MOHAWK VALLEY COMMUNITY COLLEGE, UTICA-ROME, NY

COURSE OUTLINE

1. COURSE DESCRIPTION:

**ST109 Pharmacology for the Surgical Technologist** C-2, CR-2

This course covers general principles of pharmacology related to the surgical technologist in the perioperative environment. Topics include drug sources, classifications, and regulatory issues, indications for use, complications, adverse reactions, and routes of administration, calculation, and medication handling. Emphasis on the relationship of drugs to the surgical patient. Anesthesia and emergency situations are stressed.

**Prerequisites:** HM100 Medical Terminology for Health Professionals

**Corequisites:** None.

1. STUDENT LEARNING OUTCOMES

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

1. Demonstrate a general understanding of how drugs, used in surgery, work and how their actions may be modified.
2. Identify the specific pharmacology of the major drug groups.
3. Identify risks and benefits of specific drugs.
4. Identify the pharmacology of inhalational, intravenous, and local anesthetic agents and the clinical application of each.
5. Demonstrate specific drug administration and how to calculate accurate doses.
6. Demonstrate the mixture of medications for patient use.
7. Verbalize medication used during anesthesia administration.
8. MAJOR TOPICS:
9. Introduction to Pharmacology
   1. Basic Pharmacology
   2. Medication Development, Regulation, and resources
   3. Pharmacology Math
   4. Medication Administration
10. Applied Surgical Pharmacology
    1. Antibiotics
    2. Diagnostics Agents
    3. Diuretics
    4. Hormones
    5. Medication that Affects Coagulation
    6. Ophthalmic Agents
    7. Fluids and Irrigation Solution
    8. Antineoplastic Chemotherapy Agents
11. Anesthesia
    1. Preoperative Medications
    2. Patient Monitoring and Local and regional Anesthesia
    3. General Anesthesia
    4. Emergency Situations