

SOUTHEAST COMMUNITY COLLEGE
HEALTH SCIENCES DIVISION
SURGICAL TECHNOLOGY
Revision Date: 11/2023

I. CATALOG DESCRIPTION

Course Number: SURT 1740
Course Title: Principles of Surgical Technology
Prerequisite(s): Admission to the Surgical Technology Program

Catalog Description: Introduction to the OR physical environment and safety factors as well as the perioperative routine of the surgical patient to include diagnostic studies, biopsychosocial needs, death and dying. The introduction of patient monitoring, special needs patients and hemostasis, blood loss, fluid balance, and emergency patient situations. The introduction of surgical anesthesia, PACU and vitals, as well as all hazards preparedness.

Credit Hours: 3
Class Hours: 45
Lab Hours: 0
Total Contact Hours: 45

II. COURSE OBJECTIVES: *The Course will:*

1. Discuss the physical environment and safety factors related to the O.R. environment including preparation for hazardous situations.
2. Analyze the perioperative routine of the surgical patient including diagnostic studies, patient monitoring, biopsychosocial needs, hemostasis, blood and fluid management, death and dying and emergency patient situations including how the perioperative routine is impacted by the special needs of individual patients.
3. Demonstrate the ability to take patient vitals and assess normal value ranges.
4. Describe surgical anesthesia and the patient recovery process following a surgical procedure performed in the Post Anesthesia Care Unit (PACU)/ Recovery Room.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. STUDENT LEARNING OUTCOMES: *Student will be able to:*

1. Analyze the principles of anesthesia administration and explain the necessity of each component of anesthesia preparation of the surgical patient
2. Compare and contrast methods, agents, and techniques of anesthesia
3. Administration and preparation
4. Correlate anesthesia monitoring devices with patient homeostasis
5. Explain anesthesia complications and interventions
6. Apply general terminology to medication use
7. Discuss the location of the surgical services within the healthcare facility
8. Describe basic floor plan designs for surgical services
9. Explain the principles underlying the design of the surgical department
10. Describe the floor plan of the operating room

11. Summarize the components that comprise the environmental systems
12. Describe the principles of environmental system safety controls
13. Describe the types of disasters or public health emergencies
14. Discuss the effects of emerging infectious diseases
15. Describe the effect disasters can have on the environment
16. Describe how healthcare facilities can manage waste
17. Describe the purpose and coordination of the all-hazards systems, including the hospital incident command system, national incident management systems, and national response framework
18. Describe the components of a healthcare facility emergency operations plan
19. Explain the personal and professional responsibilities of healthcare workers when participating in the management of a disaster or hazard
20. Describe how to mitigate casualties according to specific types of hazards
21. Describe the four responses that apply to every type of disaster
22. Describe the triage procedures
23. Describe the role of the surgical technologist during triage
24. Describe the processes used to control contamination
25. Describe the support roles of the surgical technologist
26. Discuss the moral and ethical issues relevant to hazards
27. Evaluate the holistic needs of the surgical patient
28. Identify responses concerning the needs of the patient population
29. Discuss the needs of susceptible populations
30. Evaluate perceptions regarding death and dying
31. Define the various causes of death
32. Discuss the definitions of death
33. Compare and contrast responses to the process of death
34. Evaluate the various coping strategies and mechanisms
35. Analyze quality vs quality of life
36. Evaluate the process when a patient's death occurs in the operating room
37. Discuss the issues regarding organ and tissue recovery from a deceased individual
38. Discuss the issues related to suicide
39. Identify surgical supplies
40. Explain the usage of surgical supplies
41. Explain the principles of handling the various types of surgical supplies
42. Evaluate the selection of surgical supplies
43. Demonstrate the role of the surgical technologist in the application of surgical supplies
44. Summarize the purpose of documentation
45. Describe the documents found in the surgical patient's chart
46. Discuss the purpose of informed consent
47. Describe the types of informed consent
48. State the purpose of patient identification
49. Describe the patient identification procedure according to the patient situation
50. Describe the purpose of the time-out procedure
51. Identify the sequence for the time-out procedure
52. Recall who will participate in the time-out procedure
53. Identify the time-out components
54. Analyze the principles of surgical hemostasis
55. Differentiate between various methods of hemostasis
56. Analyze the postoperative care of the surgical patient
57. Describe potential surgical patient complications
58. Describe the assistive role of the surgical technologist
59. Describe equipment and supplies

60. Discuss the criteria for patient discharge
61. Lab Skills Assessment – How to monitor vital signs

B. GENERAL EDUCATION LEARNING OUTCOMES

1. GELO 3: Critical Thinking & Problem Solving

Outcome: Synthesize information to arrive at reasoned solutions to problems.

IV. CONTENT/TOPICAL OUTLINE:

A. UNITS

1. O.R. Physical Environment and Safety Factors
2. Preoperative Routine
3. Anesthesia and Physiologic Monitoring of the Perioperative Patient
4. Patient Care Needs and Death & Dying
5. Hemostasis & Emergency Patient Situations
6. Post Anesthesia Care Unit & Vitals
7. All Hazards Preparedness

V. INSTRUCTIONAL MATERIALS REQUIRED:

A. Required Text(s):

Association of Surgical Technologists. *Surgical Technology for the Surgical Technologist* (current edition).

Pieknik, R. *Suture and Surgical Hemostasis; A Pocket Guide* (current edition).

Nemitz, Renee. *Surgical Instrumentation: An Interactive Approach* (current edition).

Goldman, M. A. *Pocket Guide to the Operating Room* (current edition).

VI. METHODS OF PRESENTATION/INSTRUCTION:

A. Methods of presentation typically include a combination of the following:

Lecture with Power Point slides, Videos, Demonstration, Handouts, Syllabus objectives, Class participation, Role playing, Small Group Work, Assigned Readings in Textbooks.

VII. METHODS OF EVALUATION:

SCC STANDARD GRADING SCALE POLICY:

A+	95-100	C+	75-79
A	90-94	C	70-74
B+	85-89	D+	65-69
B	80-84	D	60-64
		F	Below 60

VIII. SPECIFIC COURSE REQUIREMENTS

For specific course requirements please see the Course Information Document (CID) and Program Handbook.

Minimum passing final grade for this course is a 75% (C+). Below 75% = recycle and repeat the course. This course cannot be taken as PASS/FAIL.