

COURSE OUTLINE

PROGRAM: National Pharmacy Technician Bridging Education Program

COURSE NAME: Management of Drug Distribution Systems

COURSE DURATION: 39 hrs.

PRIOR LEARNING ASSESSMENT AND RECOGNITION:

CH Exam ✓ Portfolio N/A

I. COURSE DESCRIPTION

This course will examine various drug distribution systems in pharmacy practice, and prepare learners to effectively manage operations in different practice settings to ensure safe and effective drug supply and distribution. Learners will explore distributive functions in institutional settings, as well as common drug plans and their formularies, adjudication challenges, inventory management elements and common business practices. Accurate product release within the parameters of the pharmacy technician role receives special emphasis.

II. COURSE OVERVIEW

Unit Number	Unit Name	Time in Hours
I	Patient Safety and Error Prevention	3
II	Hospital Pharmacy Dispensing	15
III	Community Pharmacy Dispensing	12
IV	Managing Inventory and Workflow	6
	Final Exam	3

III. VOCATIONAL LEARNING OUTCOMES

On completion of this course, participants will have reliably demonstrated the ability to:

1. Collaborate in developing, implementing, and evaluating quality assurance and risk management policies, procedures, and activities.

Learning Elements

- 1.1 Identify and respond to actual or potential problems within the drug distribution system.
- 1.2 Evaluate initiatives used to improve the quality and safety of medication use within the practice environment and the health care system.
- 1.3 Participate in the development, implementation, and evaluation of quality indicators.

2. Collaborate in the management of systems for drug distribution to ensure patient safety.

Learning Elements

- 2.1 Identify various drug distribution systems available in pharmacy practice including unit dose, ward stock, and automated distribution.
- 2.2 Identify and respond to individual patient needs while ensuring the safety, accuracy, quality, integrity, and timeliness of the product while following established drug distribution policies and procedures.
- 2.3 Describe and contribute to the implementation and maintenance of safe and effective systems of drug supply and distribution.

3. Promote safe and effective drug distribution by releasing and distributing products in a manner that ensures patient safety.

Learning Elements

- 3.1 Check the accuracy and completeness of pharmaceutical products prepared for release including those prepared through independent double check procedures.
- 3.2 Confirm that the patients in the community pharmacy have been provided consultation with the pharmacist.
- 3.3 Release/distribute the checked pharmaceutical product to the right patient, health care personnel, facility, or authorized person.
- 3.4 Document all aspects of drug distribution activities.

4. Promote safe and effective drug distribution by packaging products to maintain integrity.

Learning Elements

- 4.1 Identify various methods of packaging of products based on quantity, stability, safety, legislative requirements, and patient requirements.
- 4.2 Recognize and adhere to protocols surrounding bar codes, batch numbers, expiry, sterility, and auxiliary and safety labels in compliance with legislative requirements.
- 4.3 Complete accurate, legible records and documentation that meet standards, policies and procedures.

5. Apply the fundamental concepts of business practice and inventory management appropriate for various pharmacy practice environments.

Learning Elements

- 5.1 Differentiate various types of pharmacies
- 5.2 Identify types of services that attract business in a community pharmacy
- 5.3 Identify and compare various inventory management systems used in pharmacy practice.
- 5.4 Differentiate various pharmaceutical suppliers ensuring inventory requirements are sufficient for patient safety and efficient operations.
- 5.5 Describe the process of preparing and placing orders for stock and supplies from licensed pharmaceutical suppliers in compliance with relevant legislation.
- 5.6 Identify strategies for resolving discrepancies found when receiving stock and supplies from suppliers.

5.7 Ensure appropriate storage of medication in compliance with legislative requirements, policies and procedures.

6. Manage workflow within the pharmacy technician practice environment integrating organizational principles and skills and knowledge of prescription claims processing.

Learning Elements

- 6.1 Manage workflow by integrating effective prioritization, organizational, and time management skills.
- 6.2 Discuss and apply knowledge of the scope, limitations, and expectations of publicly funded and private insurance plan coverage
- 6.3 Identify strategies for resolving billing and adjudication issues encountered in the processing of prescriptions.

IV. ASSESSMENT OF LEARNING

Assessment Method	% of Final Grade	Associated Outcome(s)	Week Due
Traditional Dispensing Lab	10%	Outcome 3	4
Unit Dose Dispensing Lab	10%	Outcome 3	6
Community Pharmacy Dispensing Lab	10%	Outcome 3	9
Midterm Test	20%	Outcomes 1, 2, 3, 4	8
Assignment - Safety	10%	Outcome 1	5
Assignment – Publicly Funded Drug Benefits	10%	Outcome 6	10
Final Exam	30%	All Outcomes	13
Critical Reflection Activities* (3 in Total - Completed weeks 5, 7 and 10)	Requirements Met/Not Met	Outcome 3	10

An overall average of 70% with a passing grade of at least 70% on the final exam is required for successful completion of the course. All graded assessment items must be submitted to complete the course. **No supplemental examinations will be provided. This practice is consistent across the Pharmacy Technician Bridging Program and overrides individual college policies regarding provision of supplemental examinations.**

Attendance is mandatory. Frequent and/or unjustified absence from class may result in a request to withdraw from the course.

Important Notes:

1. As the above chart indicates, 30% of the final mark is based on completion of virtual laboratory activities/assignments focused on ‘independent double check’ procedures in three drug distribution systems – community pharmacy; traditional drug distribution and unit dose/cassette distribution. Some course participants will not have had experience in all three. Success in the lab activities included in lessons 4, 6 and 9 requires a good understanding of product release processes in community, hospital and long-term care pharmacy facilities. Students who have worked exclusively in a community pharmacy will discover that addressing the Independent Double Check processes required in

traditional drug distribution systems and unit dose distribution systems is easier if they have actually seen these distribution systems in action. Similarly, technicians who have worked exclusively in a hospital setting will benefit from first-hand knowledge of product release in a community pharmacy. As a result, it is strongly encouraged that learners use their own professional networks to arrange site visits to enable them to get first-hand knowledge of dispensing practices in various pharmacy settings before participating in these lab activities.

2. The **Critical Reflection Exercises** completed following each lab activity are a key strategy for ensuring that pharmacy technicians fully appreciate the significance of the checking process and the impact of their decisions and actions in this critical aspect of pharmacy practice. All three exercises must be completed. **Failure to submit this assignment or submission of an assignment that is incomplete will result in a grade of “zero” for the course.**
3. Assignments must be submitted directly to the instructor and are due at the beginning of class on the scheduled due date. Late submission of assignments or papers without the professor’s consent will result in a 20% per day reduction in the grade assigned. After 5 days, including weekends and holidays, the assignment or paper will receive a grade of zero.
Note: Personal illness or family emergency (sick child, death in the family, etc.) is the only reason for granting an extension for the submission of assignments. The request for an extension must be submitted to the instructor within 24 hours of failure to submit the required assignment. These requests must be accompanied by documentation from an appropriate source (e.g. physician, funeral director, etc.)

Note to Instructor: It is important that students understand how assignments and tests are evaluated before they begin working on them. Please make certain to discuss the marking scheme and expectations for assignments as they are assigned.
4. Cheating and/or plagiarism will not be tolerated. It should be noted that sharing information or seeking advance notice from colleagues about the content and format of tests, examinations or assignments is a clear example of academic dishonesty. Instances of academic dishonesty are subject to the policies and penalties established by the college delivering this course.
5. In many jurisdictions, the Pharmacy Regulatory Authority has mandated that following successful completion of this course, as preparation for registration, learners must complete a structured practical evaluation in the workplace to verify their ability to consistently perform accurate product release. (Consult the PRA web site for more information.)

V. REQUIRED TEXTS AND OTHER LEARNING MATERIALS

Lesson handouts