Bossier Parish Community College
Master Syllabus

Course Prefix and Number: PHAR 102 Lab   **Credit Hours: 2**

Course Title: Pharmacy Practice Lab

Course Prerequisites: Completion of or current enrollment in program prerequisite course, acceptance into the program.

Course Co-requisite: PHAR 104; PHAR 102 Lecture; PHAR 101

Textbooks: Ballington, D.; <u>Pharmacy Practice for Technicians</u>, 6th edition;

Course Description: Laboratory instruction compliments the lecture with hands-on experiences in medication preparation, dispensing, calculations and business applications.

Learning Outcomes:

At the end of this course the student will be able to:
  A. Demonstrate personal and interpersonal skills appropriate to the pharmacy setting, including effective, professional verbal and written communication.
  B. Perform mathematical calculations essential to the duties of the pharmacy technician.
  C. Demonstrate the role of the pharmacy technician in the medication-use process.
  D. Demonstrate the ability to process and handle medication and medication orders.
  E. Prepare simple non-sterile medications per applicable USP chapters.
  F. Demonstrate patient care, quality and safety skills.

To achieve the learning outcomes the student will complete the following labs and activities and achieve the listed objectives:

I. Introduction the Pharmacy Setting
        1. Inspect the BPCC Pharmacy lab layout
        2. Compare retail and institutional pharmacy layouts
        3. Recognize the equipment and tools used in pharmacies

II. Pharmaceutical Reference Materials
        1. Review the three major types of pharmaceutical literature.
        2. Utilize reference materials available to the pharmacy technician to investigate a pharmaceutical.

III. Techniques in Filling Prescription Bottles

1. Demonstrate the ability to count and place pills in prescription bottles.
2. Demonstrate the ability to pour liquid medications from stock bottles into smaller prescription bottles
3. Demonstrate the proper technique in the mixing of powdered antibiotic medication and stock water.

IV. Stocking the Pharmacy
1. Demonstrate an understanding of how drugs are arranged on the pharmacy shelves.

V. Library Research
1. Locate pharmacy reference books available in the BPCC College library
2. Identify the Allied Health lib guide on the BPCC Library website
3. Identify online databases used in research of pharmacy topics.
4. Recognize ancillary services provided by the BPCC library

VI. Fax Machine
1. Operate a fax machine to send and receive a document.

VII. Prescription Interpretation
1. Identify the parts of a prescription
2. Decode a DEA number
3. Interpret pharmacy abbreviations to interpret SIG codes
4. Identify the parts of a prescription label
5. Select and place auxiliary labels on prescription bottles.

VIII. Interpreting a Medication Label
1. Interpret a manufacturer's label on a medication bottle.
2. Locate and reshelf medications in the mock pharmacy.

IX. Utilizing QS1 Software & Role Play
1. Create a computer generated label using the QS1 software
2. Utilize a cash register to receive payment for an OTC and a prescription drug.
3. Demonstrate the capacity to manage and supervise pharmacy technicians in matters such as conflict resolution, teamwork, and customer service.
4. Apply supervisory skills related to human resources policies and procedures
5. Participate in operations of medication management services.
6. Simulate activities to support the patient care process including gathering patient information.

X. C-II Perpetual Count
1. Identify schedule C II drugs
2. Understand the process of maintaining a perpetual inventory count of C-II drugs.

XI. Virtual Pharmacy Externship for Technicians
1. Simulate a retail pharmacy experience including interacting with patients, pharmacists, physicians and insurance representatives.
2. Simulate a retail pharmacy including filling prescriptions and medications labels.
3. Simulate a retail pharmacy including inventory and store management tasks.
4. Simulate a retail pharmacy including applying self-management skills including time, stress, and change management.

XII. Introduction to Non-sterile Compounding
1. Describe the basic concept of non-sterile compounding
2. Utilize a torsion and electronic balance.
3. Utilize various types of volumetric equipment
4. Describe the process and equipment used in the mixing of powders.
5. Compare various types of solutions.
6. Describe ointments, creams, and emulsions.
7. Utilize the punch method to fill capsules.

XIII. Non-sterile Compounding
1. Produce a pharmaceutically elegant body crème.
2. Produce a pharmaceutically elegant lip balm.
3. Verify other techs (Students) measurements, preparation, and packaging of products.

XIV. Non-sterile Compounding II
1. Produce a non-sterile compounded product.

XV. Profill 100
1. Produce 100 tablets utilizing the Profill 100

XVI. Crash Cart
1. Inventory and replenish a crash cart
2. Utilize online reference materials to identify the indications for crash cart drugs.

XVII. Unit Dose System
1. Produce a unit dose of a medication using the Medi-Dose system.

XVIII. Thirty Day Card Fill
1. Utilize the QS1 software to create a prescription label
2. Create a 30 day dispensing card.

XIX. 24 hour cart fill
1. Demonstrate the ability to determine the correct procedure for completing a 24 hour medication cart.

XX. Auto Pak II Prepacking Machine
1. Demonstrate the ability to prepack medications into unit dose form.

XXI. Overview of an Automatic Drug Storage and Dispensing System
1. Demonstrate skill and accuracy in the process of filling an automated drug storage and dispensing system.
2. Determine and discuss the rationale and procedures for using an automated drug storage and dispensing system for pharmacy products.
3. Demonstrate an understanding of automation technology, terminology, and concepts.
4. Describe reasons for automation use in the hospital setting.
5. Identify primary roles and responsibilities of automation technology.
6. Identify various reporting and maintenance functions for automation technology.

XXII. Virtual Inventory Management for Technicians
1. Simulate a retail pharmacy experience including interaction with patients and Pharmacist.
2. Simulate a pharmacy including inventory and materials management.

XXIII. Medication Error in Filling Prescriptions
1. Think critically to identify and prevent errors in filling prescriptions.

XXIV. Virtual Medication Safety
1. Respond to different types of high-risk, life-threatening medication errors to demonstrate how errors occur and how to reduce or prevent them.

XXV. Interpreting a Safety Data Sheet
1. Read and interpret a safety data sheet.

XXVI. Performing Point of Care Testing
1. Explain point of care testing
2. Accurately measure blood pressure
3. Interpret blood pressure readings to recognize high, low, and normal ranges.
4. Measure Blood Glucose levels.
5. Interpret blood glucose levels.

XXVII. Getting Started in Non-Sterile Compounding Video Training Program
1. Recognize and define terminology related to compounding dosage forms, to compounding equipment, to preparation packaging, and to compounding techniques.
2. Describe the major differences between dosages forms, containers used for liquid measurements, the necessary documentation elements for packages, and the various techniques demonstrated.
3. Match a commercially available product with its appropriate dosage form.

4. Match a piece of compounding equipment with its appropriate function
5. Match a compounded dosage form with its appropriate package.
6. Match a compounded dosage form with its appropriate technique.

XXVIII. Perform mathematical calculations
1. Convert system of measurements
2. Convert ratios and proportions
3. Calculate dosage calculations
4. Calculate concentrations and dilutions
5. Calculate alligations
6. Calculate accounting and pricing considerations.

XXIV. Research paper and presentation
1. Produce a paper on an approved topic related to pharmacy practice.
2. Give an oral presentation on the approved research topic.

Course Requirements: To earn a grade of "C" or higher the student must earn 70% of the total points for the course and meet all of the following course requirements.
- Complete a minimum of 80% of assigned lab activities and homework
- Earn a minimum average of 70% on the midterm and final exams
- Demonstrate the ability to type 40 words per minute

Course Grading Scale:
A- 90% or more of the total possible points and meet all course requirements.
B- 80% or more of the total possible points and meet all course requirements.
C- 70% or more of the total possible points and meet all course requirements.
D- 60% or more of the total possible points and meet all course requirements.
F- less than 60% of the total possible points or failure to complete at least 80% of assigned lab activities or less than 70% average on the midterm and final exams

Attendance Policy: The college attendance policy is available at
http://www.bpcc.edu/catalog/current/academicpolicies.html

Course Fees: This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, certification exams and/or clinical fees.

Nondiscrimination Statement

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