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## Course Outline for SURG 52

### SURGICAL SPECIALTIES

Effective: Fall 2008

#### I. CATALOG DESCRIPTION:

SURG 52 — SURGICAL SPECIALTIES — 6.00 units

This course provides the student with a systematic approach to a given surgical procedure. Addressed in this course are the most common surgical procedures of General Surgery, Gynecological and Obstetrical Surgery, Genitourinary Surgery, Otorhinolaryngology, Ophthalmology, Plastic Surgery, Neurosurgery, Orthopedics, Cardiothoracic Surgery, Peripheral Vascular Surgery, Oral and Maxillofacial Surgery. For each surgical procedure, lectures, discussions, and demonstrations include but are not exclusive to the surgical anatomy and pathophysiology, anesthetic considerations, positions, prepping, supplies, equipment, instrumentation, specimens, wound closure, dressings, post-operative care and complications. Steps of the surgical procedures and their rationales are explained using multi-media.

6.00 Units Lecture

#### Prerequisite

SURG 51 - Surgical Patient Care Concepts  
with a minimum grade of C

#### Corequisite

SURG 53 - CLINICAL PRACTICE - SURG TECH

#### Grading Methods:

Letter Grade

#### Discipline:

	<b>MIN</b>
<b>Lecture Hours:</b>	108.00
<b>Total Hours:</b>	108.00

#### II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

#### III. PREREQUISITE AND/OR ADVISORY SKILLS:

**Before entering the course a student should be able to:**

##### A. SURG51

1. Describe the furnishings of a basic operating room;
2. Define the role of the surgical technologist and list the agencies governing the practice of the profession;
3. Identify the roles of the other members of the Surgical Team;
4. Given a selected piece of surgical equipment, discuss its purpose and a precaution to take when using it;
5. Given an application, identify the appropriate surgical supply item;
6. Assemble a Major Instrument set using an instrument count sheet;
7. Explain the steps of normal wound healing and describe factors that can either promote or prevent this process;
8. Distinguish between absorbable and non-absorbable sutures and cutting versus round suture needles;
9. Identify devices that can either monitor or regulate physiologic parameters of temperature, heart rate, oxygenation, and blood pressure;
10. Demonstrate infection control practices such as aseptic technique, surgical hand scrub, gowning and gloving, standard precautions;
11. Describe the purposes for and the basic rules of a surgical skin prep and urinary catheterization;
12. Describe methods of decontamination, disinfection, and sterilization of instruments and equipment;
13. Given a patient position, choose the equipment to maintain this position and the drapes used to create a sterile field around it;
14. Describe the handling of a selected surgical specimen;
15. Demonstrate a working knowledge of medication, proper dosages and administration methods and techniques;
16. Accurately identify and interpret different types of medication orders;
17. Compare and contrast methods agents and techniques of anesthesia in administration;
18. Analyze a given ethical dilemma and identify the ethical principle(s) involved;
19. Differentiate between the following legal terms; accountability, negligence, malpractice;
20. Demonstrate professional behavior and communication skills.

#### IV. MEASURABLE OBJECTIVES:

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

- A. Given a surgical procedure, describe a pathological condition for which it is performed;
- B. Identify diagnostic procedures most likely to be employed for each surgical specialty;
- C. For each surgical specialty, identify three instruments and describe their applications;
- D. List supplies and equipment common to each surgical specialty;
- E. Select an operative position appropriate for a given surgical procedure;
- F. Order the steps of five common surgical procedures;
- G. Correlate commonly used suture materials to the appropriate tissue approximation;
- H. Given a surgical specimen, describe its proper handling techniques;
- I. Describe the potential postoperative complications common to each surgical specialty.

## V. CONTENT:

- A. Basic Surgical Interventions-Format
  1. Anatomy
  2. Physiology
  3. Pathophysiology
  4. Diagnostic tools
  5. Surgical Intervention
    - a. Special considerations
    - b. Anesthesia
    - c. Positioning
    - d. Skin prep
    - e. Draping
    - f. Incision
    - g. Supplies
    - h. Equipment
    - i. Instrumentation
    - j. Steps of the procedure
    - k. Counts
    - l. Dressings
    - m. Specimens
    - n. Disposition of the patient
    - o. Postoperative patient care
    - p. Prognosis
    - q. Complications
- B. Core Surgical Interventions
  1. Endoscopic General surgery
    - a. Choledochoscopy
    - b. Colonoscopy
    - c. Endoscopic retrograde cholangiopancreatography
    - d. Esophagoscopy
    - e. Sigmoidoscopy
  2. Endoscopic Gynecology
    - a. Colposcopy
    - b. Hysteroscopy
  3. Endoscopic Otorhinolaryngology
    - a. Microlaryngoscopy
    - b. Triple Endoscopy (laryngoscopy, bronchoscopy, and esophagoscopy)
  4. Endoscopic Genitourinary surgery
    - a. Cystoscopy
    - b. Transurethral resection of the prostate
    - c. Nephroscopy
    - d. Ureteroscopy
  5. General surgery
    - a. Colectomy
    - b. Colostomy
    - c. Endoscopic inguinal herniorrhaphy
    - d. Inguinal herniorrhaphy
    - e. Laparoscopic appendectomy
    - f. Laparoscopic cholecystectomy
    - g. Modified radical mastectomy
    - h. Open cholecystectomy with cholangiograms
  6. Obstetric and gynecologic surgery
    - a. Cesarean section
    - b. Laparoscopic assisted vaginal hysterectomy
    - c. Diagnostic laparoscopy
    - d. Operative laparoscopy with oophorectomy
    - e. Total abdominal hysterectomy with bilateral salpingo-oophorectomy
    - f. Vaginal hysterectomy
  7. Otorhinolaryngological surgery
    - a. Myringotomy with tube insertion
    - b. Septoplasty
    - c. Sinusoscopy
    - d. Temporomandibular joint arthroplasty
    - e. Thyroidectomy
    - f. Tonsillectomy and adenoidectomy
  8. Genitourinary Surgery
    - a. Nephrectomy
    - b. Orchiopexy
    - c. Suprapubic prostatectomy
  9. Orthopedic surgery
    - a. Bunionectomy with hammertoe correction
    - b. Carpal tunnel release
    - c. Knee arthroscopy
    - d. Shoulder arthroscopy
    - e. Lumbar laminectomy for decompression
    - f. Open reduction and internal fixation of the femur
    - g. Total hip arthroplasty
- C. Specialty Surgical Interventions
  1. Ophthalmic

- a. Cataract extraction
  - b. Entropion / Ectropion
  - c. Recession and Resection
- 2. Oral and Maxillofacial surgery
  - a. LeFort I
- 3. Plastic and Reconstructive
  - a. Breast reconstruction
  - b. Rhytidectomy
  - c. Skin grafting
- 4. Cardiothoracic Surgery
  - a. Bronchoscopy
  - b. Mediastinoscopy
  - c. Thoracoscopy
  - d. Thoracostomy
  - e. Thoracotomy for wedge resection
- 5. Peripheral Vascular Surgery
  - a. Angioscopy
  - b. Aortofemoral bypass
  - c. Arteriovenous fistula/ shunt creation
  - d. Carotid endarterectomy
- 6. Neurosurgical
  - a. Cervical discectomy
  - b. Craniotomy for aneurysm, hematoma evacuation, tumor excision
  - c. Lumbar discectomy
  - d. Lumbar discoscopy
  - e. Ventriculoperitoneal shunt placement

#### VI. METHODS OF INSTRUCTION:

- A. **Lecture** -
- B. Directed Reading
- C. Interactive CD-ROMs
- D. **Demonstration** -

#### VII. TYPICAL ASSIGNMENTS:

A. Reading assignment: Read Chapter 17, "Breast Surgery", Pages 566-584, Alexander's Care of the Patient in Surgery, 13th Edition. Rothrock, 2007, Mosby Elsevier. Complete the 50-question worksheet on breast surgery in preparation for an in-class quiz. B. Participate in demonstrations-return demonstrations of supplies, equipment and techniques involved in breast surgery. C. Use an Interactive CD-ROM on General Surgery Instruments to prepare for an in-class quiz.

#### VIII. EVALUATION:

##### A. **Methods**

- 1. Exams/Tests
- 2. Quizzes
- 3. Class Participation
- 4. Other:
  - a. Methods
    - 1. Multiple choice quizzes
    - 2. Participation in weekly lecture demonstration
    - 3. Exams

##### B. **Frequency**

- 1. Frequency
  - a. Weekly quizzes
  - b. Weekly participation in lecture-demonstration
  - c. At least one mid-term
  - d. Final Exam

#### IX. TYPICAL TEXTS:

- 1. Rothrock, Jane C *Alexander's Care of the Patient in Surgery*. 13th ed., Mosby Elsevier, 2007.

#### X. OTHER MATERIALS REQUIRED OF STUDENTS: