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.; Pharmacy Practice for Technicians, 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- Communicate clearly and effectively, both verbally and in writing. (1.4)
B- Demonstrate a respectful and professional attitude when interacting with diverse patient populations, colleagues, and professionals. (1.5)
C- Apply self-management skills, including time, stress, and change management. (1.6).
D- Demonstrate problem solving skills (1.8)
E- Demonstrate the capacity to manage and supervise pharmacy technicians in matters such as conflict resolution, teamwork, and customer service. (1.9)
F- Apply critical thinking skills, creativity, and innovation (1.10)
G- Apply supervisory skills related to human resources policies and procedures. (1.11)
H- Demonstrate the ability to effectively and professionally communicate with other healthcare professional's payers and other individuals necessary to serve the needs of patients and practice. (1.12)
I- Explain the importance of maintaining competency through continuing education and continuing professional development. (2.1)
J- Demonstrate wellness promotion and disease prevention concepts. (2.4)
K- Demonstrate basic knowledge of anatomy, physiology and pharmacology, and medical terminology relevant to the pharmacy technician's role. (2.5)
L- Perform mathematical calculations essential to the duties of pharmacy technicians in a variety of settings. (2.6)
M- Support wellness promotion and disease prevention programs. (2.11)

N- Assist pharmacists in collecting, organizing, and recording demographic and clinical information for the Pharmacist Patient Care Process.(3.1)

O- Receive, process, and prepare prescriptions/medication orders for completeness, accuracy, and authenticity to ensure safety. (3.2)

P- Prepare patient specific medication for distribution. (3.4)

Q- Prepare non-patient specific medications for distribution. (3.5)

R- Maintain pharmacy facilities and equipment. (3.8)

S- Use information from Safety Data Sheets (SDS), National Institute of Occupational Safety and Health (NIOSH) Hazardous Drug List, and the United States Pharmacopeia (USP) to identify, handle, dispense, and safely dispose of hazardous medications and materials. (3. 9)

T- Use current technology to ensure the safety and accuracy of medication dispensing. (3.13)

U- Collect payment for medications, pharmacy services, and devices. (3.14)

V- Prepare simple non-sterile medications per applicable USP chapters (e.g. reconstitution, basic ointments and creams). (3.16)

W- Assist pharmacists in preparing medications requiring compounding of non-sterile products. (3.17)

X- Explain accepted procedures in inventory control of medications, equipment, and devices. (3.19)

Y- Prepare, store and deliver medication products requiring special handling and documentation. (3.22)

Z- Prepare medications requiring moderate and high level non-sterile compounding as defined by USP (3.24)

AA- Apply accepted procedures in purchasing pharmaceutical devices and supplies. (3.27)

BB- Apply accepted procedures in inventory control of medications, equipment, and devices. (3.28)

CC- Manage drug product inventory stored in equipment or devices used to ensure the safety and accuracy of medication dispensing. (3.31)

DD- Apply patient and medication safety practice in aspects of the pharmacy technician's roles. (4.2)

EE- Assist pharmacists in medication reconciliation. (4.5)

FF- Explain point of care testing (4.6).

GG- Verify measurement, preparation, and/or packaging of medications produced by other healthcare professionals. (4.9)

HH- Perform point of care testing to assist pharmacist in assessing patient clinical status. (4.10)

II- Participate in operations of medication management services. (4.11)

JJ- Participate in technical and operational activities to support the Pharmacists' Patient Care Process, as assigned.(4.12)

KK- Describe pharmacy compliance with professional standards and relevant legal, regulatory, formulary, contractual, and safety requirements. (5.5)

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

I. Stocking the Pharmacy
    1. Demonstrate an understanding of how drugs are arranged on the pharmacy shelves. (R)(EE)

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

III. Techniques in Filling Prescription Bottles
    1. Demonstrate the ability to count and place pills in prescription bottles. (P)
    2. Demonstrate the ability to pour liquid medications from stock bottles into smaller prescription bottles (P)
    3. Demonstrate the proper technique in the mixing of powdered antibiotic medication and stock water. (P)

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

V. Fax Machine
    1. Operate a fax machine to send and receive a document. (O)

VI. Utilizing QS1 Software- Creating a patient Profile
    1. Create a computer-generated label using the QS1 software (T)
    2. Demonstrate an understanding of the importance of a patient profile in pharmacy practice (JJ)
    3. Gain skill in reviewing a patient profile form for completeness and accuracy of information (JJ)
    4. Demonstrate an understanding of the types of problems that missing or inaccurate patient information can introduce to pharmacy practice (N)(II)
    5. Demonstrate strategies to resolve problems arising from incomplete patient profile forms (E)

VII. Customer Service Lab
    1. Display positive communication skills while assisting a pharmacy customer (B)
    2. Demonstrate proficiency in handling cash and operating a cash register (U)
    3. Describe the procedures and rationale for employing appropriate skills related to pharmacy customer service (G)

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

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

X. Brown Bag Lab
      1. Display positive communication skills while assisting a pharmacy customer (B)
      2. Participate in operations of performing a medication reconciliation to manage a patient's medication profile. (II)

XI. 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. (V) (W)
      2. Describe the major differences between dosages forms, containers used for liquid measurements, the necessary documentation elements for packages, and the various techniques demonstrated. (V)(W)
      3. Match a commercially available product with its appropriate dosage form.(V) (W)
      4. Match a piece of equipment with its appropriate function (V)(W)
      5. Match a compounded dosage form with its appropriate package. (V)(W)
      6. Match a compounded dosage form with its appropriate technique (V)(W)

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

XIII. Interpreting a Safety Data Sheet
      1. Read and interpret a safety data sheet.(S)

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

XV. Crash Cart
      1. Inventory and replenish a crash cart (X)(BB)

XVI. Non-sterile Compounding II
      1. Produce a non-sterile compounded product. (Q)(V)(W)(Z)

XVII. 24 hour cart fill
1. Demonstrate the ability to determine the correct procedure for completing a 24 hour medication cart. (P)(Y)

XVIII. Profill 100
1. Produce 100 tablets utilizing the Profill 100 (V)(W)(Z)

XIX. Medication Error in Filling Prescriptions
1. Think critically to identify and prevent errors in filling prescriptions. (D)(F)(DD)

XX. Unit Dose System
1. Produce a unit dose of a medication using the Medi-Dose system. (Q)(Y)

XXI. C-II Perpetual Count
2. Identify schedule C II drugs (K)
3. Understand the process of maintaining a perpetual inventory count of C-II drugs. (EE)

XXII. Thirty Day Card Fill
1. Utilize the QS1 software to create a prescription label (T)
2. Create a 30 day dispensing card. (P)(Y)

XXIII. Auto Pak II Prepacking Machine
1. Demonstrate the ability to prepack medications into unit dose form. (Q)(Y)

XXIV. 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. (R)(CC)(Y)
2. Determine and discuss the rationale and procedures for using an automated drug storage and dispensing system for pharmacy products. (R)(CC)
3. Demonstrate an understanding of automation technology, terminology, and concepts. (R)(CC)
4. Describe reasons for automation use in the hospital setting. (R)(CC)
5. Identify primary roles and responsibilities of automation technology. (R)
6. Identify various reporting and maintenance functions for automation technology. (R)

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

XXVI. Virtual Inventory Management for Technicians
1. Simulate a retail pharmacy experience including interaction with patients and Pharmacist. (A)(B)(H)
2. Simulate a pharmacy including inventory and materials management. (BB)

XXVII. 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. (KK)

XXVIII. Perform Mathematical calculations
1. Convert system of measurements (L)
2. Convert Ratios and Proportions (L)
3. Calculate Dosage Calculations (L)
4. Calculate Concentrations and Dilutions (L)
5. Calculate Alligations (L)
6. Calculate accounting and pricing considerations. (L)

XXIV. Virtual Pharmacy Externship for Technicians
1. Simulate a retail pharmacy experience including interacting with patients, pharmacists, physicians and insurance representatives. (A)(B)(C)(H)(G)
2. Simulate a retail pharmacy including filling prescriptions and medications labels. (P)
3. Simulate a retail pharmacy including inventory and store management tasks. (X)(AA)(BB)
4. Simulate a retail pharmacy including applying self-management skills including time, stress, and change management. (C)

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

XXXI. Research paper and presentation
1. Produce a paper on an approved topic related to pharmacy practice. (A)(H)(I)
2. Give an oral presentation on the approved research topic. (A)(H)

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 Practical.
- Demonstrate the ability to type 40 words per minute

Course Grading Scale:
- A- 90% or more of total possible points and meet all course requirements
- B- 80% or more of total possible points and meet all course requirements
- C- 70% or more of total possible points and meet all course requirements
- D- 60% or more of total possible points and meet all course requirements
- F- less than 60% of total possible points or failure to any all of the course requirements.

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

Bossier Parish Community College does not discriminate on the basis of race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

COORDINATOR FOR SECTION 504 AND ADA
Angie Cao, Student and Disability Services Specialist
Disability Services, F254, 6220 East Texas Street, Bossier City, LA 71111
318-678-6511
acao@bpcc.edu
Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.
Equity/Compliance Coordinator
Teri Bashara, Director of Human Resources
Human Resources Office, A-105
6220 East Texas Street
Bossier City, LA 71111
Phone: 318-678-6056
Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.