

**PHM 138  
PHARMACY CLINICAL**

**COURSE DESCRIPTION:**

Prerequisites: Enrollment in the Pharmacy Technology program, PHM 112, PHM 118, and PHM 120

Corequisites: PHM 125, PHM 140, and PSY 118

This course provides an opportunity to work in pharmacy settings under a pharmacist's supervision. Emphasis is on communicating effectively with personnel, developing proper employee attitude, and dispensing medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and operate computers efficiently. Course Hours Per Week: Clinical, 24. Semester Hours Credit: 8.

**COURSE OBJECTIVES:**

Upon completion of this course, the student will demonstrate basic cognitive and psychomotor competencies in each of the following pharmacy areas:

- a. Hospital and pharmacy organization
- b. Outpatient dispensing
- c. Inpatient dispensing
- d. Unit-dose systems
- e. Purchasing and inventory control
- f. Controlled drug systems
- g. Aseptic technique and laminar flow hood usage
- h. Intravenous admixture systems
- i. Compounding and sterile production
- j. Chemotherapy systems and dispensing
- k. Special preparation equipment
- l. Non-sterile compounding
- m. Automated dispensing systems

**OUTLINE OF INSTRUCTION:**

- I. Clinical orientation
  - A. Rotations
  - B. Policies
  - C. Evaluation
- II. Hospital pharmacy organizations
  - A. Centralized pharmacy organizations
  - B. Satellite systems
  - C. Management and levels of supervision
- III. Outpatient dispensing

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- A. Receipt and computer entry of prescription
  - B. Filling of prescription
  - C. Filling controlled drug prescriptions
  - D. Filling third-party prescriptions and record keeping
  - E. Pricing and filing prescriptions
  - F. Maintaining patient or family medications record systems
  - G. Automated dispensing systems
- IV. Inpatient dispensing
- A. Ward stock
  - B. Cart exchange
  - C. Pick-up and delivery
  - D. Individual prescription system
  - E. Controlled drugs
  - F. Stock locations
  - G. Labeling
  - H. Automated dispensing systems
- V. Unit-dose systems
- A. Patient admitting
  - B. Medication orders and dispensing records
  - C. Medication carts
  - D. Filling records
  - E. Automatic stop orders
  - F. Controlled drugs
  - G. Automated dispensing systems
  - H. Patient discharges and transfers
  - I. Technician versus pharmacist responsibilities
- VI. Purchasing and inventory control
- A. Procedures and records
  - B. Storage and stock rotation
  - C. Receiving
  - D. Purchasing and ordering
- VII. Basic techniques
- A. Aseptic technique
  - B. Use and maintenance of laminar flow hoods
  - C. Sterilization/disinfection
- VIII. Intravenous and admixture systems
- A. Compliance with USP 797
  - B. Flow of order and computer entry
  - C. Labeling
  - D. IV admixture stocks and solutions
  - E. Preparation of small volume parenterals
  - F. Preparation of large volume parenterals
  - G. Preparation of total parenteral nutrition solutions
  - H. Delivery and storage of completed admixtures

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- I. Use of automated compounding equipment
  - J. Infusion control devices
  - K. Quality assurance
- IX. Other sterile production and compounding
- A. Record keeping and procedures
  - B. Equipment maintenance and operation
  - C. Preparation of prefilled syringes
  - D. Preparation of dialysis and/or irrigation solutions
  - E. Specialty products
  - F. Use of special preparation equipment
  - G. Quality assurance
- X. Chemotherapy systems
- A. Order flow and entry
  - B. Labeling and record keeping
  - C. Vertical flow hood and aseptic technique
  - D. Hazardous chemical safety and procedures
  - E. Disposal of cytotoxic agents
- XI. Non-sterile compounding
- A. Equipment
  - B. Preparation of products
  - C. Packaging, labeling, and record keeping
  - D. Product stability

### **REQUIRED TEXTBOOKS AND MATERIALS:**

Textbooks: None

Materials: Pharmacy Technology Student Policy Manual. Professional jacket and ID badge as designated by the program director are required.

### **SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:**

None.

Refer to Standard Operating Procedures or Policy Procedure Manuals for the various affiliating pharmacies.

### **STATEMENT OF STUDENTS WITH DISABILITIES:**

Students who require academic accommodations due to any physical, psychological, or learning disability should request assistance from the Disability Services Coordinator within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to the Disability Services Coordinator within the first two weeks of class. The Coordinator can be contacted by calling 686-3652, (V/TT), or by visiting the Student Services Office, Room 23, of the White Building.