonly seen in the hospital or in the conduct of a daily physician practice, including but not limited to:
  - a. Acute appendicitis
  - b. Chronic and acute cholecystitis

- c. Chronic and acute cholelithiasis
  - d. Common hernias
  - e. Benign and malignant diseases of the thyroid gland
  - f. Benign and malignant diseases of the colon
  - g. Intestinal obstruction
  - h. Diverticulitis of the colon
  - i. Peptic ulcer
  - j. Inflammatory bowel disease
  - k. Benign and malignant breast disease
  - l. Upper and lower GI bleeding
  - m. Skin cancers
  - n. Benign and malignant rectal disease
  - o. Benign and malignant pulmonary tumors
  - p. Peripheral vascular disease
  - q. Fluid and Electrolytes
  - r. TPN (total peripheral nutrition)
  - s. Post-op complications – wound infections
  - t. Systemic infections
  - u. Wound management
2. Demonstrate knowledge of the presenting symptoms of the above diseases and disorders.
  3. Demonstrate knowledge of the pre-operative management of patients for whom surgical therapy is selected, including restricted diet, intestinal preparations and the use of prophylactic antibiotics.
  4. Demonstrate knowledge of general and local anesthetic agents.
  5. Apply appropriate Osteopathic Principles to this group of patients.
  6. For each disease or condition listed above, the student should be able to describe/assess the following:
    - a. Presenting signs and symptoms
    - b. Physical findings
    - c. Basic interpretations of appropriate diagnostic studies
    - d. Major differential diagnoses
    - e. Management alternatives, including: treatment plans, patient education, and addressing modifiable risk factors
    - f. Possible complications
    - g. Prognosis
    - h. Follow-up care
    - i. Somatic dysfunction related to the disease/condition and the osteopathic treatment(s) for the somatic dysfunction

During the General Surgery Rotation, students are expected to develop their competencies in many basic clinical skills. While not every skill listed below can be performed during this brief rotation, the student should avail him/herself of as many of the following procedures as possible, and to seek out opportunities to perform these skills in other rotations as well.

1. Demonstrate and discuss the principles that underlie clean and sterile technique.

2. Demonstrate and discuss proper isolation technique.
3. Demonstrate ability to scrub, gown, and glove and maintain proper sterile techniques in the surgical setting.
4. Demonstrate knowledge of and proper usage of commonly used surgical instruments.
5. Perform the following simple surgical procedures:
  - a. Suturing lacerations and surgical wounds
  - b. Stapling of lacerations and surgical wounds
  - c. Removal of sutures and skin staples
  - d. Steri-Strip use in lacerations and surgical wounds
  - e. Drainage of abscesses
  - f. Placement and management of surgical dressings
  - g. Placement and management of drains (open and closed).
6. List indications for and demonstrate proper procedures for nasogastric tube.
7. List indications for and demonstrate proper procedures for urinary catheter placement.
8. Demonstrate the following methods of giving injections:
  - h. Intradermal
  - i. Subcutaneous
  - j. Intramuscular
9. Demonstrate knowledge of equipment and technique for starting IV therapy.
10. Describe and observe arterial puncture techniques.
11. Describe and observe placement of central venous line.
12. Describe and observe placement of long-term central venous catheters.
13. Demonstrate knowledge of the characteristics of the most commonly prescribed drugs, including pharmacokinetics, pharmacodynamics, indications for use, contraindications, appropriate dosage, common side effects, drug interactions, interactions with foods, potentials for abuse, cost-effectiveness and inpatient versus outpatient use.
14. Be aware of the adverse effects of drugs and drug combinations on particular patient populations, such as the elderly, children, pregnant women, nursing mothers and their infants, substance abusers, patients with allergies, and patients with chronic diseases or disorders.
15. Demonstrate similar knowledge of the over-the-counter drugs that are commonly used by patients.
16. Demonstrate ability to skillfully perform osteopathic structural examination, make diagnosis of somatic dysfunction, and perform appropriate osteopathic manipulative treatment where indicated.

**Patient Care Objectives:**

1. Demonstrate knowledge of patient-monitoring procedures to assess improvement, deterioration or change of status.
2. Demonstrate the ability to communicate effectively and interview patients and families in various clinical settings.
3. Perform complete and time-efficient physical examinations of patients. Demonstrate an ability to adapt the physical examination procedures to the patient's age and/or condition.

Include inspection, palpation, auscultation, and motion testing for systemic and musculoskeletal abnormalities.

4. Communicates effectively with attending, resident, team members and other health care professionals.
5. Documentation in medical records is legible.
6. Demonstrates the ability to integrate the principles of preventive medicine and health promotion in all interactions with patients, including lifestyle change recommendations when appropriate.
7. Demonstrates ability to develop and execute patient care plans appropriate for level of training and follows a problem oriented format (SOAP).
8. Demonstrate the ability to apply Osteopathic principles and treatment to this group of patients.

**Practice Based Learning Objectives:**

1. Demonstrates motivation and a desire to learn.
2. Demonstrates the ability to learn from practice.
3. Demonstrate the ability to understand and apply decision-making tools.
4. Describes quality assurance activities within the scope of the students clinical training
5. Demonstrates recognition of the importance of lifelong learning in medical/surgical practice.
6. Demonstrates the ability to obtain the best available evidence to answer a clinical question efficiently.
7. Demonstrate the ability to communicate evidence (including osteopathic principles and practices to patients and colleagues.
8. Seeks and responds to feedback.

**Professionalism Objectives:**

1. Demonstrates a respect for the right of the patient to be involved in the decisions about their care.
2. Demonstrates a commitment to continuity of patient care.
3. Demonstrates a respect and protection of confidential information
4. Displays a sense of responsibility and respect to patients, families, staff and peers.
3. Demonstrates cultural sensitivity.
4. Maintains a professional appearance, well-groomed, appropriately dressed.
5. Punctual in attendance, prompt and available when called upon.
6. Motivated to learn, shows appropriate assertiveness, flexibility, adaptability toward education.
7. Demonstrates appropriate attitude, cooperative, receptive to feedback.
8. Introduce self to those who you are working with, the patient, attending, resident, other physicians, nurses, staff, etc...

### **Systems Based Practice Objectives:**

1. Know where to go for help— personal and professional.
2. Demonstrates an understanding of how to make an appropriate decision relative to the health care delivery systems
3. Attends all required orientations presented by the facility and completes needed paperwork for rotation.
3. Follows policy and procedures set forth by the health care facility and departments within that facility.
4. Recognizes common methods and available resources in health care systems to ensure quality of care.

All students on rotations have been given access to MedU. For Surgery, this involves, “WISE MD”. This is a set of 15 cases that cover typical surgical patient presentations that are required for basic core knowledge of a student rotating in a surgical clerkship. “WISE-MD” was initially created to address gaps in medical student surgical education resulting from shortened hospital stays and increased use of outpatient facilities for pre and post surgical care. The modules were designed to follow the typical course of a patient from the initial presentation to the physical examination, laboratory testing and radiological imaging, preoperative preparation, surgery, and recovery. The modules include patient/physician interactions to stress the importance of professionalism and communication. As you work your way through these cases, you will become more proficient in developing differential diagnosis in addition to learning which tests to order in order to rule out that diagnosis. You are required to do any of the cases you have not encountered during your surgical rotation, however it would be to your advantage to complete all of them so that you learn what would be most likely to be covered on COMLEX 2 CE on these topics.

### **2. Orientation to the Rotation**

The rotation orientation provides an opportunity to answer questions and define roles, assess skill level and experience, set expectations, and anticipate and proactively resolve problems. The student should try to meet with the preceptor either prior to or early on the first day of the rotation. Clarifying the following details with the preceptor will help to ensure a rewarding and successful rotation:

- a. Student responsibilities on the service.
- b. Preceptor expectations of the student on the service.
- c. Goals, objectives, and the structure of the rotation.
- d. Required rotation assignments and responsibilities in the preceptor’s practice (e.g. clinics, lectures, conferences, other didactics, journal clubs, rounds, office hours, morning report).
- e. Discuss the Evaluation of Student Clinical Performance form.

### **3. Required Learning Activities, Assignments, and Responsibilities for ALL PNWU STUDENTS in order to earn credit for this rotation.**

The following activities are required for satisfactory completion of this rotation:

- a. Attend and participate in at least 70% of PNWU education day presentations (remote access is acceptable). This is a graduation requirement.
- b. Attend and participate in any other workshops, seminars, or professional development activities assigned by the PNWU Regional Dean.
- c. Present clinical case conferences, as assigned by the Director Clinical Rotations.
- d. Submit the online Student Evaluation through New Innovations. If you need instructions, please ask your PNWU or site staff.
- e. Submit Procedures Log through New Innovations.
- f. Submit a copy signed by your preceptor of the log summary (from New Innovations) at the end of this rotation.
- g. Fulfill all required responsibilities identified by the preceptor during orientation.

#### 4. Student Performance Evaluation

A student must receive a passing grade from the preceptor in order to pass the rotation. If the preceptor considers the student *Marginal*, then a remediation recommendation should be made by the PNWU Regional Dean, in consultation with the preceptor, and submitted to the Director of Clinical Rotations Dean for approval.

In addition, at the end of a required core rotation (two rotations for FM, Surgery, Pediatrics, Internal Medicine) you will be required to take an end of rotation exam. The exam will be given on the last Friday of your rotation. It is a proctored, timed exam at your core site hospital. This is an NBME exam requiring that all electronic devices, coats, hats, and other personal belongings must be left outside of the room. You will need to have a several #2 pencils with you. These exams will comprise 25% of the grade for a core rotation.

#### 5. Recommended Resources

The following resources have been identified for this rotation by the instructor of record. Note: Post-rotation exam questions are referenced to the recommended texts.

##### Recommended Texts:

*Cope's Early Diagnosis of the Acute Abdomen*. 21st Edition William Silen; Oxford, Oxford University Press

Townsend, C. (2004) *Sabiston textbook of surgery* (17<sup>th</sup> ed.), Philadelphia: W. B. Saunders. (Available on MdConsult)

Shires, T, Spencer F., Daly, J., Fischer, J., & Galloway A. (2005) *Schwartz principles of surgery* (8<sup>th</sup> ed.) New York: McGraw-Hill.

**The following have been identified as resources for ALL rotations by PNWU preceptors.**

Cooper, D., H, Krainik, A., J., & Lubner, S., J. (2007). *The Washington manual of medical therapeutics*. (32st ed.). Philadelphia: Lippincott Williams & Wilkins.

McPhee, S., J., Papadakis, M., A., & Tierney, L., M. (2007). *2007 Current medical diagnosis and*

*treatment*. New York: McGraw-Hill. Also available on AccessMedicine

Ward, R. (2003). *Foundations for osteopathic medicine* (2nd ed.). Philadelphia: Lippincott Williams & Wilkins.

Medical Dictionary (Dorland, Taber or Stedman)

Available through the PNWU Library:

PubMed ([www.pubmed.gov](http://www.pubmed.gov))

PNWU Library Catalog (<http://opac.libraryworld.com/cgi-bin/opac.pl?command=signin&libraryname=MLRC>)

MD Consult with remote access ([www.mdconsult.com](http://www.mdconsult.com))

OSTMED.DR Osteopathic Medicine Digital Repository (<http://www.ostmed-dr.com:8080/vital/access/manager/Index>)

Interlibrary loan is available to PNWU COM students at no charge. Contact the library at 509-249-7745 or at [library@pnwu.org](mailto:library@pnwu.org) for assistance. A complete list of library resources can be accessed by students by logging into the PNWU network and checking the Library page on Connections (<http://connections/Pages/Default.aspx>).

## **6. Standards of Professional Conduct**

PNWU Honor Code applies to all activities in PNWU as well as the Regional campus sites.

Students are encouraged to study together and to share their knowledge freely with one another during the learning process. During examinations, however, no assistance from other students or from outside sources is allowed, unless explicitly permitted by the PNWU office. Books, notes, and other materials must be left at the periphery of the testing area during examinations.

Professional standards required of a member of the Osteopathic profession are a requirement for passing this rotation, as is compliance with the professional standards of the hospital and outpatient offices of the student's preceptor. Students are expected to maintain high professional standards of behaviors. They should exhibit such personal characteristics as honesty and integrity, as well as to maintain patient confidentiality at all times. Unprofessional behavior may result in a failing grade in this rotation, regardless of other academic performance on this rotation, and could subject the student to dismissal from the hospital in which they are based. Professional conduct shall be evaluated by the PNWU Regional Dean through observation of and interaction with the student, his/her preceptor, other hospital attending physicians and staff.

## **7. Tips for Successfully Completing the Rotation**

Being successful on this rotation requires you to be a proactive student. Taking an interest in the specialty and becoming an active team member of the service is critical to learning in a clinical setting. Remember, the clinical learning environment differs from the classroom. You will be

“thinking on your feet” and “learning as you go.” To capitalize on “the learning moment,” seek out opportunities to ask questions and speak up appropriately.

In addition, be sure to:

1. Review the syllabus to ensure that you understand all requirements.
2. Discuss with your preceptor your previous clinical experiences and personal goals and objectives for this rotation. The rotation orientation is an opportune time to initiate this discussion and to develop positive rapport with you preceptor.
3. Clarify your preceptor’s expectations of your activities.
4. Complete your skills and procedure log as you proceed through the rotation; avoid procrastinating until the end.
5. Come prepared to take advantage of the opportunities this rotation has to offer.

*If you have any questions, contact your Site Director, Coordinator or Regional Dean.*