MOHAWK VALLEY COMMUNITY COLLEGE, UTICA-ROME, NY

Surgical Technology

COURSE OUTLINE

1. COURSE DESCRIPTION:

**ST131 Fundamentals for Surgical Technology** C-2, P-3 CR-3

This course introduces students to the procedures used to prepare patients for surgery. Topics include preparation of the surgical site, draping, wound management, vacuums, catheters, drains, and hemostatic agents. Students gain hands-on experience with the various machines and equipment used for surgery and are introduced to the precautions taken during electro-surgery and laser surgery.

**Prerequisites:** ST120 Surgical Technology Clinical Seminar, ST130 Fundamentals for Surgical Technology 1, BI216 Human Anatomy and Physiology 1, and HM100 Medical Terminology for Health Professionals

**Corequisites:** ST140 Surgical Technology Skills and Procedures 1, BI217 Human Anatomy and Physiology 2, and BI209 Basic Pathophysiology

1. STUDENT LEARNING OUTCOMES

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

1. Verbalize medication, anesthesia administration and the care of the post anesthesia patient.
2. Identify surgical equipment and possible hazards that could occur during surgery.
3. Demonstrate the proper care and handling of the surgical specimen.
4. Demonstrate opening sterile supplies, surgical counts and preparation of the sterile field.
5. Demonstrate the process of surgical skin prep and draping of the surgical site.
6. Demonstrate the preparation and positioning of the surgical patient.
7. Verbalize the methods of hemostasis, healing process, complications of healing, wound classifications, and tissue approximation.
8. MAJOR TOPICS:
9. Perioperative Pharmacology
	1. Principles of Pharmacology
	2. The Medication Process
	3. Drug Action
	4. Selected Drug Categories
10. Anesthesia and Physiological Monitoring
	1. Anesthesia Concepts
	2. Anesthesia Personnel
	3. Anesthesia Selection and Methods
	4. Post anesthesia Recovery
11. Physics and Information Technology
	1. Physics
	2. Information Technology
12. Energy Sources in Surgery
	1. Electrical Hazards
	2. Laser energy
13. Moving, Handling, and Positioning the Surgical Patient
	1. Transferring and Transporting the Patient
	2. Positioning the Surgical Patient
14. Surgical Skin Prep and Draping
	1. Surgical Skin Prep
	2. Draping the Surgical Site
	3. Removing Drapes
15. Case Planning and Intraoperative Routines
	1. Surgical Case Plan
	2. Preoperative Case Preparation
	3. Opening a Case
	4. The Count
	5. Lost and Retained Items
	6. Management of Surgical Specimens
16. Management of the Surgical Wound
	1. Wound Irrigation
	2. Retraction
	3. Hemostasis
	4. Autotransfusion
	5. Sutures and Surgical Needles
	6. Implants
	7. Wound Closure and Complications