

SURG-112 SECOND LEVEL OF SURGICAL TECHNOLOGY

6 CREDITS

SYLLABUS

CATALOG DESCRIPTION

Students will learn about electrocautery & laser usage. The care, cleaning and uses of Endoscopic instruments. They will learn commonly used lab and x-ray tests. The handling, care & how to choose the right instrument for the job. They will learn instrumentation for abdominal and laparoscopic procedures. They will learn basic Urology, & set-ups for Ear, Nose, Throat and Eye procedures. They will do some practicum to compliment this course.

Prerequisites: Acceptance into the Surgical Technology Program. HITP 110, BIOL 224, BIOL 252, BIOL 253, ENGL111, ENG 211 or 218, COMM 110 OR 111, MATH 114 or higher, PSYC 120, SURG 110

Semester Offered: Fall Semester

COMMON STUDENT LEARNING OUTCOMES

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...

BROAD AND SPECIALIZED LEARNING

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION

Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

INTEGRATING TECHNOLOGIES

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

COURSE LEARNING OUTCOMES

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

GENERAL LEARNING OBJECTIVES

1. Know why safety precautions are needed for laser surgery.
2. Learn how to achieve a pneumoperitoneum during a laparoscopic surgery.
3. Know the basic set-up of endoscopic instruments.
4. Learn the proper care for endoscopic instruments and equipment.
5. Discuss the disinfection and sterilization procedures for flexible and rigid endoscopes.
6. Know terms related to physics in the surgical setting.
7. Learn the principles of physics related to safe patient care practices in the OR.
8. Know the basic concepts related to robotics.
9. Know the basic components and mechanisms of the robotic system.
10. Know the clinical applications of robotics in the OR.
11. Identify basic components of a computer system.
12. Learn basic laboratory tests and their indications.
13. Learn to identify basic radiographic tests and their indications.
14. Know the characteristics of tissues.
15. Know the differences in types of instruments by their function.
16. Learn the care and handling of instruments.
17. Learn to recognize specific abdominal incisions.
18. Learn to identify specific abdominal incisions for access to specific organs of the abdominal cavity.
19. Learn to choose drapes appropriate for incisions.
20. Learn to set up a basic set-up for an abdominal surgery.
21. Learn to set up a basic laparoscopic abdominal surgery.
22. Learn to identify sterile and clean areas during a laparoscopic assisted vaginal hysterectomy.
23. Know instruments and equipment required in a hysteroscopic procedure.
24. Learn to set up a simple set-up for a Gyn abdominal surgery.

SPECIFIC LEARNING OBJECTIVES

1. List the different types of anesthesia
2. Discuss the medication administration routes used in surgery.
3. List information listed on medication labels.
4. Describe the role of the surgical technologist in medication administration.
5. Explain the six "rights" of medication administration.
6. Explain some complications of not labeling drugs on sterile field.
7. Discuss the purpose of antibiotic therapy in surgery.
8. Discuss antibiotic resistance.
9. List examples of surgical procedures in which agents that affect coagulation may be administered.
10. List common intravenous solutions and their purposes in surgery.
11. List surgical procedures that may be performed under local or regional anesthesia.
12. Define the phases of general anesthesia.
13. Identify emergency situations associated with anesthesia.
14. Discuss the role of the surgical technologist during a cardiac emergency in surgery.
15. List the clinical signs of malignant hyperthermia and the basic course of treatment.
16. Discuss the role of the surgical technologist in a malignant hyperthermia crisis.
17. Explain what standard precautions are.
18. List different ways to prevent patient burns from electro-cautery
19. Demonstrate safe handling of different types of sharps
20. Demonstrate how to set up for a surgical case.
21. Demonstrate how to open sterile pack on sterile table
22. Demonstrate how to open peel-pack packages

23. Demonstrate how to open a sterile tray
24. Demonstrate how to open sterile gloves
25. Demonstrate a sponge, needle, instrument, and sharps count correctly
26. Demonstrate passing different instruments, different ways
27. Show the different types of hemostasis used in surgery
28. Show different types of needle types and their uses
29. Show different types of suture types and their use
30. Show different suture sizes and when used.
31. Show different stapling devices and where they would be used
32. Explain what happens during insufflations to obtain a pneumoperitoneum
33. Set up a common endoscopic procedure.
34. Demonstrate the break down and storage of endoscopic instruments
35. Demonstrate disinfection and sterilization of flexible and rigid endoscopes
36. Define terms related to physics in the surgical setting.
37. Apply the principles of physics to safe patient care practices in the OR.
38. Discuss the basic concepts related to robotics.
39. Identify the basic components and mechanism of the robotic system.
40. List the clinical applications of robotics in the OR.
41. List the major components of a computer system.
42. Explain normal testing required on patients
43. Explain why these are important
44. Explain when radiographic tests are done
45. Why these are done
46. Show the different layers of tissue and skin layers
47. Show different instruments by their function
48. Demonstrate how to handle contaminated instruments
49. Demonstrate how to care for instruments
50. Match name of incision with incision type
51. Match incision types with organs to be operated on.
52. Match appropriate drape to specific incisions
53. Perform a basic set-up of an abdominal surgery
54. Perform a basic set-up of a laparoscopic abdominal surgery
55. Demonstrate the different area of sterile and clean areas on a Laparoscopic Assisted Vaginal Hysterectomy
56. Demonstrate a set-up for a Gyn Hysteroscopic procedure
57. Demonstrate a simple Gyn abdominal surgery set-up