

**PHARM 100 Course Outline as of Fall 2016****CATALOG INFORMATION**

Dept and Nbr: PHARM 100 Title: SKILLS FOR ADMIN OF MEDS

Full Title: Skills for Medication Administration

Last Reviewed: 4/8/2013

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	2.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	2.00	Lab Scheduled	1.00	5	Lab Scheduled	17.50
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00

Total Student Learning Hours: 122.50

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 374

**Catalog Description:**

Instruction in advanced arithmetic skills designed for Health Science students. Prepares students for success in medication administration through advanced skills development of operations with fractions, decimals and percents. Teaches students to methods of conversion between metric, household, and apothecary systems, using proportion. Introduces and develops advanced skills in calculating drug dosages in preparation for safe administration of medications in the health field.

**Prerequisites/Corequisites:**

Completion of CSKLS 371; OR CSKLS 368B or higher; OR Qualifying Test Score in Math

**Recommended Preparation:**

Eligibility for ENGL 100 or ESL 100

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

Description: Instruction in advanced arithmetic skills designed for Health Science students. Prepares students for success in medication administration through advanced skills development of operations with fractions, decimals and percents. Teaches students to methods of conversion between metric, household, and apothecary systems, using proportion. Introduces and develops

advanced skills in calculating drug dosages in preparation for safe administration of medications in the health field. (Grade Only)

Prerequisites/Corequisites: Completion of CSKLS 371; OR CSKLS 368B or higher; OR Qualifying Test Score in Math

Recommended: Eligibility for ENGL 100 or ESL 100

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

**CID:**

**Certificate/Major Applicable:**

Not Certificate/Major Applicable

## **COURSE CONTENT**

### **Outcomes and Objectives:**

Upon completion of the course, students will be able to:

1. Compute advanced operations in addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals.
2. Solve complex word problems involving multiple operations.
3. Convert metric, household, and apothecary formulas.
4. Use various methods to solve basic pharmacology problems.
5. Calculate drug dosages for oral and parenteral administration.
6. Identify medication errors in case studies or situational word problems and respond with an appropriate solution.

### **Topics and Scope:**

1. Advanced skills development of operations
  - a. Addition
  - b. Subtraction
  - c. Multiplication
  - d. Division of
    - 1) Whole numbers
    - 2) Fractions
    - 3) Decimals
    - 4) Measurements
2. Conversions as applied to Health Sciences
  - a. Fractions

- b. Decimals
- c. Percents
- d. Metric
- e. Household
- f. Apothecary
- 3. Health science problems using various methods
  - a. Ratio-proportion
  - b. Equations
  - c. Formulas
  - d. Dimensional analysis
- 4. Measurement systems and their application in basic pharmacology problems and conversions within and between systems
  - a. Household
  - b. Metric
  - c. Apothecary
- 5. Simple and complex drug dosage calculations for safe administration
  - a. Oral
  - b. Parenteral
  - c. Pediatric--weight and body surface area
- 6. Standard abbreviations and conventions of drugs
  - a. Labels
  - b. Orders
  - c. Records
  - d. Reconstitution of powdered drugs
- 7. Typical errors involving dosage calculations
  - a. Computational errors
  - b. Dosage errors
  - c. Safety assessment errors
  - d. Errors in selection of devices used to administer medication
- 8. Lab: Practical demonstrations of lecture concepts

### **Assignment:**

- 1. Approximately 13 to 20 homework reading and calculation assignments
- 2. 10-16 quizzes and 1-3 exams
- 3. Lab: Computer-assisted exercises and hands-on measurement and calculation assignments
- 4. 6-10 written responses to case studies and situational word problems containing medication errors
- 5. Comprehensive final exam

### **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.

Written response to case studies
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Writing 0 - 5%
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**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework and lab problems; case studies

Problem solving  
5 - 10%

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

Hands-on lab assignments

Skill Demonstrations  
5 - 10%

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

Quizzes, exams, final exam

Exams  
75 - 85%

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

Lecture and lab participation

Other Category  
5 - 5%

**Representative Textbooks and Materials:**

Skills for Medical Administration. 3rd edition. Booth, Kathryn; Whaley, James. McGrawHill. 2010.

Medical Dosage Calculations, 10th edition. Olsen, June; Giangrasso, Anthony Patric; Shrimpton, Dolores; Dillon, Patricia. Pearson Prentice Hall, 2010

Instructor prepared materials.