

**PHT 156 Course Outline as of Fall 2025****CATALOG INFORMATION**

Dept and Nbr: PHT 156                      Title: DISPENSING & COMPOUNDING  
 Full Title: Dispensing and Compounding  
 Last Reviewed: 8/26/2024

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	2.50	Lecture Scheduled	1.75	17.5	Lecture Scheduled	30.63
Minimum	2.50	Lab Scheduled	2.25	8	Lab Scheduled	39.38
		Contact DHR	0		Contact DHR	0
		Contact Total	4.00		Contact Total	70.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 61.25

Total Student Learning Hours: 131.25

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: PHARM 156

**Catalog Description:**

The student will engage in general preparation of various pharmaceutical dosage forms including topical, transdermal, rectal, ophthalmic, nasal, oral, and otic. The student will gain practical experience in the manipulation of compounds and record-keeping functions essential for compounding and dispensing prescriptions. The student will study the different dosage forms, exploring their advantages and disadvantages, uses, storage, and packaging methods.

**Prerequisites/Corequisites:**

Course Completion of PHT 150 ( or PHARM 150)

**Recommended Preparation:****Limits on Enrollment:****Schedule of Classes Information:**

Description: The student will engage in general preparation of various pharmaceutical dosage forms including topical, transdermal, rectal, ophthalmic, nasal, oral, and otic. The student will gain practical experience in the manipulation of compounds and record-keeping functions essential for compounding and dispensing prescriptions. The student will study the different

dosage forms, exploring their advantages and disadvantages, uses, storage, and packaging methods. (Grade Only)

Prerequisites/Corequisites: Course Completion of PHT 150 ( or PHARM 150)

Recommended:

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. Explain routes of medication administration.
2. Identify pharmaceutical measuring units of measure and compounding requirements.
3. Identify brand and generic drug names.

### **Objectives:**

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

1. Accurately use the metric, apothecary, avoirdupois, and household systems to count and measure.
2. Compare and contrast the advantages and disadvantages of nasal, ophthalmic, oral, otic, rectal, topical, and transdermal dosage routes.
3. Determine the different storage requirements and safety considerations of various classifications of pharmaceuticals.
4. Describe and demonstrate proper compounding, documentation, labeling, and packaging forms.
5. Differentiate brand and generic drug names.

### **Topics and Scope:**

- I. Review of Common Pharmaceutical Measuring Systems and Equipment
- II. Topical Dosage Forms
  - A. Factors affecting absorption
  - B. Definitions, terminology and uses of
    1. Solutions

2. Lotions
  3. Creams
  4. Ointments
  5. Pastes
  6. Liniments
  7. Tinctures
  8. Collodions
  9. Aerosols
  10. Inhalants
  11. Sprays
  12. Powders
- III. Transdermal Drug Delivery Systems
- A. Local versus systemic use
  - B. Storage
- IV. Rectal Dosage Forms
- A. Local vs. systemic use
  - B. Ointments
  - C. Creams
  - D. Lotions
  - E. Suppositories
- V. Ophthalmic Dosage Forms
- A. Sterile preparation
  - B. Solutions
  - C. Suspensions
  - D. Semi-solids
  - E. Storage
- VI. Otic Dosage Forms
- A. Preparation
  - B. Uses
- VII. Nasal - Dosage Forms
- A. Spray
  - B. Drops
  - C. Irrigation
- VIII. Oral - Dosage Forms
- A. Tablets
    1. Sublingual
    2. Buccal
    3. Chewable
  - B. Capsules
  - C. Liquids
  - D. Pastes
  - E. Lozenges
  - F. Powder
  - G. Inhalers
- IX. Practical Dispensing
- A. Patient profile
  - B. Product identification
  - C. Label
  - D. Auxiliary labels
  - E. Packaging and containers
- X. Storage Requirements and Safety Considerations
- XI. Drug Classification

- A. Generic names
- B. Trade names
- C. Common therapeutic uses
- D. Usual doses

All topics are covered in the lecture and lab portions of the course.

**Assignment:**

**Lecture-Related Assignments:**

- 1. Read relevant chapters on compounding before each lab (30-35 pages per week)
- 2. Answer (3-5) critical thinking questions at the end of each chapter
- 3. Written case studies (3-8)
- 4. Quiz(zes) (1-6)
- 5. Exam(s) (1-3)
- 6. Final exam

**Lab-Related Assignments:**

- 1. Watch online videos on compounding and packaging of pharmaceuticals (ungraded)
- 2. Lab Exercises:
  - A. Demonstrate use of common pharmaceutical measuring systems and equipment
  - B. Describe and demonstrate extemporaneous compounding and packaging of creams, lotions, ointments, otic drops, pastes, powders, solutions, and suppositories.

**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.

Critical thinking questions and written case studies	Writing 15 - 20%
<b>Problem Solving:</b> Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.	
None	Problem solving 0 - 0%
<b>Skill Demonstrations:</b> All skill-based and physical demonstrations used for assessment purposes including skill performance exams.	
Lab exercises	Skill Demonstrations 30 - 35%
<b>Exams:</b> All forms of formal testing, other than skill performance exams.	
Quiz(zes), exam(s), and a final exam	Exams 40 - 50%

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

Attendance and participation

Other Category  
5 - 10%

**Representative Textbooks and Materials:**

Certification Exam Review. 5th ed. Paradigm Education Solutions. 2021.

Pharmacy Labs for Technicians. 4th ed. Sparks, Jason and McCartney, Lisa and Barriera, Nicole and Lubin, Wendy. Paradigm Education Solutions. 2020. (classic).

Davis's Drug Guide for Nurses. 18th ed. F.A. Davis Company. 2023.

Instructor prepared materials