

CATALOG INFORMATION

Dept and Nbr: PHARM 157      Title: HOSPITAL PHARM PRACTICE  
Full Title: Hospital Pharmacy Practice for the Pharmacy Technician  
Last Reviewed: 9/11/2023

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	0.50	Lecture Scheduled	0.50	17.5	Lecture Scheduled	8.75
Minimum	0.50	Lab Scheduled	1.00	6	Lab Scheduled	17.50
		Contact DHR	0		Contact DHR	0
		Contact Total	1.50		Contact Total	26.25
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 17.50

Total Student Learning Hours: 43.75

Title 5 Category: AA Degree Applicable  
Grading: Grade Only  
Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP  
Also Listed As:  
Formerly:

**Catalog Description:**  
This course prepares the Pharmacy Technician student to work in an inpatient hospital setting. The student will learn and practice the skills related to IV compounding, aseptic and sterile preparations, and safety compounding practices.

**Prerequisites/Corequisites:**  
Course Completion of PHARM 102, PHARM 152 and PHARM 154A

**Recommended Preparation:**  
Eligibility for ENGL 1A or equivalent

**Limits on Enrollment:**

**Schedule of Classes Information:**  
Description: This course prepares the Pharmacy Technician student to work in an inpatient hospital setting. The student will learn and practice the skills related to IV compounding, aseptic and sterile preparations, and safety compounding practices. (Grade Only)  
Prerequisites/Corequisites: Course Completion of PHARM 102, PHARM 152 and PHARM 154A  
Recommended: Eligibility for ENGL 1A or equivalent

Limits on Enrollment:

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>CSU Transfer:</b>		Effective:	Inactive:
<b>UC Transfer:</b>		Effective:	Inactive:

**CID:**

**Certificate/Major Applicable:**

Both Certificate and Major Applicable

## **COURSE CONTENT**

### **Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Differentiate between medications and medication dosage forms.
2. Demonstrate the ability to compound medications accurately and safely.
3. Compare and contrast the unique medication delivery systems found in hospitals and inpatient environments.

### **Objectives:**

At the conclusion of this course, the student should be able to:

1. Recognize the differences between retail pharmacy and hospital pharmacy and the skills required for working in a hospital inpatient setting.
2. Demonstrate the ability to communicate effectively with professional and ancillary staff in the hospital setting.

### **Topics and Scope:**

Lecture-Related Topics and Scope:

#### **I. Introduction to the Hospital Environment.**

A. Professional staffing and personnel policies

B. Formularies

C. Standard operation procedure

1. The Joint Commission (TJC) on Accreditation of Healthcare Organizations

2. Pharmacy & Therapeutics Committee

3. Retail pharmacy vs hospital pharmacy

D. Purchasing, central supply

E. Reading medication orders and terminology used on hospital orders

#### **II. Hospital Medication Delivery Systems and Vocabulary**

A. Physician's order

B. Medication administration record, fill lists, unit dose, automated drug delivery systems.

- C. Floor stock
  - 1. Medication carts
  - 2. Crash carts
- D. Urgent (Stat) orders vs. standing orders
- E. Inventory control
- F. Transfer medications
- G. Recapture of unused medications
- H. Billing
- III. Needles and Syringes\*
  - A. Small and large volume parenterals
  - B. Vials, ampules
  - C. IV administration sets
    - 1. Filter needles
    - 2. Flow rates
    - 3. Aseptic technique of IV medication
    - 4. Sterile preparation of IV medication
  - D. Personal Protective Equipment (PPE)
  - E. High Efficiency Particulate Air (HEPA) filters
  - F. Biological safety cabinet: working in the laminar and vertical flow hoods
- IV. IV Solution/Medication Compatibility\*
  - A. Choosing the correct tools to prepare IV solutions
  - B. Labeling IV preparations
    - 1. Inpatient use
    - 2. Outpatient use
  - C. Calculating
    - 1. Flow rates
    - 2. Powder volume
    - 3. Expiration dates
- V. Preparing Total Parenteral Nutrition (TPN)\*
  - A. Gravity method vs. auto-mix compounding
  - B. Preparing TPN admixture report
  - C. Creating a medication pool
- VI. Single Dose and Multi-Dose Vials\*
  - A. Preparation and storage
  - B. Working with ampules
  - C. Reconstituting powders
- VII. Chemotherapy Agents\*
  - A. Safety issues
  - B. Use of chemo spill kit
  - C. Safety equipment
  - D. Correct selection of equipment
  - E. Labeling and packaging of chemotherapy preparations
  - F. Disposal of biohazard materials
- VIII United States Pharmacopeia (USP)
  - A. USP 795 Pharmaceutical compounding nonsterile preparations
  - B. USP 797 Pharmaceutical compounding sterile preparations
  - C. USP 800 Hazardous drugs handling
  - D. USP 825 Radiopharmaceuticals

#### Lab-Related Topics & Scope:

- I. Preparing Unit Doses
- II. Restocking Medications and Crash Carts

\*These topics are also included in the lab

## Assignment:

### Lecture-Related Assignments:

1. Reading assignments in the textbook (10-20 pages per week)
2. Homework: create labels for practice medications to be used in the lab portion of the class
3. Class discussion
4. Quizzes (4-10)
5. Exams (1-3)
6. Final exam

### Lab-Related Assignments:

1. Laboratory skill demonstrations (3-6): Techniques and manipulation skills for hospital devices and medications, preparation of work area
2. Laboratory problem solving (3-6): Dosage calculations, correct preparation of medications

## Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments and skill demonstrations are more appropriate for this course.

Writing  
0 - 0%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Laboratory problem solving

Problem solving  
45 - 50%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Laboratory skill demonstrations; homework

Skill Demonstrations  
5 - 10%

**Exams:** All forms of formal testing, other than skill performance exams.

Quizzes; exams; final exam

Exams  
45 - 50%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Class small group discussions

Other Category  
0 - 5%

**Representative Textbooks and Materials:**

Sterile Compounding. Moini, Jahangir and Enabulele, Obehi and Scott, Anthony. Cengage. 2024.

Sterile Compounding and Aseptic Technique: Concepts, Training, and Assessment for Pharmacy Technicians. McCartney, Lisa. Paradigm Publishing. 2012 (classic).

Instructor prepared materials