

**SUR 111**  
**PERIOPERATIVE PATIENT CARE**

**COURSE DESCRIPTION:**

Prerequisites: Acceptance in the Surgical Technology Program, BIO 092, CHM 094 or CHM 130 and 130A, MAT 070 and ENG 090

Corequisites: SUR 110

This course provides theoretical knowledge for the application of essential operative skills during the perioperative phase. Topics include surgical asepsis, sterilization and disinfection, and perioperative patient care. Upon completion, students should be able to demonstrate the principles and practices of aseptic technique, sterile attire, basic care preparation, and other relevant skills. Course Hours Per Week: Class, 5. Lab, 6. Semester Hours Credit, 7.

**LEARNING OUTCOMES:**

Upon completion of this course the student should be able to:

- a. Understand the principles and fundamentals of aseptic technique and adhere to these principles in gowning and gloving themselves and others.
- b. Define “surgical conscience” and its relation to the surgical technologist’s responsibility in perioperative patient care.
- c. Use aseptic technique to prepare a sterile back table set-up, mayo tray and the arrangement of supplies for a basic laparotomy procedure.
- d. To understand and apply the principles of sterilization, disinfection, and aseptic and sterile technique in the preparation and use of supplies and equipment in the OR environment.
- e. List different methods of sterilization and when they are used. Discuss advantages and disadvantages of differing methods of sterilization.
- f. To provide for patient and staff safety by understanding the use and proper functioning of OR equipment to include electro-surgical equipment, OR tables, endoscopy equipment and lasers.
- g. To understand the perioperative routines and the importance of these routines in receiving, identifying, chart reviewing, and assessing of the patient.
- h. Understand and demonstrate the principles used in positioning patients and the use of positional aids. Identify dangers of improper positioning.
- i. Demonstrate proper body mechanics when moving or transporting patient or equipment in the OR environment.
- j. Understand the principles of skin preparation and the proper methods and types of solutions used for surgical skin preps.
- k. Understand and adhere to proper draping principles in preparing for a surgical procedure.
- l. Use base knowledge and surgeon preference cards to have needed supplies ready for a basic surgical procedure. For this course exploratory laparotomy, exploratory laparoscopy, and tracheotomy are the required procedures.
- m. Understand the importance of correct handling and labeling of surgical specimens and to use the proper container depending on the specimen.

- n. Demonstrate manual dexterity and the ability to correctly use and pass instruments and supplies.
- o. Identify basic instrumentation by name, classification, and common usage. Check instruments for proper functioning and cleanliness. Separate instrument according to use, care and delicacy.
- p. Demonstrate proper procedure when doing a sponge, needle, and instrument count and understand the legal implications involved.
- q. Demonstrate safe procedures when handling drugs, solutions, syringes, and needles.
- r. Identify and safely handle various types of suture and needles used in surgery. Be able to demonstrate and describe what types of suture material and needles to be used, and the rationale for this usage.
- s. Have a basic understanding of stapling devices used in general surgery.
- t. Understand use and care of endoscopic surgical supplies to include sterile laparoscopic instruments and unsterile video accessories such as monitors, cameras, insufflators, and printing equipment.
- u. Demonstrate proper use of medical terminology in all forms of communication.
- v. Identify and use the roots and suffixes pertaining to diagnosis and surgery.

#### **OUTLINE OF INSTRUCTION:**

- I. Surgical asepsis
  - A. Historical perspectives
  - B. Basic terminology
  - C. Rules of aseptic technique
  - D. Universal precautions
  - E. Sterile conscience
- II. Cleaning, disinfection, sterilization
  - A. Sterilization vs. disinfection
  - B. Standards and practices
  - C. Types and methods of sterilization
  - D. Advantages and disadvantages of sterilizing methods
- III. Instrument preparation and wrapping
  - A. Sterilization
  - B. Instrument sets
  - C. Packaging
- IV. Attire, surgical scrub, gowning and gloving
  - A. Operating room attire
  - B. Surgical scrub
  - C. Gowning and gloving self/open and closed
  - D. Gowning and gloving others
  - E. Standards of practice
- V. Positioning the patient
  - A. Anatomic and physiologic considerations
  - B. Surgical positions
  - C. Positioning aides

- D. OR table use
- VI. Basic room preparation
  - A. Anesthesia supplies/suction equipment
  - B. Electrosurgical supplies
  - C. Positioning supplies
  - D. OR Furniture
  - E. Dr. preference card
  - F. Endo/video equipment
- VII. Surgical instruments
  - A. Types of instruments
  - B. Uses of instruments
  - C. Parts of instruments
  - D. Care of instruments
- VIII. Specialty equipment
  - A. Accessory equipment
  - B. Supplies
- IX. Skin preparation and draping
  - A. Physical preparation of patient
  - B. Skin preparation
  - C. Surgical skin prep
  - D. Urinary catheterization
- X. Draping the patient
  - A. Principles of draping
  - B. Draping materials
  - C. Application of drapes
- XI. Establishing the sterile field
  - A. Maintaining sterile field
  - B. Follow routines
  - C. Avoid double handling
  - D. Arrange drapes in order of use
  - E. Prepare suture supplies
  - F. Be prepared to count
  - G. Know case chronology
- XII. Five phases of surgery
  - A. Preparation sequence
  - B. Pre-incision sequence
  - C. Operative sequence
  - D. Closing sequence
  - E. Postoperative sequence
- XIII. Operative sequence
  - A. Incision
  - B. Hemostasis

- C. Dissecting and exposure
  - D. Exploration and isolation
  - E. Surgical repair: excision or revision
  - F. Hemostasis and irrigation
  - G. Collection and verification of specimen
- XIV. Intraoperative activities of the surgical technologist in scrub role
- A. Use preference card as guide
  - B. Anticipate instrument usage
  - C. Know hand signals
  - D. Selection of instrument lengths
  - E. Specimen care
  - F. Completion of final counts
- XV. Postoperative routines
- A. Confine and contain
  - B. Clean up
  - C. Institutional policies
- XVI. Common OR emergencies
- A. Massive hemorrhage
  - B. Malignant hyperthermia
  - C. Emergency tracheotomy/cricothyroidotomy
  - D. CPR
  - E. Power failures
  - F. Fires
  - G. Major disaster-triage
- XVII. Diagnostic procedures
- XVIII. The surgical vocabulary
- A. Root words
  - B. Prefixes
  - C. Suffixes
  - D. Surgical procedures

**REQUIRED TEXTBOOKS:**

To be determined by the instructor.

**STATEMENT FOR STUDENTS WITH DISABILITIES:**

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.