

SOUTHEAST COMMUNITY COLLEGE
HEALTH SCIENCES DIVISION
SURGICAL TECHNOLOGY
Revision Date: 10/2023

I. CATALOG DESCRIPTION

Course Number: SURT 1640
Course Title: Introduction to Surgical Technology
Prerequisite(s): Admission to the Surgical Technology Program

Catalog Description: Study of instruments, supplies and equipment used in the perioperative process of surgery. Introduction to specialized modalities in surgery, including endoscopy, lasers, robotics, orthopedic implants, power equipment, fixation devices for bone fractures, basic electricity theories, interventional radiology applications, bone fracture, bone healing and casting materials that are used in surgery to promote optimum patient care. Introductory information covering Information Technology and Study Skills is included.

Credit Hours: 5
Class Hours: 75
Lab Hours: 0
Total Contact Hours: 75

II. COURSE OBJECTIVES: *Course will:*

1. Deliver Study Skills and refresh information regarding computer skills in Pre-course module.
2. Introduce the Surgical Technology student to surgical instruments, supplies and equipment used in the surgical process.
3. Familiarize the student with the purpose of basic surgical instruments, supplies and equipment used in the surgical process.
4. Demonstrate the functions of basic surgical instruments, supplies and equipment used in the surgical process.
5. Describe and identify instrumentation, supplies and equipment used in endoscopic surgery.
6. Discuss concepts, equipment and implants within Orthopedic surgery to include bone breaks, bone healing, and power equipment.
7. Introduce electricity terms, theories and interventional radiology applications.
8. Discuss Laser and Surgical Robotics to include application within the OR.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

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

1. Describe the basic components of a computer system.
2. Evaluate basic electronic medical records (EMR) systems used.
3. Evaluate safe practices for implementing information technology.
4. Describe best practices in securing protected health information (PHI).
5. Define electricity terminology.
6. Describe the principles of electrical flow.
7. Describe the various components of the electrosurgical unit.

8. Describe the biophysics of lasers.
9. Discuss the advantages of using lasers.
10. Describe the types of lasers.
11. Describe the specific applications of each type of laser.
12. Discuss the applications of each type of MIS system.
13. Discuss the advantages of each type of MIS system.
14. Discuss the risks associated with the use of each type of MIS system.
15. Discuss the components of MIS systems.
16. Describe the purpose of interventional radiology (IR).
17. Discuss the considerations for the use of IR.
18. Describe imaging modalities.
19. Evaluate the role of the surgical technologist in IR.
20. Identify the purposes of the various types of equipment.
21. Review the uses of the various types of equipment.
22. Describe the perioperative handling of equipment.
23. Identify the manufacturing characteristics of surgical instruments.
24. Compare the grades of surgical instruments.
25. Describe the categories of surgical instruments.
26. Apply knowledge of surgical instrumentation to specific surgical specialties.
27. Evaluate perioperative instrumentation handling concepts.
28. Identify surgical supplies.
29. Explain the usage of surgical supplies.
30. Explain the principles of handling the various types of surgical supplies.
31. Evaluate the selection of surgical supplies.
32. Demonstrate the role of the surgical technologist in the application of surgical supplies.
33. Identify the sections of the OR table.
34. Explain the functions of the OR table.
35. Define terminology related to sutures.
36. Discuss the requirements of suture packaging.
37. List the desired characteristics of suture materials.
38. Describe the factors that must be considered when choosing suture material.
39. Explain the characteristics used to classify suture material.
40. Analyze the characteristics of each type of suture material.
41. Describe the characteristics of suture needles.
42. Identify the factors that must be considered when choosing a suture needle.
43. Describe the parts of a suture needle.
44. Explain the principles of handling suture needles.
45. Describe the various types of suture techniques.
46. Define the types of wound closure.
47. Identify the factors that must be considered when selecting the type of needle holder.
48. Describe the techniques for cutting suture material.
49. Summarize the skin closure techniques.
50. Describe the various types of wound closure accessories.
51. Describe the types of surgical dressings.
52. Evaluate the functions of surgical dressings.
53. Demonstrate the preparation of surgical dressings.

B. GENERAL EDUCATION LEARNING OUTCOMES

1. GELO 3: Critical Thinking & Problem Solving

Collect, identify, interpret and analyze data.

IV. CONTENT/TOPICAL OUTLINE

A. UNITS

1. O.R. Furniture & Equipment
2. Instruments
3. Suture & Needles
4. Perioperative Supplies(Sponges & Dressings)
5. Trocars & Endoscopy, Stapling Devices & Hemostatic Clips
6. Catheters/Tubes/Drains
7. Bone Breaks & Casting, Ortho Implants & Fx Devices and Power Equipment
8. Syringes/Hypodermic Needles, Electricity, & Interventional Radiology Applications
9. Lasers & Robotics

V. INSTRUCTIONAL MATERIALS

A. Required Text(s): All most current editions

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

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

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

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

B. Other Resources:

Instrument kit rented from SCC Bookstore

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.