

University of Arkansas - Fort Smith
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General Syllabus

SUR 1526 Surgical Technology Procedures I

Credit Hours: 6 Lecture Hours: 6 Laboratory Hours: 0

Prerequisites: American Heart Association's CPR for Healthcare Providers, HTLH 1473 Medical Terminology, BIOL 1153/1151 Biological Science/Laboratory, BIOL 1463/1461 Microbiology and Immunology/Laboratory, BIOL 2203/2201 Human Anatomy/Laboratory, MATH 1403 College Algebra or higher MATH, ENGL 1213 Composition II or ENGL 1233 Honors Composition, PSYC 1163 General Psychology, and ITA 1001 Computer- Word Processing

Corequisite: SUR 153A Surgical Technology Practicum I

Effective Catalog: 2018-2019

I. Course Information

A. Catalog Description

Introduces students to preparation, sterilization, and disinfection of supplies used in surgery; orientation to the basic concepts of anesthesia and its associated hazards; and the physical, social, spiritual, and psychological needs of the surgical patient.

B. Additional Information - None

II. Student Learning Outcomes

A. Subject Matter

The following learning outcomes are classified as (C) Cognitive, (P) Psychomotor, (A) Affective

Upon successful completion of this course, the student will be able to:

1. Discuss the principles and rationale of aseptic technique and apply them in the clinical area. (C), (P)
2. Relate principles of sterile attire to prevention of postoperative infection in the surgical patient. (C)
3. Explain the foundations of perioperative patient care standards. (C)

4. Define ethical, moral, and legal decision making and the surgical technologist's responsibility to the patient. (A)
5. Discuss awareness of team concept in the surgical environment. (A)
6. Show awareness of the differing reaction of patients to the stress of the surgical environment. (A)
7. Recognize the special needs of geriatric and pediatric patient. (A)
8. Identify means of communication and documentation of their relation to continuity of care of the surgical patient. (A)
9. Discuss the principles of aseptic environment. (C)
10. List the environmental hazards of the surgical area and relate these to patient and personnel safety. (C)
11. Relate standard precautions in relation to controlling blood-borne pathogen exposure. (A)
12. Explain and apply methods and principles of sterilization and disinfection. (P)
13. Demonstrate the proper method of care and cleaning of surgical instruments and equipment. (P)
14. Explain the rationale behind sterilization versus disinfection. (C)
15. Discuss the mechanic of high speed and high vacuum sterilizer and demonstrate ability to operate. (C)
16. Discuss and demonstrate laser operation and safety measures. (C), (P)
17. Names uses for the Hermes robotics. (C)
18. Describe proper preoperative preparation of the surgical patient. (C)
19. Differentiate between the types of anesthesia, administration, and effects on the patient. (C)
20. Position the patient properly on the operating table in various surgical positions and demonstrate correct body mechanics and principles of protection for the patient. (P)
21. Discuss the principles of robotics to safe patient care in the OR. (C)
22. Apply the principles of physics to safe patient care in the OR. (A)
23. Demonstrate the correct procedures for caring for specimens. (P)
24. Explain the rationale of sponge, needle, and instrument counts and demonstrate compliance with hospital procedure concerning intra-operative counts. (C)
25. Discuss principles of care to ensure proper wound healing. (C)
26. Relate sterile technique to the prevention of postoperative wound infections. (C)
27. Review various methods of hemostasis and the situations that determine choice. (C)

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students will correctly identify the surgical instrument needed during the surgical process.

Communication Skills (written and oral)

Students will use verbal and written communication to accurately document sponge and surgical instruments post surgery.

III. Major Course Topics

- A. Introduction to the Surgical Environment: Roles, Management, Employee Qualities, Hospital Organization, Information Technology in the Hospital Setting
- B. Law and Ethics: Chart Review, Consents, Living Wills, Communication, Teamwork, Risk Management
- C. Operating Room Preparation: Case Management
- D. Safety, i.e. Latex, Radiation, Electrical and Laser, Chemicals, and Hazards Preparation
- E. The Patient: Transcultural Care, Biopsychosocial Needs, Death and Dying
- F. Review Elements of Microbiology
- G. Essentials of Asepsis: Managing the Sterile Field
- H. Surgical Instrumentation, Classes, Exposure, Uses, Laparoscopic
- I. Sterilization and Disinfection, Sterile Storage, OR Environmental Cleaning
- J. Wound Healing, Wound Closure, Materials, Dressings and Packings, Drainage and Tubes, i.e. Urinary Catheterization
- K. Patient Positioning, Skin Preparation, Draping, and Transportation
- L. Sponges, Dressings, Sharp and Instrument Counts, Specimen Care
- M. Introduction to Pharmacology
- N. Surgical Pharmacology: Uses, Measurements, and Handling
- O. General Anesthesia: Techniques and Agents
- P. Local and Regional Anesthesia: Techniques and Agents
- Q. Diagnostic Procedures, Introduction to Disease
- R. Care of the Patient in Surgical Emergencies
- S. Thermoregulatory Devices, Endoscopic Use and Care, and Robotics in the OR
- T. Postoperative Care of the Surgical Patient
- U. Assistant Circulator Role