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HEALTH AND SOCIAL SERVICES

PHARMACY TECHNICAL ASSISTANCE

PROGRAM OF STUDY

5641

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VOCATIONAL and TECHNICAL EDUCATION

Québec

PHARMACY TECHNICAL ASSISTANCE

PROGRAM OF STUDY
5641

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HEALTH AND SOCIAL SERVICES

PHARMACY TECHNICAL ASSISTANCE

PROGRAM OF STUDY
5641

The *Pharmacy Technical Assistance* program leads to the Secondary School Vocational Diploma (SSVD) and prepares the student to practise the occupation of

PHARMACY TECHNICAL ASSISTANT

Direction générale de la formation professionnelle et technique

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INTRODUCTION

The *Pharmacy Technical Assistance* program is based on the orientations for secondary school vocational education adopted by the government in 1986. It was designed on the basis of a new framework for developing vocational education programs that calls for the participation of experts from the workplace and the field of education.

The program of study is developed in terms of competencies, expressed as objectives. These objectives are divided into modules, which are organized into teaching blocks. Various factors were kept in mind in developing the program: training needs, the job situation, purposes, goals, and strategies and means used to attain objectives.

The program of study lists the competencies that are the minimum requirements for a **Secondary School Vocational Diploma (SSVD)** for students in both the youth and adult sectors. It also provides the basis for organizing courses, planning teaching strategies, and designing instructional and evaluation materials.

Candidates must fulfil one of the following requirements for admission to the program:

- they hold a secondary school diploma;
- they are 16 years of age or older and have obtained the Secondary IV credits in language of instruction, second language and mathematics, or have the equivalencies recognized under section 232 or 250 of the *Education Act*;
- they are 18 years of age or older and have the functional prerequisites required by section 465 of the *Education Act*.

However, because of the requirements of the job market and admission criteria for practicums in health care facilities, preference will be given to candidates who are 18 years of age and hold a secondary school diploma.

The duration of the program is 1200 hours, which includes 675 hours spent on the specific competencies required to practise the occupation and 525 hours on general competencies. The program of study is divided into 19 modules, which vary in length from 15 to 120 hours (multiples of 15). The time allocated to the program is to be used not only for teaching but also for evaluation and remedial work. The modules are organized into three blocks, the first and second of 450 hours and the third of 300 hours.

This document contains two parts. Part I is of general interest and provides an overview of the training plan. It includes a synoptic table of basic information about the modules, a description of the program training goals, the competencies to be developed and the general objectives, and an explanation of operational objectives. Part II is designed primarily for those directly involved in implementing the program. It contains a description of the operational objectives of each module.

In keeping with this broad approach, three accompanying documents will be provided: a teaching guide, an evaluation guide, and a planning guide.

GLOSSARY

Program Training Goals

Statements that describe the educational aims of a program. These goals are the general goals of vocational education adapted to a specific trade or occupation.

Operational Objectives

Statements of the educational aims of a program in practical terms. They serve as the basis for teaching, learning and evaluation.

Competency

A set of socio-affective behaviours, cognitive skills or psycho-sensori-motor skills that enable a person to correctly perform a role, function, activity or task.

Module of a Program

A component part of a program of study comprising a first-level operational objective and the related second-level operational objectives.

General Objectives

Instructional objectives that provide an orientation for leading the students to attain one or more related objectives.

Credit

A unit used for expressing quantitatively the value of the modules in a program of study. One credit corresponds to 15 hours of training. Students must accumulate a set number of credits to graduate from a program.

DIRECTION [illegible]
Ministère de l'Éducation
1035, de la Chevrotière, 11e
Québec, G1R 5A5

PART I

1. SYNOPTIC TABLE

Number of modules: 19
Duration in hours: 1200
Credits: 80

Pharmacy Technical Assistance
Code: 5641

CODE	TITLE OF THE MODULE	HOURS	CREDITS*
754 302	1. The Occupation and the Training Process	30	2
754 318	2. The Alphanumeric Keyboard	120	8
754 326	3. Non-Parenteral Drugs	90	6
754 332	4. Legislation and Professional Ethics	30	2
754 344	5. Pharmaceutical Calculations	60	4
754 352	6. Principles and Techniques of Hygiene and Asepsis	30	2
754 364	7. Pharmaceutical Applications Software	60	4
754 372	8. Non-Sterile Preparations	30	2
754 388	9. Dispensing in Community Pharmacies	120	8
754 394	10. Parenteral Drugs	60	4
754 403	11. Communication and Teamwork	45	3
754 411	12. Occupational Health and Safety	15	1
754 425	13. Customer Service and Inventory Management	75	5
754 435	14. Dispensing in Health Care Establishments	75	5
754 444	15. Sterile Preparations	60	4
754 451	16. Planning a Job Search	15	1
754 466	17. Practicum in an Extended Care Facility	90	6
754 476	18. Practicum in a Community Pharmacy	90	6
754 487	19. Practicum in a Hospital	105	7

* 15 hours = 1 credit
Modules are divided into two blocks of 450 hours and one block of 300 hours.
This program leads to a Secondary School Vocational Diploma in Pharmacy Technical Assistance.
This is a limited-enrolment program.

DIRECTION DES COMMUNICATIONS
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2. PROGRAM TRAINING GOALS

The training goals of the *Pharmacy Technical Assistance* program are based on the general goals of vocational education and take into account the specific nature of the occupation. These goals are:

To develop effectiveness in the practice of the occupation of pharmacy technical assistant.

- To teach students to perform pharmacy technical assistance tasks and activities correctly, at an acceptable level of competence for entry into the job market.

- To prepare students to perform satisfactorily on the job by fostering:

  - the ability to follow instructions, protocols and procedures;
  - the ability to competently apply the specific technical procedures related to the occupation;
  - the ability to communicate effectively with customers;
  - a constant concern for the risks involved in making mistakes and lacking vigilance in the performance of tasks;
  - the ability to set priorities in the performance of tasks;
  - the ability to adapt to unforeseen events;
  - a concern for the principles of hygiene and asepsis as well as for the rules of occupational health and safety.

To ensure integration into the working world.

- To familiarize students with the job market in the pharmaceutical sector.

- To familiarize students with the rights and responsibilities of pharmacy technical assistants.

- To familiarize students with the role of pharmacy technical assistants and the limits on their activities.

- To foster the students' gradual integration into the job market.

To foster the development of occupational knowledge.

- To foster a basic understanding of the principles underlying the tasks performed.

- To help students acquire work methods and develop a sense of discipline.

- To help students develop initiative, a sense of responsibility and the desire to do good work.

- To help students develop the habit of self-evaluation.

- To foster a desire to keep informed of all aspects of the field.

To ensure job mobility.

- To help students develop a positive attitude toward technological change and new situations.

- To help students develop the skills required to perform tasks in various occupational situations.

- To prepare students for a creative job search.

3. COMPETENCIES

The competencies to be developed in the *Pharmacy Technical Assistance* program are shown in the grid of learning focuses on the following page. The grid lists general and specific competencies as well as the major steps in the work process.

General competencies involve activities common to several tasks or situations. They cover, for example, the technological or scientific principles that the students must understand to practise the trade or occupation. Specific competencies focus on tasks and activities that are of direct use in the trade or occupation. The work process includes the most important steps in carrying out the tasks and activities of the trade or occupation.

The grid of learning focuses shows the relationship between the general competencies on the horizontal axis and the specific competencies on the vertical axis. The symbol (△) indicates a correlation between a specific competency and a step in the work process. The symbol (○) indicates a correlation between a general and a specific competency.

The symbols (▲) and (●) indicate that these relationships have been taken into account in the formulation of objectives intended to develop specific competencies related to the trade or occupation.

The logic used in constructing the grid influences the course sequence. Generally speaking, this sequence follows a logical progression in terms of the complexity of the learning involved and the development of the students' autonomy. The vertical axis of the grid shows the competencies directly related to the practice of a specific trade or occupation. These competencies are arranged in a relatively fixed order; therefore, the modules should be taught, insofar as possible, in the order represented on the grid. The modules including the general competencies on the horizontal axis should be taught in relation to those on the vertical axis. This means that some modules are prerequisite to others, while other modules are taught concurrently.

GRID OF LEARNING FOCUSES

PHARMACY TECHNICAL ASSISTANCE

SPECIFIC COMPETENCIES
(directly related to the practice of the specific occupation)

MODULES		FIRST-LEVEL OPERATIONAL OBJECTIVES	DURATION (IN HOURS)	WORK PROCESS (major steps)						GENERAL COMPETENCIES (technology, personal development, etc.)												TOTALS	
				Become familiar with the work to be done	Plan the work	Carry out the assigned tasks	Respond to requests as they arise	Have their work checked	Record the required information	File the documents used	Clean the work area, disinfect the materials if necessary and store them	Use an alphanumeric keyboard	Apply concepts related to non-parenteral drugs	Observe the laws governing pharmacy assistance and apply the rules of professional ethics	Do pharmaceutical calculations	Apply principles and techniques of hygiene and asepsis	Use pharmaceutical applications software	Apply concepts related to parenteral drugs	Communicate in the workplace and work in a team	Take occupational health and safety precautions	Plan a job search	NUMBER OF OBJECTIVES	DURATION (IN HOURS)
	MODULES											2	3	4	5	6	7	10	11	12	16		
	FIRST-LEVEL OPERATIONAL OBJECTIVES											B	B	S	B	B	B	B	S	S	S	10	
	DURATION (IN HOURS)											120	90	30	60	30	60	60	45	15	15		525
1	Determine their suitability for the occupation and the training process	S	30			△								○					○				
8	Make non-sterile preparations	B	30	△		▲		△		△	▲	○	●	●	●	●	○			○			
9	Perform tasks related to dispensing in community pharmacies	B	120	△		▲		▲	▲	▲	▲	●	●	●	●	●	●		○	○			
13	Apply customer service and inventory management techniques	B	75	△		▲	▲		▲	▲	▲	○	●	●		●			●	●			
14	Perform tasks related to dispensing in health care establishments	B	75	△	▲	▲		▲	▲	▲	▲	●	●	●	●	●	●	●	○	●			
15	Make sterile preparations	B	60	▲	△	▲		▲	▲	▲	▲	●		●	●	●	●	●	○	●			
17	Perform occupational tasks in an extended care facility	S	90	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	○		
18	Perform occupational tasks in a community pharmacy	S	90	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	○	●	●	○		
19	Perform occupational tasks in a hospital	S	105	▲	▲	▲	▲	▲	▲	▲	▲	●	●	●	●	●	●	●	●	●	○		
NUMBER OF OBJECTIVES		9																				19	
DURATION (IN HOURS)			675																				1200

S: Situational objective
B: Behavioural objective

△ Correlation between a step and a specific competency
▲ Correlation to be taught and evaluated

○ Correlation between a general and a specific competency
● Correlation to be taught and evaluated

4. GENERAL OBJECTIVES

The general objectives of the *Pharmacy Technical Assistance* program are presented below, along with the major statement of each corresponding first-level operational objective.

To develop in the students the competencies needed to integrate harmoniously into the school and work environments.

- Determine their suitability for the occupation and the training process.
- Communicate in the workplace and work in a team.
- Observe the laws governing pharmacy technical assistance and apply the rules of professional ethics.
- Plan a job search.

To develop in the students the competencies needed to apply occupational safety measures.

- Apply principles and techniques of hygiene and asepsis.
- Take occupational health and safety precautions.

To develop in the students the competencies needed to understand the principles underlying the tasks performed in a pharmacy.

- Apply concepts related to non-parenteral drugs.
- Apply concepts related to parenteral drugs.

To develop in the students the competencies needed to perform the tasks of pharmacy technical assistants.

- Use an alphanumeric keyboard.
- Use pharmaceutical applications software.
- Do pharmaceutical calculations.
- Make non-sterile preparations.
- Perform tasks related to dispensing in community pharmacies.
- Apply customer service and inventory management techniques.
- Make sterile preparations.
- Perform tasks related to dispensing in health care establishments.

To develop in the students the competencies needed to perform the tasks of a pharmacy technical assistant in actual working conditions.

- Perform occupational tasks in an extended care facility.
- Perform occupational tasks in a community pharmacy.
- Perform occupational tasks in a hospital.

5. FIRST- AND SECOND-LEVEL OPERATIONAL OBJECTIVES

5.1 DEFINITION

A first-level objective is defined for each competency to be developed. Competencies are organized into an integrated training program designed to prepare students to practise the trade or occupation. This systematic organization of competencies produces better overall results than training by isolated objectives. More specifically, it fosters a smooth progression from one objective to the next, saves teaching time by eliminating needless repetition, and integrates and reinforces learning material.

First-level operational objectives are the main, compulsory teaching/learning targets and they are specifically evaluated for certification. There are two kinds of operational objectives: behavioural and situational.

- **A behavioural objective** is a relatively closed objective that describes the actions and results expected of the student by the end of a learning step. Evaluation is based on expected results.

- **A situational objective** is a relatively open-ended objective that outlines the major phases of a learning situation. It allows for output and results to vary from one student to another. Evaluation is based on the student's participation in the activities of the learning context.

Second-level operational objectives are intermediate teaching/learning targets deemed prerequisite for attaining first-level objectives. They are grouped according to the specifications (see 5.2 A) or the phases (see 5.2 B) of the first-level objective.

The division of operational objectives into first- and second-level objectives is based on a clear distinction between the levels of learning:

- learning involving prerequisite knowledge

- learning involving competencies

Second-level operational objectives indicate prerequisite knowledge. They prepare the students to learn what is necessary to attain the first-level operational objectives, which collectively lead to the development of a competency. The objectives should always be adapted to meet the particular needs of the individual students or groups of students.

First-level operational objectives cover the learning that the students need to develop a competency:

- The specifications or the phases of the objective determine or guide specific learning, thereby allowing the competency to be developed step by step.

- The objective as a whole (i.e. the six components and in particular the last phase of a situational objective) determines or guides the overall learning and the integration and synthesis of this learning, allowing the competency to be developed fully.

To attain the objectives, the following learning activities may be prepared:

- specific learning activities for second-level objectives
- specific learning activities for the specifications or phases of first-level objectives
- general learning activities for first-level objectives

5.2 HOW TO READ FIRST-LEVEL OPERATIONAL OBJECTIVES

A. How to Read a Behavioural Objective

Behavioural objectives consist of six components. The first three provide an overview of the objective:

1. The **expected behaviour** states a competency in terms of the general behaviour that the students are expected to have acquired by the end of the module.

2. The **conditions for performance evaluation** define what is necessary or permissible to the students during evaluation designed to verify whether or not the students have attained the objective. This means that the conditions for evaluation are the same wherever and whenever the program is taught.

3. The **general performance criteria** define the requirements by which to judge whether or not the results obtained are generally satisfactory.

The last three components ensure that the objective is understood clearly and unequivocally:

4. The **specifications of the expected behaviour** describe the essential elements of the competency in terms of specific behaviours.

5. The **specific performance criteria** define the requirements for each of the specifications of behaviour. They ensure a more enlightened decision on the attainment of the objective.

6. The **field of application** defines the limits of the objective, where necessary. It indicates cases where the objective applies to more than one task, occupation or field.

B. How to Read a Situational Objective

Situational objectives consist of six components:

1. The **expected outcome** states a competency as an aim to be pursued throughout the course.

2. The **specifications** outline the essential aspects of the competency and ensure a better understanding of the expected outcome.

3. The **learning context** provides an outline of the learning situation designed to help the students develop the required competencies. It is normally divided into three phases of learning:

   - information
   - performance, practice or involvement
   - synthesis, integration and self-evaluation

4. The **instructional guidelines** provide suggested ways and means of teaching the course to ensure that learning takes place and that the same conditions apply wherever and whenever the course is taught. These guidelines may include general principles or specific procedures.

5. The **participation criteria** describe the requirements the students must fulfil, which are usually related to each phase of the learning context. They focus on how the students take part in the activities rather than on the results obtained. Participation criteria are normally provided for each phase of the learning context.

6. **The field of application** defines the limits of the objective, where necessary. It indicates cases where the objective applies to more than one task, occupation or field.

PART II

MODULE 1: THE OCCUPATION AND THE TRAINING PROCESS

CODE: 754 302

Duration: 30 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to
determine their suitability for the occupation and the training process.

SPECIFICATIONS

At the end of this module, the students will:

- Be familiar with the nature of the occupation.
- Understand the training process.
- Evaluate their career choice.

LEARNING CONTEXT

PHASE 1: **Information on the Occupation**

- Learning about the job market in pharmacy technical assistance—work environments (types of community and health care establishment pharmacies), personnel and working conditions in each of the work environments (schedules, wages), job requirements—by meeting resource persons or consulting documents; taking notes.

- Learning about the role of pharmacy technical assistants, their main tasks, the limits on their activities, and the importance of their contribution, by meeting with a resource person; taking notes.

- Learning about the particular characteristics of health care establishment pharmacies (physical layout, procedures, work teams, atmosphere and equipment) during a group visit to a health care establishment pharmacy; noting their observations.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 1 (cont.):

- Learning about the tasks performed by pharmacy technical assistants, their working conditions (e.g. work pace, posture, atmosphere), types of customers and aspects of the job that are verified by the pharmacist, during an individual visit to a community pharmacy; noting their observations.

- Learning about the experiences of a graduate working as a pharmacy technical assistant, interesting aspects of the job, difficulties encountered and the skills and qualities required to practise the occupation, by meeting with such a graduate; taking notes.

- Discussing the origin of the occupation, its prospects, the role of the Association des assistantes et des assistants techniques en pharmacie and its main current concerns with a representative of the Association.

- Presenting the information gathered and sharing their current views on the occupation during a class discussion.

PHASE 2: **Information on the Training Program**

- Learning about the training program (i.e. program of study, training process, evaluation methods, certification of studies) by consulting documents and meeting with the teacher.

- Learning about the physical layout of the laboratory, the nature and function of the available equipment and materials, and the rules to be followed, during a visit to the laboratory.

- Participating in a class discussion of the program content with regard to the occupation and its requirements in terms of knowledge, skills and aptitudes.

PHASE 3: **Evaluation of Their Career Choice**

- Evaluating individually their preferences, aptitudes and interests with respect to the occupation and comparing these to the requirements of the occupation.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 3 (cont.):

- Producing a written report specifying their career choice and describing aspects of their personality that are compatible with the exercise of the occupation and their preferred workplace (community pharmacy or health care establishment pharmacy).

- Discussing their report with the teacher and assessing their decisions.

INSTRUCTIONAL GUIDELINES

The teacher should:

- Ensure that resource persons are available and well informed.
- Plan and organize field trips to workplaces.
- Make available to students the materials required to carry out the activities.
- Direct students' research on the occupation and the training program.
- Advise students to keep the notes they take during the various activities for use in class discussions.
- Provide students with instructions to follow during field trips.
- Lead class discussions.
- Encourage students to engage in discussions and express themselves.
- Offer students an accurate and objective view of the occupation.
- Provide students with the means of evaluating their career choice honestly and objectively.

PARTICIPATION CRITERIA

PHASE 1:

- Gather information on most of the topics to be dealt with.
- Follow instructions during field trips.
- Express their present views on the occupation in comparison with their initial views.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

PARTICIPATION CRITERIA

PHASE 2:

- Study the documents provided.
- Establish relationships between the training and the requirements of the occupation.

PHASE 3:

- Write the required report.
- Be willing to discuss their career choice.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking any of the activities:

1. State the main rules governing group discussions.
2. Determine a procedure for taking notes, making summaries and doing a written assignment.
3. State means of observing effectively.

MODULE 2: THE ALPHANUMERIC KEYBOARD

CODE: 754 318

Duration: 120 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must
use an alphanumeric keyboard
in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Using an electric typewriter or computer with a French keyboard
- Using blank sheets of paper or word processing software
- Following the instructions given and working with a simple text with numbers, capital letters, punctuation and paragraph indents

GENERAL PERFORMANCE CRITERIA

- Proper posture
- Correct use of keyboarding technique
- Regular rhythm
- Typing speed: minimum 30 words per minute
- Conformity of document with instructions

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Prepare for typing or inputting data.	- Satisfactory preparation of typewriter - Proper centring of paper on carriage or in printer - Correct choice of paper size, margins, line spacing and font - Observance of procedure for turning on computer - Correct use of operating system - Correct use of main menu - Proper handling of diskettes
B. Apply a keyboarding technique on an alphanumeric keyboard.	- Conformity of technique with method selected - Proper use of keys - Eyes kept at correct level depending on equipment used - Gradual increase in speed according to established scale
C. Type data and simple texts requiring the use of various typewriter keys.	- Correct use of the various components of the typewriter - Use of correct keys
D. Input data and simple texts requiring the use of various keys using word processing software.	- Use of key(s) appropriate to the document to be input or printed - Satisfactory use of cursor - Observance of procedure for saving texts - Observance of procedure for exiting software
E. Perform regular maintenance of the typewriter or printer.	- Correct change of typewriter ribbon - Cleanliness of hands and work surface after changing typewriter ribbon - Correct installation of printer ribbon

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to prepare for typing or inputting data (A):

1. Recognize the main components of a typewriter and their function.
2. State the ergonomic principles to be applied when using an alphanumeric keyboard.
3. State the most common health problems caused by incorrect posture at a typewriter or computer screen.
4. Recognize the main components of a computer and their function.
5. Do calculations to centre a sheet of paper horizontally and vertically in the carriage.
6. Identify the function of a floppy disk drive and a hard disk drive.
7. Define *operating system* and *main menu*.

Before learning how to apply a keyboarding technique on an alphanumeric keyboard (B):

8. Understand the diagrams illustrating keyboarding techniques.
9. Calculate typing speed.
10. State ways of increasing typing speed on an alphanumeric keyboard.
11. Recognize ways of creating various characters not appearing on some keyboards.

Before learning how to input data and simple texts requiring the use of various keys using word processing software (D):

12. Define *software*, *file* and *menu*.
13. Place different sizes of paper in a printer paper tray.

MODULE 3: NON-PARENTERAL DRUGS

CODE: 754 326

Duration: 90 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must
apply concepts related to non-parenteral drugs
in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Working with a selection of non-parenteral drugs from the 200 most commonly prescribed
- Taking into account the legal and therapeutic classifications of drugs used by the Régie de l'assurance-maladie
- Without using reference materials

GENERAL PERFORMANCE CRITERIA

- Use of correct terminology
- Accurate identifications and associations

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Recognize the class or subclass of common non-parenteral drugs.	- Recognition of the legal class of drugs according to the extent to which they are controlled - Recognition of the therapeutic class or subclass of drugs
B. Associate the brand names of common non-parenteral drugs with their common names and manufacturers.	- Association of brand name(s) with common name - Association of brand name of a drug with its manufacturer - No spelling errors in common and brand names
C. Recognize the dosage forms and concentrations of common non-parenteral drugs.	- Recognition of dosage forms of each drug presented - Recognition of the concentration(s) of the main active ingredients of various dosage forms of a drug
D. Recognize the routes of administration of common non-parenteral drugs.	- Recognition of the route(s) of administration of various dosage forms of a drug - Recognition of the brand name of the device required to administer a drug by the pulmonary route
E. Recognize the specific procedures for storing various types of non-parenteral drugs.	- Account taken of the manufacturer's instructions, the regulations regarding the storage of drugs and the established storage system

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to recognize the class or subclass of common non-parenteral drugs (A):

1. Locate the main organs on a diagram of the human body.
2. State the main functions of each system in the human body.
3. State the role of the main parts of the digestive, cardiovascular, respiratory, urinary, reproductive, musculoskeletal, sensory and nervous systems.
4. Associate the medical terms used frequently in pharmacy technical assistance with organs or components of a system in the human body.
5. Define the terms used frequently in pharmacy technical assistance to denote classes and subclasses of drugs.

Before learning how to associate the brand names of common non-parenteral drugs with their common names and manufacturers (B):

6. Define *brand name* and *common name*.
7. Use the Régie de l'assurance-maladie's list of drugs.

Before learning how to recognize the dosage forms and concentrations of common non-parenteral drugs (C):

8. State the main dosage forms of non-parenteral drugs, their characteristics and the abbreviations used to represent them.
9. Distinguish between a vehicle, an excipient, a diluent, an adjuvant and an active ingredient.
10. State the purpose of the indented line appearing on some tablets.
11. Distinguish between a suspension that must be prepared and a suspension that is ready for use.
12. Indicate what is meant by the *concentration* of a drug and the means used to express it.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to recognize the routes of administration of common non-parenteral drugs (D):

13. Distinguish between the following routes of administration: oral or per os, rectal, vaginal, topical, sublingual, otic, optic, nasal and pulmonary.
14. Understand each abbreviation used to represent the route of administration of non-parenteral drugs.

MODULE 4: LEGISLATION AND PROFESSIONAL ETHICS

CODE: 754 332 **Duration: 30 hours**

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to
observe the laws governing pharmacy technical assistance and apply the rules of professional ethics.

SPECIFICATIONS

At the end of this module, the students will:

- Be familiar with the legal provisions related to the exercise of the occupation.
- Be familiar with the requirements of the occupation in terms of professional behaviour.
- Evaluate their ability to observe the laws and regulations governing the exercise of the occupation and to apply the rules of professional ethics.

LEARNING CONTEXT

PHASE 1: **Familiarization with Laws Related to the Exercise of the Occupation**

- Attending a general presentation on the federal and provincial laws related to pharmacy technical assistance and their scope.

- Working in small groups, attempting to define the following terms and relate them to a law: *drug identification number, patent drug, record, safety-closed device, label, inspection, prescription, patient's record, delegated tasks, schedule.*

- Participating in a class discussion of the results of the group work and, with the help of the teacher, learning about the sections of the laws and regulations dealing with each of the above-mentioned topics.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 2: **Familiarization with the Legal Aspects of the Occupation**

- Working in small groups, attentively observing the manufacturer's label on each drug provided by the teacher and identifying the information that seems important with respect to the occupation; noting this information and the reasons for their choice.

- Participating in a class discussion of the results of the group work and of the meaning and importance of each item on the manufacturer's label.

- Learning about the legal provisions applicable to the writing and filling of prescriptions; participating in various exercises to familiarize themselves with the content of prescriptions.

- Given a prescription provided by the teacher and working in small groups, producing a label for the prescribed drug and verifying its conformity to the *Pharmacy Act's Regulation respecting the labelling of medications and poisons*; working alone, producing labels for various prescriptions in various hypothetical situations.

- Working in small groups, studying a blank patient's record sheet and attempting to decipher the meaning of its elements; then, given a variety of prescriptions, writing a patient's record in longhand; verifying the conformity of the information to the *Pharmacy Act's Regulation respecting the keeping of records, books and registers by a pharmacist in the practice of his profession*; participating in a class discussion of the difficulties encountered and of the updating of patients' records, the period of activity of patients' records and specific characteristics of patients' records in health care establishments.

- Learning about the content of the summary table of regulations concerning narcotics and controlled drugs in community pharmacies and, as a class, listening carefully to the teacher's explanations of the different parts of the table; participating in exercises involving the use of the various data contained in the table and the recording of the proper drugs in the narcotic and controlled drug registries.

- Given a list of drugs and poisons provided by the teacher, finding each of the products in the laboratory and recording its location in the correct space on the list; participating in a class discussion of their results and learning about the legal provisions that apply to the storage of certain products in pharmacies.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 2 (cont.):

- Participating in a class discussion to summarize the aspects of the occupation affected by laws and regulations and identify the ensuing responsibilities of pharmacy technical assistants and the consequences of errors.

PHASE 3: **Familiarization with the Professional Behaviour to Be Adopted in the Exercise of the Occupation**

- On the basis of experience acquired during visits to pharmacies and working in small groups, discussing the requirements of protocol related to the exercise of the occupation (e.g. rules of presentation, language, dress).

- Working in small groups, making a list of the professional behaviours to be adopted when working in a team, communicating with customers, handling drugs and money, and gathering personal information about patients.

- Analyzing various situations illustrating the behaviour of a pharmacy technical assistant in the workplace; noting the behaviours that are consistent with or that contravene the rules of professional ethics.

- Participating in a class discussion of information gathered during the preceding two activities, and of the importance of the pharmacy technical assistant's behaviour for the effectiveness of the team, customer satisfaction and the image of the establishment.

PHASE 4: **Evaluation of Their Ability to Observe the Law and Apply the Rules of Professional Ethics**

- Working alone, producing a written analysis of their ability to observe the laws and regulations governing the exercise of the occupation, as well as of their aptitudes with regard to professional behaviours to be adopted in the workplace.

- Discussing with the teacher the results of their analysis and means of improvement.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

INSTRUCTIONAL GUIDELINES

The teacher should:

- Help students understand the laws and regulations related to pharmacy technical assistance by presenting them in a table.
- Make available to students the materials and documentation required to carry out the activities.
- Determine in advance the duration of each activity, inform students of it and respect it.
- Lead class discussions.
- Encourage students to engage in discussions and express themselves.
- Create a climate that stimulates students' interest and motivation.
- Provide support and supervision in individual and group activities.
- Provide students with a variety of legible prescriptions for common drugs.
- Correct errors as they arise and clarify points to ensure that students understand.
- Present each category of narcotic and controlled drug appearing in the table during the given activity.
- Make a list of drugs and pharmaceutical products for the activity on storing drugs and poisons, using the following categories: toxic products, narcotics, over-the-counter drugs containing codeine, controlled drugs, patent drugs, over-the-counter drugs not containing codeine, prescription drugs, drugs that must be stored in the refrigerator, injectable drugs.
- Create hypothetical situations representative of the workplace that are designed to help students develop good judgment with respect to ethical behaviour to be adopted in the workplace.
- Gradually increase the difficulty of each activity.
- Encourage students to develop the habit of self-evaluation.
- Motivate students and encourage their efforts.
- Encourage students to take note of their progress and to persevere through difficulties.

PARTICIPATION CRITERIA

PHASE 1:

- Attempt to define the given terms and relate them to the relevant laws and regulations.
- Participate actively in the class discussion of results obtained in group work.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

PARTICIPATION CRITERIA

PHASE 2:

- Show diligence in carrying out the activities.
- Participate actively and seriously in class discussions.

PHASE 3:

- Participate in drawing up the list of professional behaviours.
- Show diligence in recognizing satisfactory or unsatisfactory behaviours in the given situations.
- Participate seriously in the class discussion of information gathered.

PHASE 4:

- Produce a serious analysis.
- Be willing to discuss with the teacher the results of their self-evaluation and means of improving.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking any of the activities:

1. Explain the importance of cooperation and negotiation in teamwork.

Before undertaking the activities of Phase 1:

2. Distinguish between a law, a regulation and standard practice.
3. Compare the legal definitions of the following substances: drug, poison, narcotic, stupefacient, medication, cosmetic, food.
4. Review the concepts related to the legal classification of drugs.

Before undertaking the activities of Phase 2:

5. Review the meaning of the following terms: *brand name*, *common name*, *concentration*.
6. Review the concepts related to the storage of drugs.

Before undertaking the activities of Phase 3:

7. Distinguish between a code of ethics and a code of professional conduct.

MODULE 5: PHARMACEUTICAL CALCULATIONS

CODE: 754 344

Duration: 60 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must
do pharmaceutical calculations
in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given a learning situation and typewritten prescriptions
- Given the information required to solve calculation problems

GENERAL PERFORMANCE CRITERIA

- Accurate results
- Expression of results in the required unit of measure

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Do calculations concerning the dosage and quantity of drugs as well as the duration of treatment.	- Understanding of abbreviations and symbols related to the quantity and frequency of administration of drugs - Conversion of data from one metric unit of measure to another - Conversion of data from one unit of measure to another in a different system - Calculation of dosage according to the dosage form or concentration of the drug - Calculation of the total quantity of the drug - Calculation of the duration of treatment
B. Calculate the final concentration of a drug.	- Calculation of the concentration as a ratio or percentage according to the quantities of ingredients indicated - Calculation of the concentration of a significant volume of powdered drug contained in a vial
C. Calculate the quantity of ingredients required for magistral preparations.	- Calculation of the quantity of each ingredient according to the total quantity and concentration required for the preparation - Calculation of the weight or volume of ingredients when reducing or increasing the quantities specified in the formula

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
D. Calculate the quantity of ingredients required to obtain a dilution of a stock solution or a reduction of the concentration of a preparation.	- Correct use of calculation formula
E. Using alligation, calculate the quantity of ingredients required to obtain a solution at the desired concentration.	- Correct use of calculation method

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking any of the activities:

1. Perform the four basic mathematical operations with whole numbers to obtain accurate and estimated results.
2. Perform mathematical operations involving fractions and decimals.
3. Round off a whole number or decimal following the rule usually used in pharmacy.
4. Define *ratio* and *proportion*.
5. Solve simple mathematical problems using the rule of three.

Before learning how to do calculations concerning the dosage and quantity of drugs as well as the duration of treatment (A):

6. Review the meaning of the abbreviations of the most common dosage forms.
7. Associate the metric measurements used in pharmacy with their basic units and symbols.
8. State the rules to follow when writing metric measurements.
9. State the units of measure of the apothecaries' system and the imperial system found in prescriptions and their equivalences in the metric system.
10. Recognize quantities expressed in Roman numerals.
11. Define *duration of treatment*.

Before learning how to calculate the final concentration of a drug (B):

12. Define what is meant by *a concentration expressed as a ratio or percentage* (%, %w/v, %w/w, %v/v, %v/w).

Before learning how to calculate the quantity of ingredients required to obtain a dilution of a stock solution or a reduction of the concentration of a preparation (D):

13. Define *dilution* and *stock solution*.

MODULE 6: PRINCIPLES AND TECHNIQUES OF HYGIENE AND ASEPSIS

CODE: 754 352

Duration: 30 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must
apply principles and techniques of hygiene and asepsis
in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Using hypothetical situations and case studies when appropriate
- Applying techniques of hygiene and asepsis in a laboratory
- Using the relevant materials

GENERAL PERFORMANCE CRITERIA

- Use of correct terminology
- Correct associations and identifications
- Relevance of explanations justifying the choice of measures
- Observance of hygiene and asepsis procedures

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Establish a relationship between micro-organisms, infection and the most common communicable diseases.	- Association of the main types of micro-organisms with the most common communicable diseases - Identification of the routes of entry of micro-organisms in the human body - Recognition of the factors that promote the growth of micro-organisms - Recognition of the factors that predispose to infection - Recognition of the signs of infection and of its consequences for oneself and others - Recognition of the methods of transmission of common diseases
B. Associate hygiene precautions intended to prevent or contain infection with concrete occupational situations.	- Association of appropriate personal and professional hygiene precautions with the given situations - Accurate reasons given to justify the precautions taken in particular situations

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
C. Apply hygiene and asepsis techniques.	- Correct choice of products according to the task - Proper performance of the following tasks: • antiseptic washing of hands • putting on and removal of protective clothing required for sterile preparations including cytotoxic drugs • unpacking of sterile materials • placing of materials under horizontal and vertical laminar flow hoods • sanitary maintenance of equipment and materials used in the preparation of drugs • taking of asepsis precautions specific to the handling of sterile products and materials

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to establish a relationship between micro-organisms, infection and the most common communicable diseases (A):

1. Define the following terms: *prophylaxis*, *antisepsis*, *asepsis*, *epidemic*, *contamination*, *infection* and *infestation*.
2. Define *bacteria*, *parasite*, *mould*, *yeast* and *virus*.
3. Distinguish between micro-organisms, microbiology, bacteriology, parasitology and virology.
4. State the beneficial and harmful effects of micro-organisms.
5. State the main micro-organisms ordinarily found on the skin and their most common locations.

Before learning how to associate hygiene precautions intended to prevent or contain infection with concrete occupational situations (B):

6. State the main personal and professional hygiene precautions to be taken in the exercise of the occupation.
7. Distinguish between the main means of controlling micro-organisms used in pharmacy technical assistance.
8. Define the purpose of plating tests and state their use in pharmacy.

Before learning how to apply hygiene and asepsis techniques (C):

9. Define *bacteriostatic agent* and state its main uses in the preparation of drugs.
10. State the main disinfectants and antiseptics used in pharmacy, their effect depending on their concentration and the risks involved in their use.
11. List sources of contamination in a parenteral area.
12. State the function of the laminar flow hood and the main characteristics of the various types.
13. State the distinctive features related to the use of a horizontal laminar flow hood and a vertical laminar flow hood.

MODULE 7: PHARMACEUTICAL APPLICATIONS SOFTWARE

CODE: 754 364

Duration: 60 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must
use pharmaceutical applications software
in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Working alone
- Using a computer
- Using the following equipment and materials:
  - applications software for a community pharmacy and applications software for a health care establishment pharmacy
  - a printer
  - a diskette containing archived files and blank diskettes
- Following instructions related to the operations to be performed and a written patient's record
- Using the required documents, with the exception of the document giving the meaning of dosage codes

GENERAL PERFORMANCE CRITERIA

- Correct use of software according to instructions
- Satisfactory application of keyboarding technique
- Speed of execution

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Transfer the archived files onto the hard disk and access the main menu.	- Correct selection of items on the menu - Observance of transfer procedure - Observance of software loading procedure
B. Use applications software for community pharmacies.	- Correct performance of the following operations: • creation of patient's record • updating of patient's record • deletion of patient's record • recording of prescriptions in patient's record • refill of a prescription • cancellation of a prescription • transfer of a prescription from one file to another • printing of label and receipt • printing of narcotic record - Accurate inputting of data
C. Use applications software for extended care facility pharmacies and hospital pharmacies.	- Correct performance of the following operations: • creation of patient's record • updating of patient's record • deletion of patient's record • recording of prescriptions in patient's record • refill of a prescriptions • modification or cancellation of a prescription • printing of therapeutic profiles and other documents intended for nurses • printing of label - Accurate inputting of data

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
D. Save data and end the work session.	- Observance of procedure for saving data - Observance of procedure for exiting software and shutting down system

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking any of the activities:

1. Review the concepts involved in turning on a computer and using a keyboard.
2. Explain the importance of strictly following procedures when using a computer.

Before learning how to transfer the archived files onto the hard disk and access the main menu (A):

3. Review the definition of *file* and *menu*.
4. Define *archived file*.
5. Review the precautions to be taken when handling diskettes.
6. Review the concepts related to the hard disk and the cassette reader.
7. Explain the importance of accurately inputting all the information required to access the network and the applications software.
8. Understand the codes required to access information.

Before learning how to use applications software for community pharmacies (B):

9. Review the concepts related to the legal aspects of a patient's record.
10. Define *chaining* and its purpose.
11. Review the definition of *prescription*.
12. Understand the codes required to produce prescriptions.
13. State the most common comments found in a patient's record and their importance.
14. State the purpose of each of the main reports and statements produced in a community pharmacy.
15. Review the concepts related to the laws governing the buying and selling of narcotics and controlled drugs.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to use applications software for extended care facility pharmacies and hospital pharmacies (C):

16. Review the legal aspects related to the content of a patient's record and to the labelling of drugs in health care establishments.
17. Describe the usefulness and content of the nursing profile and the therapeutic profile.

Before learning how to save data and end the work session (D):

18. Define *saving a text*.

MODULE 8: NON-STERILE PREPARATIONS

CODE: 754 372 **Duration: 30 hours**

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must
make non-sterile preparations
in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Working alone
- Given prescriptions
- Using pre-established preparation procedures and instructions provided by the teacher
- Using the materials necessary to prepare the required drugs

GENERAL PERFORMANCE CRITERIA

- Observance of general preparation procedure
- Observance of technical preparation procedures
- Observance of hygiene precautions
- Observance of precautions related to the use of materials and the handling of products
- Conformity of appearance of final product with criteria set for each type of preparation
- Methodical, efficient organization of work
- Completion of tasks within a time limit appropriate to the complexity of the preparation (maximum 30 minutes)

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Prepare the work.	- Accurate calculations - Correct choice of materials and products - Relevant verification of the condition of the materials and products to be used - Satisfactory preparation of scale
B. Make non-sterile preparations using various drugs.	- Observance of procedure according to the selected technique - Correct use of materials - Accurate measurement of ingredients (weight, volume) - Satisfactory reconstitution of a powdered drug
C. Make non-sterile preparations using raw materials.	- Observance of procedure according to the selected technique - Correct performance of trituration and levigation - Satisfactory use of equipment - Satisfactory homogeneity and consistency of preparation
D. Package the prepared drug.	- Correct choice of container according to the dosage form and the quantity required - Observance of bottling and packaging techniques - Cleanliness of container after bottling or packaging

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
E. Produce the label and affix it to the container.	- Inclusion of all required information - Conformity of information recorded with prescription - Proper arrangement of information on label - Consideration of the specific details of the request (drug to be stored or to be given to patient) - Neat, legible label - Label correctly affixed to container
F. Clean and store the materials and products.	- Cleanliness of materials and products - Storage of products according to the method used - Correct storage of materials

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking any of the activities:

1. Define *non-sterile preparation*.
2. Review the distinctive characteristics of the dosage forms used in non-sterile preparations.
3. Review the nature and functions of an excipient and an adjuvant.
4. Review the concepts related to the calculation of the quantity of ingredients required for a preparation.
5. Review the concepts related to the meaning of abbreviations contained in a prescription.

Before learning how to prepare the work (A):

6. Review the hygiene precautions related to the use of materials and the handling of pharmaceutical products.
7. Recognize the materials used for various non-sterile preparations and describe their uses.
8. State the signs of a deteriorating product.
9. Define *expiry date of a product*.
10. State the factors likely to influence the stability of a product.

Before learning how to make non-sterile preparations using raw materials (C):

11. State the most common raw materials used in non-sterile preparations.
12. Define *trituration* and *levigation*.

Before learning how to produce the label and affix it to the container (E):

13. Review the legal requirements related to the labelling of drugs.

Before learning how to clean and store the materials and products (F):

14. Review the hygiene techniques related to the maintenance of materials.

MODULE 9: DISPENSING IN COMMUNITY PHARMACIES

CODE: 754 388 **Duration: 120 hours**

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must
perform tasks related to dispensing in community pharmacies
in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given a variety of hypothetical situations and legible prescriptions of varying complexity
- Using a computer, a printer and applications software for a community pharmacy
- Using the necessary references and materials

GENERAL PERFORMANCE CRITERIA

- Observance of general preparation procedure
- Observance of hygiene and safety rules
- Time-saving, effective organization of work
- Prepared drugs in conformity with prescriptions
- Observance of time limits (6 to 20 minutes depending on the complexity of the preparation)

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Verify the prescriptions.	- Identification of missing, incomplete or inaccurate information - Gathering of all the information required for the creation of the patient's record, the preparation of the drug and payment
B. Create or update patients' records and produce labels for the drugs to be prepared.	- Recording of all required information related to the profile of each patient and the drugs prescribed - Accurate information recorded in the file according to the data in the prescription - Observance of specific requirements for the partial preparation of a narcotic - Consideration of the number of refills and the duration of treatment in decisions related to the refilling of a prescription - Verification of the completeness and accuracy of information recorded on the label - Observance of the specific requirements for labelling a weekly pill organizer - Relevant comments related to dosage for certain classes of drugs or to the patient's state of health

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
C. Prepare the drugs and label the containers.	- Satisfactory preparation of materials and products according to the drugs to be prepared - Account taken of the expiry date and information contained in the prescription when selecting the drug from the shelf - Observance of correct preparation method for the type of drug prescribed and its packaging - Accurate quantity of drug prepared - Cleanliness of container after bottling or packaging - Observance of standards related to the manner of affixing the label to the container
D. Prepare, if applicable, the receipts and insurance claims.	- Proper preparation of documents - Inclusion of all information required on each document prepared - Correct determination of price of drug - No errors or erasures - Neat, legible entries
E. File the prescriptions.	- Observance of established filing system - Consideration of the distinctive filing system for prescriptions for narcotics and controlled drugs

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
F. Record the sale of narcotics and controlled drugs.	- Inclusion of all information required - Relevance of information recorded - Information recorded at appropriate time - No errors in information
G. Clean and store the products and materials used.	- Cleanliness of materials before and after use - Storage of drugs at appropriate time and according to established system - Proper storage of materials used

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking any of the activities:

1. State the procedure for filling a prescription that must be verified by the pharmacist.
2. State the most common errors made when filling a prescription and precautions against them.

Before learning how to verify the prescriptions (A):

3. Review the concepts related to the laws applicable to prescriptions (e.g. the right to prescribe, the content of patients' records, the content of the prescription, validation criteria).
4. State ways of finding the name of a prescribing doctor using his or her license number, when the name is illegible on the prescription.
5. Review the concepts related to classes of drugs, common and brand names, dosage forms, concentration and routes of administration.

Before learning how to create or update patients' records and produce labels for the drugs to be prepared (B):

6. Review the concepts related to the laws applicable to the control of narcotics and controlled drugs.
7. Define *third-party payer* and distinguish between the various organizations that play this role.
8. Review the concepts related to the laws applicable to the labelling of drugs and poisons.
9. Explain the importance of comments related to the dosage of certain drugs or to the state of health of certain patients.
10. Distinguish the actual expiry date of a drug sold from the expiry date established by the manufacturer.
11. Define *weekly pill organizer* and state its purpose.
12. Define *auxiliary label* and state its usefulness.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to prepare the drugs and label the containers (C):

13. Review the concepts related to non-sterile preparations.
14. Review the hygiene concepts related to the handling of drugs.
15. Use ways of quickly counting tablets and capsules.

Before learning how to prepare, if applicable, the receipts and insurance claims (D):

16. State the methods used in community pharmacies for establishing the cost of insured drugs.
17. Define *drug not payable by a third party*.
18. Determine the reason for refusal of payment by a third-party payer on the basis of the statement.
19. State the terms of the agreement that apply to a new submission to a third-party payer.

Before learning how to clean and store the products and materials used (G):

20. Review the hygiene techniques related to the maintenance of materials.

MODULE 10: PARENTERAL DRUGS

CODE: 754 394 **Duration: 60 hours**

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must
apply concepts related to parenteral drugs
in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Working with a selection of parenteral drugs from the 125 most commonly prescribed
- Working with the concentration of active ingredients in 25 commonly prescribed parenteral drugs
- Taking into account the legal and therapeutic classifications of drugs used by the Régie de l'assurance-maladie
- Without using reference materials

GENERAL PERFORMANCE CRITERIA

- Use of correct terminology
- Accurate identifications and associations

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Recognize the class or subclass of common parenteral drugs.	- Recognition of the legal class of drugs according to the extent to which they are controlled - Recognition of the therapeutic class or subclass of drugs
B. Associate the brand names of common parenteral drugs with their common names.	- Association of brand name(s) with common name - No spelling errors in common and brand names
C. Associate common parenteral drugs with their dosage forms and presentation.	- Association of each of the drugs presented with its dosage forms - Association of drugs with their presentations according to their volume
D. Recognize the concentration of active ingredients in common parenteral drugs.	- Recognition of the concentration of active ingredients for each drug presented
E. Recognize the routes and methods of administration of parenteral drugs.	- Identification of each route and method of administration for a variety of drugs - Recognition of each abbreviation for parenteral routes of administration
F. Recognize the specific procedures for storing various types of parenteral drugs.	- Account taken of the manufacturer's instructions, the regulations regarding the storage of drugs and the established storage system

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking any of the activities:

1. Define *parenteral drug*.

Before learning how to associate common parenteral drugs with their dosage forms and presentation (C):

2. State the main dosage forms of parenteral drugs, their characteristics and the abbreviations used to represent them.
3. State the main characteristics of each presentation of small volumes and large volumes.
4. Distinguish between a single-dose vial and a multi-dose vial.

Before learning how to recognize the routes and methods of administration of parenteral drugs (E):

5. State the main routes of administration for parenteral drugs.
6. Distinguish between the various methods of administration of parenteral drugs.
7. State the most commonly used devices and accessories for administering parenteral drugs.

MODULE 11: COMMUNICATION AND TEAMWORK

CODE: 754 403

Duration: 45 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to
communicate in the workplace and work in a team.

SPECIFICATIONS

At the end of this module, the students will:

- Be familiar with the basic elements of communication.
- Be familiar with the aspects of communication particular to pharmacy technical assistants.
- Be familiar with the principles and techniques of working in a team.
- Evaluate their ability to communicate and to work in a team.

LEARNING CONTEXT

PHASE 1: **Familiarization with the Basic Elements of Communication**

- Working alone, analyzing the physical layout of the room and its impact on communication; noting the factors that favour transmitting or receiving messages and those that do not; sharing their results with the class and suggesting ways of improving the situation.

- Working in groups of three or four, participating in an activity involving the association of various elements of communication with the following categories: communication process, types of communication, communication aids, obstacles to communication, qualities of communication.

- Participating in a class discussion of the group work and completing the information in certain categories.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 1 (cont.):

- Participating in various activities involving the perception of people and objects and highlighting the following aspects: differences observed in the perception of the same person or object by different people; reasons for these differences; the effect of a first impression; the influence of a first impression on the selection of aspects that confirm the initial perception; the importance of being open to the other person's perceptions in communication.

PHASE 2: **Familiarization with the Techniques of Various Types of Communication**

- Discussing the different types of communication and attitudes favouring good communication.

- Given a hypothetical situation provided by the teacher, formulating a message and recording it on tape; once all the students have recorded their messages, listening to the messages and evaluating them on the basis of the following: clearness of language, accuracy of message, use of correct terminology, tone of voice, speed of delivery.

- Participating in a discussion as sender and receiver in order to become familiar with various verbal communication techniques such as questioning, listening and reformulation.

- Participating in an activity in which a message is transmitted from one person to another; once the activity has been done, listening to the initial message and participating in a class discussion of the following topics: loss of information in a retransmitted message, the difficulty of reformulating a message, ways of determining the initial content of a message.

- Participating in various non-verbal communication activities in order to become familiar with the following factors: look, touch, silence, body language, personal space, contradiction between verbal and non-verbal messages.

- Participating in an activity in order to become familiar with various aspects of written communication: the importance of reading instructions when producing documents, the qualities of effective written communication, the consequences of poor written communication.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 3: **Application of the Different Verbal and Non-Verbal Communication Techniques in a Hypothetical Pharmacy Situation**

- Participating in a class discussion of the characteristics of communication particular to pharmacy technical assistants: role in greeting and directing customers, appropriateness of topic of conversation according to the person they are communicating with, the appropriate types of communication according to the type of customer, the limits to observe in communication.

- Working in small groups and given a list of communication aids and obstacles to communication, participating in the development and production of a role play representative of situations arising in pharmacies.

- Watching the other groups' role plays and noting the behaviours that promote or hinder communication; sharing their observations and the effect of these behaviours on the quality of communication.

- Participating in various activities in order to decode non-verbal signs related to feelings often experienced by pharmacy customers such as shyness, nervousness, worry, satisfaction, aggression and dissatisfaction.

- Taking turns participating in and watching role plays related to ways of approaching people in various situations: aggressive people, people with physical handicaps or cognitive deficiencies, people who are unfamiliar with the language, worried or nervous people, and so on.

- Participating in a class discussion of their observations and suggesting, if applicable, appropriate ways of improving communication in the various situations.

PHASE 4: **Familiarization with Teamwork**

- Participating in a discussion of the following topics: type of group, needs of the group, position or role of each member of the group, conditions for successful teamwork.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 4 (cont.):

- Participating in a role play in order to try out various roles in a team; watching the other groups' role plays and observing the roles played by the members of a team; noting the role of one member of the team and the amount of time he or she played this role with respect to the total duration of the role play.

- Sharing the observations they made during the role plays and their perception of themselves in the various roles, their satisfaction with their participation, and possible improvements to the ability to work in a team.

- Participating in an activity emphasizing the importance of cooperation and negotiation of tasks, workspace and the duration of participation in effective teamwork.

- Participating in a discussion of the following topics: composition of teams in retail pharmacies and health care establishment pharmacies, tasks carried out as a team, responsibilities of team members, ways of becoming part of an existing team, ways of reducing friction within a team, procedure to follow to solve a problem, ways of ensuring continuity of work from one team to another.

PHASE 5: **Evaluation of Their Ability to Communicate and to Work in a Team**

- Summarizing their strengths and weaknesses with respect to communication and teamwork, the impact of their strengths and weaknesses on the exercise of the occupation, recently acquired learning, and means of improving their communication skills and their ability to work in a team.

- Presenting the summary to the teacher for discussion and joint evaluation.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

INSTRUCTIONAL GUIDELINES

The teacher should:

- Inform students at the beginning of the module of expectations, procedures and rules related to the activities.
- Make available to students the materials required to carry out the activities.
- Determine in advance the duration of each activity, inform students of it and respect it.
- Encourage students to express themselves.
- Create a climate that stimulates students' interest by using the appropriate leadership techniques.
- Lead class discussions.
- Provide support in group activities.
- Correct errors as they arise, clarify points to ensure that students understand and provide additional information if necessary.
- Ensure that the examples used and the hypothetical situations created are representative of the workplace in pharmacy.
- Motivate students by demonstrating the skills being discussed.
- Encourage students to participate in group discussions and activities.
- Assist students with their evaluation and help them find ways of improving.

PARTICIPATION CRITERIA

PHASE 1:

- Participate seriously in the activities.
- Participate actively in class discussions.

PHASE 2:

- Participate seriously in the activities.
- Participate actively in discussions.

PHASE 3:

- Participate actively in discussions.
- Participate seriously in the activities.
- Share the observations they made during the role plays.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

PARTICIPATION CRITERIA

PHASE 4:

- Participate seriously in the activities.
- Participate actively in class discussions.

PHASE 5:

- Produce the required assignment.
- Discuss their self-evaluation with the teacher.

MODULE 12: OCCUPATIONAL HEALTH AND SAFETY

CODE: 754 411 **Duration: 15 hours**

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to
take occupational health and safety precautions.

SPECIFICATIONS

At the end of this module, the students will:

- Be familiar with the legal provisions related to occupational health and safety in pharmacy technical assistance.
- Be familiar with the hazards and preventive measures related to the exercise of the occupation.
- Know the procedure to follow in case of accident.
- Evaluate their behaviour with respect to prevention.

LEARNING CONTEXT

PHASE 1: **Familiarization with the Legal Provisions Related to Occupational Health and Safety in Pharmacy Technical Assistance**

- Working in small groups, learning about the provisions of the *Act respecting occupational health and safety* related to the exercise of the occupation of pharmacy technical assistant; making a list of these provisions.

- Participating in a class discussion of the provisions identified in the preceding activity and attempting to give concrete examples of situations likely to arise in pharmacy and justifying legal recourse.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 2: **Familiarization with the Hazards and Preventive Measures Related to the Exercise of the Occupation**

- Working in small groups, carrying out research in order to identify risk factors related to the exercise of the occupation; noting the results.

- Participating in a class discussion of the results of their research and suggesting preventive measures appropriate to the risk factors indicated.

- Participating in an activity in order to become familiar with the main hazardous materials used in pharmacies and to understand the meaning of the pictograms on these materials.

- Participating in a discussion about stress, its sources, its most common signs and its effects on a person's health and work.

- Given diagrams or hypothetical situations, determining the risk factors for health and safety; noting their observations and indicating for each risk factor identified the possible hazards and the preventive measures to be taken to avoid accidents.

- Attending a lecture on the hazards and preventive measures related to the handling of cytotoxic drugs.

PHASE 3: **Familiarization with the Procedure to Follow in Case of Accident**

- Participating in a discussion of the accidents most likely to occur in the workplace.

- Attending a demonstration by the teacher of procedures to follow in dangerous situations involving cytotoxic drugs (e.g. spilling the drug, contamination of clothing or flow hood, reception of damaged goods); taking notes.

- Participating in activities involving the application of preventive measures or procedures to follow in case of accidents likely to occur in the workplace.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 4: **Evaluation of Their Behaviour with Respect to Prevention**

- Taking stock individually of their behaviour with respect to health and safety in their daily activities; noting behaviours that could be improved.

- Presenting their results to the teacher and discussing them with respect to the risks involved in working in a community pharmacy and in a health care establishment pharmacy.

INSTRUCTIONAL GUIDELINES

The teacher should:

- Make available to students the documentation and materials required to carry out the activities.
- Determine in advance the duration of each activity, inform the students of it and respect it.
- Direct the research and help students understand the *Act* by giving concrete examples.
- Provide appropriate support in group activities.
- Plan and lead class discussions.
- Encourage students to express themselves.
- Ensure that the examples used and the hypothetical situations created are representative of each workplace.
- Correct incorrect statements as they arise during discussions and provide additional information if necessary.

PARTICIPATION CRITERIA

PHASE 1:

- Gather relevant information on the provisions of the *Act respecting occupational health and safety*.
- Participate actively in class discussion.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

PARTICIPATION CRITERIA

PHASE 2:

- Participate actively in discussions.
- Participate seriously in the activities.
- Gather information on the topics discussed in the lecture.

PHASE 3:

- Participate actively in discussion.
- Participate seriously in the activities.

PHASE 4:

- Produce a serious evaluation of their behaviours with respect to prevention.
- Be willing to discuss the results of their self-evaluation with the teacher.

MODULE 13: CUSTOMER SERVICE AND INVENTORY MANAGEMENT

CODE: 754 425

Duration: 75 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must
apply customer service and inventory management techniques
in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Working alone
- With the help of an assistant playing the role of a customer, depending on the assignment
- Given hypothetical situations including the required information and instructions
- Using the appropriate references and materials

GENERAL PERFORMANCE CRITERIA

- Observance of rules of professional ethics
- Satisfactory application of communication techniques
- Satisfactory application of customer service and inventory management techniques
- Ability to adapt to various types of customers and unforeseen events
- Observance of established policies on customer service and inventory management
- Satisfactory prioritization of tasks to be performed

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Greet customers and answer the telephone.	- Observance of greeting procedure - Observance of telephone etiquette: • taking a call • transferring a call • taking a message • terminating a call - Respectful and courteous attitude - Answers appropriate to requests and to limits of their position - Use of approach appropriate to type of customer and of clear and accurate language - Discretion in discussions with customers
B. Provide various types of services: • transmit information related to the use of prescription accessories for diabetic self-care; • perform a pregnancy test; • adjust medical devices and accessories and provide information on their adjustment and use.	- Relevance of information provided - Use of clear, accurate language adapted to the customer - Satisfactory performance of pregnancy test - Adoption of preventive and hygiene measures appropriate to pregnancy tests - Satisfactory adjustment of medical devices and accessories
C. Operate a cash register and prepare deposit slips.	- Correct performance of opening operations on the cash - Correct performance of current operations on the cash - Correct performance of closing operations on the cash - Accuracy of information recorded on deposit slip

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
D. Place an order, receive merchandise, price it and display it.	- Satisfactory evaluation of products to be ordered according to needs and established policies - Satisfactory identification of each product to be ordered by manufacturer's code - Correct programming of machine according to the order to be placed - Observance of procedure for receiving merchandise - Correct use of method for controlling expiry dates - Correct determination of follow-up in case of claims and return of merchandise - Proper pricing of each product - Proper displaying of merchandise according to the system used and stock rotation - Determination of appropriate measures for removing expired products from shelves

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to greet customers and answer the telephone (A):

1. Describe the procedure for greeting customers.
2. Describe the importance of using respectful language in communication with customers.
3. Use the various features of a telephone with more than one line.
4. State the nature of telephone calls that pharmacy technical assistants in community pharmacies or health care establishment pharmacies are generally required to take.
5. State the rules to follow when answering and transferring telephone calls.
6. State the information to gather for a delivery.
7. Relate concepts of communication to procedures for greeting customers or answering or making telephone calls.
8. Relate the rules of professional ethics to the selection of topics of conversation and information to give the customer.
9. State attitudes promoting customers' trust.
10. Relate concepts of classification and dosage forms of drugs when directing the customer to the products requested.
11. State the various aisles of a pharmacy that contain over-the-counter drugs, poisons and pharmaceutical products.

Before learning how to provide various types of services (B):

12. Define *diabetes*, *glycemia* and *glycosuria*.
13. Recognize the main components of the prescription accessories most commonly sold in community pharmacies for diabetic self-care and directions for their use.
14. State the most commonly sold or rented prescription accessories in pharmacies and their specific use.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to operate a cash register and prepare deposit slips (C):

15. Recognize the various components of a cash register and their function.
16. Recognize the various data appearing on a cash register tape used as a receipt of daily sales.
17. Relate the keyboarding technique to the use of a cash register.
18. Describe the rules to be applied when receiving money in order to avoid errors in change.
19. State the order in which money should be placed in the till.
20. Define *balancing a cash*.
21. Distinguish between the most common methods of payment used in pharmacies and how to process them.
22. State the total value of various containers filled with different denominations of change (10¢, 25¢, $1.00).
23. Indicate ways of quickly and correctly counting change and bills.
24. Define *partial deposit*.

Before learning how to place an order, receive merchandise, price it and display it (D):

25. Distinguish between a manufacturer and a supplier.
26. Explain the importance of being familiar with the manufacturers of the most common drugs.
27. Understand the information on a supplier's drug list.
28. Relate legal concepts applicable to the purchase of narcotics and controlled drugs.
29. Distinguish between *cost price* and *retail price*.
30. Calculate the retail price of a drug or pharmaceutical product on the basis of its cost price.
31. Describe the usual method of displaying merchandise.
32. Define *stock rotation* and the most common methods.
33. State the commonly used means of displaying products to promote sales.
34. Define *drug code*.

MODULE 14: DISPENSING IN HEALTH CARE ESTABLISHMENTS

CODE: 754 435

Duration: 75 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must
perform tasks related to dispensing in health care establishments
in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given hypothetical situations
- Given legible simulated prescriptions that conform to the usual presentation used in health care establishments and that require a variety of:
  - dosage forms, and routes and methods of administration
  - dosage schedules
  - comments
- Using a typewriter or a computer, printer and pharmaceutical applications software for a health care establishment
- Using the necessary references and materials

GENERAL PERFORMANCE CRITERIA

- Observance of general preparation procedure
- Observance of established policies
- Observance of hygiene and safety rules
- Methodical, efficient organization of work
- Prepared drugs in conformity with prescriptions
- Observance of time limit (15 prescriptions of varying complexity in two hours)

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Sort the prescriptions in order of priority.	- Correct order of prescriptions according to priority and unit and room numbers
B. Read the prescriptions, create or update patients' records and produce labels.	- Identification of missing, incomplete or inaccurate information - Correct steps taken to solve a problem related to the legibility of a prescription - Proper determination of drug to be prepared - All information included in patient's record - Accurate calculations - Application of standards for producing labels - Consideration of the particular requirements for producing labels for ward-issue medication
C. Prepare and label the drugs.	- Satisfactory preparation of drugs according to the information given in the prescription or requisition - Observance of methods of packaging drugs • traditional packaging • single doses packaged in cells - Accurate quantity prepared according to the information given in the prescription and the period during which it is to remain in effect - Observance of standards related to labelling

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
D. Prepare drugs to be repeated for a patient care unit in an extended care facility, receive the returned drugs and restock the cart.	- Satisfactory preparation of drugs to be repeated: • prepackaging • preparation of prescription refills • arrangement of drugs - Correct processing of returned drugs - Verification of: • expiry date • condition of drug • conformity of drug and its quality with established list or prescription - Proper arrangement of drugs on cart
E. Ensure the availability of stock.	- Satisfactory verification of stock in: • pharmacy stockroom • emergency cabinet • night cabinet - Conformity of stocks with established lists - Satisfactory recording of data related to inventory management
F. Perform tasks related to the distribution of narcotics and controlled drugs.	- Complete and relevant information recorded in registry and on the form intended for nurses - Information recorded at correct time - No errors - Satisfactory inventory control

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
G. Produce the documents for the nurses.	- Production of each document requested - Inclusion of all required information in each document - Correct number of documents produced - No errors
H. Arrange the drugs used and file the documents produced.	- Arrangement of drugs according to pharmacologic classification - Filing of each document at proper time and according to established filing system
I. Clean and store the products and materials used.	- Cleanliness of materials before and after use - Proper storage of products and materials

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking any of the activities:

1. Describe the progress of a prescription in a health care establishment from its issue to the administering of the drug.
2. Define *protocol in a health care establishment.*
3. Define *stat* and its use in health care establishments.
4. State the function of dispensing guides in health care establishments.
5. Review the classes and subclasses of drugs and the difference between a common name, a generic name and a brand name.
6. Define *drug included in the formulary*, *restricted drug* and *drug used for a specific medical purpose*.

Before learning how to read the prescriptions, create or update patients' records and produce labels (B):

7. Indicate the main illnesses for which the ministère de la Santé et des Services sociaux covers the cost of medication.
8. Review the legal requirements related to the content of prescriptions and patients' records.
9. Review the procedures for using applications software for health care establishment pharmacies.
10. Review the sections of the *Pharmacy Act* that apply to the labelling of drugs.
11. State the particular requirements for labelling drugs in health care establishments, especially with regard to the content of the label, the use of abbreviations and the arrangement of information.
12. Define *ward-issue medication.*
13. Describe what is meant by the period during which a prescription remains in effect in a health care establishment.

Before learning how to prepare and label the drugs (C):

14. State the various distribution systems used in health care establishments and their advantages.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to prepare drugs to be repeated for a patient care unit in an extended care facility, receive the returned drugs and restock the cart (D):

15. Recognize the particular requirements related to the content and arrangement of drugs on a cart, taking into account the type of cart and its function (e.g. ward-issue medication, unit-dose system, emergency cart).

Before learning how to ensure the availability of stock (E):

16. State the various types of drug stocks in health care establishments and their uses.

Before learning how to perform tasks related to the distribution of narcotics and controlled drugs (F):

17. Review the rules related to the recording of narcotics and controlled drugs in the registry.
18. State the function of the sheet intended for nurses.
19. State the particular requirements related to the distribution of narcotics and controlled drugs in health care establishments.

Before learning how to produce the documents for the nurses (G):

20. Review the concepts related to the content and function of each document used.

Before learning how to arrange the drugs used and file the documents produced (H):

21. Describe the distinctive characteristics of the method of arranging drugs and filing documents in health care establishment pharmacies.

MODULE 15: STERILE PREPARATIONS

CODE: 754 444

Duration: 60 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must
make sterile preparations
in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Working alone
- Working at a workstation equipped with a laminar flow hood
- Given legible prescriptions
- Using pre-established protocols and technical procedures
- Using the materials necessary to prepare the required drugs

GENERAL PERFORMANCE CRITERIA

- Observance of general preparation procedure
- Observance of established protocols and technical procedures
- Observance of hygiene and asepsis rules
- Observance of safety rules
- Observance of precautions related to the use of materials and the handling of products
- Conformity of sterile preparations with the information given in the prescription and instructions
- Observance of time limit (10 to 60 minutes depending on the type of preparation)

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Read the prescription and prepare the work.	- All calculations done: • quantity of ingredients • number of bottles of intravenous solution, if applicable - Accurate calculations according to the information given in the prescription - Presence of all materials and products required for the type of drug to be prepared and the type of flow hood to be used - Complete verification of the condition of materials and products
B. Produce the label.	- Inclusion of all information required for the type of preparation - Proper arrangement of information on label - Conformity of information recorded with the prescription or, if applicable, with protocol - Neat, legible label

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
C. Use basic techniques for making sterile preparations.	- Correct use of each of the following techniques: • insertion of filter between needle and syringe • removal of liquid from ampule and vial • reconstitution of a powder within a vial • transfer of a solution from a sterile container to a bag or bottle for intravenous fluids • transfer of large volume of parenteral fluid to another sterile container • removal of liquid from a Mix-O-Vial • installation of tubing on bag of intravenous fluid • extraction of air from the tube
D. Add an intravenous additive.	- Correct performance of each step of the technique
E. Prepare for parenteral feeding using half-filled bags.	- Correct performance of each step of the technique

FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
F. Prepare a cytotoxic drug in a simulation.	- Correct use of techniques for reconstituting a powder: • with a hydrophobic edge filter • under negative pressure - Correct use of techniques for removing liquid from a vial: • with a hydrophobic edge filter • under negative pressure - Observance of all safety rules related to the handling of cytotoxic drugs
G. Affix the label to the container.	- Proper positioning of label according to the type of container
H. Tidy up the work area and store the products and materials.	- Clean materials - Products arranged according to established system - Proper storage of materials - Disposal of waste according to type of materials

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to read the prescription and prepare the work (A):

1. Distinguish between the types of sterile preparations generally made in health care establishments.
2. State the materials required for the different types of preparations and the function of each of their components.
3. State the main characteristics of needles, syringes and filters.
4. State the precautions to take when using glass and handling needles.
5. State the main characteristics of devices for administering, adding to and reconstituting parenteral fluids.
6. Define each term related to the quality standards for parenteral drugs: *sterility, turbidity, viscosity, absence of particles* and *apyrogenic*.
7. Define *pH* and *stability* of a product.
8. State the main signs of incompatibility between products in a mixture.
9. State the hygiene and asepsis measures to be taken when preparing sterile drugs.
10. Define the following terms: *perfusion time, flow rate, drops per minute, micro-drip* and *macro-drip*.

Before learning how to use basic techniques for making sterile preparations (C):

11. State the main diluents used in the reconstitution of sterile drugs and their characteristics.

Before learning how to add an intravenous additive (D):

12. State the main types of solutions and additives used in health care establishment pharmacies.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to prepare for parenteral feeding using half-filled bags (E):

13. Understand the most common abbreviations used to denote parenteral feeding.
14. State the main characteristics of stock solutions used in parenteral feeding.
15. State the most commonly used additives in parenteral feeding.
16. Explain the importance of adding ingredients in a specific order according to the substances or solutions used in parenteral feeding.
17. Distinguish between the various methods of preparing a parenteral feeding solution.

Before learning how to prepare a cytotoxic drug in a simulation (F):

18. Review the risks involved in manipulating cytotoxic drugs and the preventive measures to apply to avoid affecting one's health.
19. Define *negative pressure* and its role in the preparation of cytotoxic drugs.
20. Define *hydrophobic edge filter* and its role in the preparation of cytotoxic drugs.

MODULE 16: PLANNING A JOB SEARCH

CODE: 754 451

Duration: 15 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to
plan a job search.

SPECIFICATIONS

During this module, the students will:

- Become familiar with the steps involved in planning a job search.
- Prepare a résumé and a letter of introduction.
- Become familiar with techniques for preparing and undergoing job interviews

LEARNING CONTEXT

PHASE 1: **Familiarization with Job Search Procedures**

- Learning about the steps involved in planning a job search; taking notes.

- Discussing specific aspects of the job search in pharmacy (i.e. types of establishments, how to target organizations, who to contact, job requirements).

- Discussing means and attitudes that contribute to the success of the job search.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 2: **Introduction to Preparing a Résumé and a Letter of Introduction**

- Working in small groups, analyzing various model résumés and letters of introduction.
- Participating in a class discussion of the results of the group work and of the importance of presenting oneself to advantage in these sorts of documents.
- Working individually, preparing their own résumés and letters of introduction.
- Submitting these documents to the teacher and discussing the quality of the work with him or her.

PHASE 3: **Participation in a Simulated Job Interview**

- Learning about the general procedure of a job interview and noting the steps involved in preparing for this type of interview.
- Participating in preparing and carrying out a simulated job interview.
- Watching the other students' simulated job interviews.
- Participating in a class discussion of the attitudes and behaviours to be adopted or avoided during a job interview and of steps to be taken after a job interview.
- Analyzing their performance and discussing it with the teacher.

INSTRUCTIONAL GUIDELINES

The teacher should:

- Provide the students with relevant reference material.
- Lead class discussions.
- Encourage students to participate and express their opinions.
- Organize the simulation exercises and provide students with support.
- Promote a serious and respectful attitude during presentations and evaluations.
- Encourage self-evaluation.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

PARTICIPATION CRITERIA

PHASE 1:

- Note the main steps in planning a job search.
- Participate seriously in discussions.

PHASE 2:

- Participate actively in discussions.
- Show diligence in the preparation of their résumés and letters of introduction.
- Participate seriously in the evaluation of their résumés and letters of introduction.

PHASE 3:

- Note the steps to be taken before undergoing a job interview.
- Participate seriously in the simulated job interview.
- Participate actively in the class discussion.
- Show diligence in their evaluation of their performance in the job interview.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking the activities of Phase 2:

1. Define the purpose of a résumé and letter of introduction, their content and the qualities they should have.
2. List the documents that should accompany a résumé.
3. Explain the importance of using appropriate vocabulary and correct English in résumés and letters of introduction.

MODULE 17: PRACTICUM IN AN EXTENDED CARE FACILITY

CODE: 754 466

Duration: 90 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to
perform occupational tasks in an extended care facility.

SPECIFICATIONS

During this module, the students will:

- Become familiar with the physical and functional organization of the pharmacy department.
- Perform occupational tasks characteristic of this type of establishment, under supervision and alone.
- Evaluate their participation in the practicum.

LEARNING CONTEXT

PHASE 1: **Familiarization with the Practicum Setting**

- Establishing contact with the supervising pharmacist and with the pharmacy technical assistant.

- On a guided tour, learning about the physical characteristics of the facility, its general policies, the services offered (e.g. cafeteria, parking), and the functions of those persons most likely to come into contact with pharmacy personnel.

- Learning about the organization of the pharmacy department (e.g. types of rooms, physical layout, personnel) and the way it operates (e.g. procedures, filing system, policies on filling prescriptions); taking notes.

- Learning about the schedule for the coming days and about specific instructions for the work to be done; asking questions if necessary.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 1 (cont.):

- Observing the work of the pharmacy technical assistant (i.e. tasks performed, arrangement of materials, products available, distribution system used); taking notes.

- Learning how to use the computer and software and about procedures to be followed when using them.

PHASE 2: **Gradual Participation in Occupational Tasks**

- Preparing, under the direct and indirect supervision of the pharmacy technical assistant, ward-issue medication according to the requisitions received and drugs for the emergency and night cabinets.

- Verifying an order received from a supplier and informing the pharmacy technical assistant of the conformity or non-conformity of the merchandise and the condition of goods received; storing the products; recording in the registry, if applicable, the narcotics and controlled drugs and noting expiry dates.

- Performing, under supervision, each of the steps involved in prepackaging various drugs.

- Participating in the filling of prescriptions by performing the following tasks: counting or measuring the required quantity of drugs, choosing the appropriate containers, packaging the drugs, affixing the labels and, if applicable, the auxiliary labels, storing the products and materials used.

- Inputting the data necessary to produce labels and update patients' records daily, under indirect supervision; verifying the accuracy of the information in each document produced.

- Preparing, under direct and indirect supervision, the required magistral preparations.

- Participating, on at least two occasions, in the following tasks: receiving the cart or drugs returned from a patient care unit, performing tasks related to the distribution of narcotics and controlled drugs.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 2 (cont.):

- Participating daily, with the supervising pharmacy technical assistant, in discussions related to the tasks performed, new aspects of the job, points to be clarified and means of improving performance.

- Writing daily in a journal, describing the tasks performed, important or new events and, if applicable, the difficulties encountered or errors made and means of overcoming or correcting them; keeping their notes for discussion with the teacher.

PHASE 3: **Autonomous Performance of Occupational Tasks**

- Answering the telephone daily and giving information, providing the service or referring the call to the pharmacist.

- Producing daily the various documents required (e.g. patients' records, labels); filing or sending out the documents produced.

- Performing, according to the established routine, the tasks usually assigned to pharmacy technical assistants and, if applicable, responding to unforeseen or urgent requests.

- Writing daily in the journal, describing tasks performed and, if applicable, new aspects of the job, the difficulties encountered, pleasant and unpleasant experiences; keeping their notes for discussion with the teacher.

PHASE 4: **Evaluation of the Quality of Their Work**

- Analyzing, on at least three occasions, the quality of their work (i.e. their professional behaviour; their ability to organize their work efficiently; observance of the limits of their position, established policies and instructions; order and neatness; the quality of the tasks performed; work pace; quality of communication with pharmacy staff and patient care unit personnel).

- Meeting, on at least three occasions, with the teacher in order to convey the content of their journal and the results of their self-evaluation for each of the aspects mentioned above.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 4 (cont.):

- Meeting, on at least two occasions during the practicum, with the supervising pharmacist in order to discuss the work done and to verify his or her degree of satisfaction with respect to their attainment of the objective.

- Meeting with the teacher at the end of the practicum to discuss the quality of their participation in the practicum.

INSTRUCTIONAL GUIDELINES

The teacher should:

- Prepare a follow-up chart before the practicum including all aspects on which the students must evaluate themselves during the practicum; provide each student with a copy of the chart.
- Obtain the cooperation of each of the persons involved in the supervision of the practicum and clarify the procedure of the practicum as well as the responsibilities of each, specifically with respect to evaluation.
- Plan follow-up meetings and inform students of the times fixed for these meetings.
- Ensure that the supervising personnel provide the appropriate support while allowing the students to exercise their autonomy.
- Ensure that the schedule made by the supervising pharmacist takes into account the objectives of the practicum and the activities of the pharmacy service or department.
- Ensure follow-up of the practicum by gathering the students' comments and observations, as well as those of the supervising pharmacist and pharmacy technical assistant.
- In meetings with students and supervising pharmacists, ensure that the objectives of the practicum are being met.
- In meetings, encourage students experiencing difficulties.
- Ensure that students write regularly in their journal and complete the follow-up chart as requested.
- In meetings, discuss with students the content of their charts and journals.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

PARTICIPATION CRITERIA

PHASE 1:

- Write in their journal the information gathered and their observations with respect to the various points to be dealt with.
- Show good judgment in comments and questions.
- Avoid needlessly disturbing the work of pharmacy staff when observing.

PHASE 2:

- Follow instructions related to the performance of activities and to the organization and procedure of the work.
- Adopt a positive attitude toward comments.
- Be willing to adapt to change and new situations.
- Show an interest in improving the quality of their work.
- Write their daily journal as requested.

PHASE 3:

- Follow instructions related to the performance of their duties.
- Show diligence in performing the tasks.
- Show diligence in following the rules of hygiene and professional ethics.
- Show initiative and resourcefulness.
- Show diligence in establishing appropriate working relationships.
- Write their daily journal as requested.

PHASE 4:

- Complete their chart as requested.
- Participate seriously in the scheduled meetings.
- Adopt a positive attitude toward comments.
- Suggest means of improvement.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking any of the activities:

1. State the purpose of an extended care facility and the type of patients it serves.
2. Become aware of the main tasks and specific characteristics of the work of pharmacy technical assistants in extended care facilities.
3. Become aware of the objective of the practicum and the general procedures.
4. State the purpose of the journal and the importance of recording relevant information.
5. Review the rules of hygiene and safety to be followed in performing their tasks.
6. Review the rules of professional ethics and the relevant legal provisions.
7. Review the principles and techniques of communication to be applied in their relationships with other staff members.
8. Review aspects of policies and regulations related to filling prescriptions in health care establishment pharmacies.

MODULE 18: PRACTICUM IN A COMMUNITY PHARMACY

CODE: 754 476

Duration: 90 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to
perform occupational tasks in a community pharmacy.

SPECIFICATIONS

During this module, the students will:

- Become familiar with the physical and functional organization of pharmacies in general and the prescription counter in particular.
- Perform various occupational tasks under the supervision of a pharmacy technical assistant.
- Perform occupational tasks autonomously.
- Evaluate their participation in the practicum.

LEARNING CONTEXT

PHASE 1: **Familiarization with the Practicum Setting**

- Establishing contact with the supervising pharmacist and introducing themselves; meeting the supervising pharmacy technical assistant.

- Visiting the different work areas and meeting with staff; learning about the functions of each person so as to be able to establish effective communication with customers and staff.

- Learning about the pharmacy's policies and specific instructions (e.g. work schedules, opening hours, dress code, meal times, behaviour with customers); taking notes.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 1 (cont.):

- Learning about the layout of the pharmacy and the arrangement of materials on the counter; learning about the area reserved for materials required to perform tasks and the type of system used to store drugs and file documents; taking notes.

- Observing, in the various sections of the pharmacy other than the prescription counter, the layout of pharmaceutical products in order to be able to effectively direct customers to what they are looking for.

- Observing the pharmacy technical assistant's methods of organizing and performing various tasks, his or her way of using equipment, techniques for approaching customers and his or her way of obtaining information and directing customers to the appropriate persons or aisles; taking notes.

PHASE 2: **Participation in Occupational Tasks under the Direct and Indirect Supervision of the Pharmacy Technical Assistant**

- Operating the cash register on at least five occasions and using the printer for credit and debit card purchases.

- Participating daily in tasks related to the preparation of drugs.

- Greeting customers, obtaining any necessary information; if applicable, directing them to the appropriate services or to the persons likely to be able to serve them.

- Making and answering telephone calls.

- Using the computer daily and recording the information related to patients' records and content of prescriptions in the proper fields; having the accuracy of the information recorded verified and producing the labels and receipts.

- Participating in receiving orders, verifying the merchandise, labelling and storing products and returning expired products or products not ordered.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 2 (cont.):

- With the help of the pharmacy technical assistant, making, on at least two occasions, a list of merchandise to be ordered from a distributor, and placing the order.

- Participating regularly in discussions with the pharmacy technical assistant of the tasks and activities carried out, aspects not understood and ways of improving their performance or their behaviour with customers.

PHASE 3: **Autonomous Performance of Occupational Tasks**

- Greeting customers and, if applicable, directing them to the service requested or to the person most likely to be able to help them.

- Performing the tasks related to the filling of at least ten prescriptions per day for five days.

- Answering telephone calls daily, responding to them or transferring them, if applicable, to the pharmacist.

- Making, on at least two occasions, a magistral preparation and recording the information in the patient's record.

- At busy times, responding to the requests of customers and performing a series of tasks, while establishing priorities.

- Writing daily in their journal, describing their activities, important events, their progress and difficulties encountered; keeping their notes for discussion with the teacher.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 4: **Evaluation of the Quality of Their Work**

- Analyzing, on at least three occasions, their participation in the practicum with regard to the following aspects: professional behaviour, quality of communication with customers and staff, ability to perform tasks, attendance, ability to accept comments and criticisms, ability to adapt to different work methods and new situations, ability to use acquired knowledge and skills, and observance of rules of hygiene and safety, established policies and instructions; noting the results of these analyses on their follow-up charts.

- Meeting, on at least three occasions, with the teacher in order to convey the content of their journal and the results of their self-evaluation for each of the aspects mentioned above.

- Meeting, on at least two occasions during the practicum, with the supervising pharmacist in order to discuss the work done and to verify his or her degree of satisfaction with respect to their attainment of the objective.

- Meeting with the teacher at the end of the practicum to discuss the quality of their participation in the practicum.

INSTRUCTIONAL GUIDELINES

The teacher should:

- Prepare a follow-up chart before the practicum including all aspects on which the students must evaluate themselves during the practicum; provide each student with a copy of the chart.
- Obtain the cooperation of each of the persons involved in the supervision of the practicum and clarify the procedure of the practicum as well as the responsibilities of each, specifically with respect to evaluation.
- Plan follow-up meetings and inform the students of the times fixed for these meetings.
- Ensure that the schedule made by the supervising pharmacist takes into account the objectives of the practicum and the activities of the pharmacy.
- Ensure that the supervising personnel provide the appropriate support while allowing the students to exercise their autonomy.
- In meetings with students and supervising pharmacists, ensure that the objectives of the practicum are being met.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

INSTRUCTIONAL GUIDELINES

- Ensure follow-up of the practicum by gathering the students' comments and observations, as well as those of the supervising pharmacist and pharmacy technical assistant.
- In meetings, encourage students experiencing difficulties.
- Ensure that the students write regularly in their journal and complete the follow-up chart as requested.
- Encourage the students to think about their aptitudes for and interest in working in a community pharmacy.

PARTICIPATION CRITERIA

PHASE 1:

- Write in their journal the information gathered and their observations with respect to the various points to be dealt with.
- Behave with discretion and tact in their observation of the pharmacy technical assistant's work.

PHASE 2:

- Follow instructions related to the performance of activities.
- Show availability and resourcefulness.
- Show diligence in observing pharmacy policies.
- Show diligence in observing the rules of hygiene, safety and professional ethics.
- Make an effort to do good work.
- Show flexibility toward changes and unforeseen events.
- Apply communication techniques.
- Adopt a positive attitude and an open mind in discussions.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

PARTICIPATION CRITERIA

PHASE 3:

- Show diligence in performing the assigned tasks.
- Show diligence in observing the rules of hygiene, safety and professional ethics.
- Show diligence in observing pharmacy policies at all times.
- Show judgment in setting priorities at busy times.
- Show a sense of organization and progress in the performance of tasks.
- Show concentration in the key steps of their work (e.g. calculation of drugs, inputting of information).
- Write daily in their journal the relevant points for their meeting with the teacher.

PHASE 4:

- Rate themselves on each aspect mentioned.
- Participate seriously and positively in the scheduled meetings.
- Discuss seriously the results of their self-evaluation.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking any of the activities:

1. Become aware of the objective of the practicum and the general procedures.
2. Compare the organization and operation of each type of community pharmacy.
3. Review the rules of professional ethics and the importance of always applying them in order to maintain the professional image of the pharmacy.
4. Review the principles and techniques of communication to be applied in their relationships with other staff members and customers.
5. Review the concepts related to the legal aspects of pharmacy work.
6. Describe ways of observing people without hindering them in their activities.
7. Become aware of the particular characteristics of the various software programs used in community pharmacies.
8. Become aware of difficult situations likely to arise in community pharmacies and ways of reacting to them.

MODULE 19: PRACTICUM IN A HOSPITAL

CODE: 754 487

Duration: 105 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to
perform occupational tasks in a hospital.

SPECIFICATIONS

During this module, the students will:

- Become familiar with the physical and functional organization of the pharmacy department.
- Perform occupational tasks characteristic of this type of establishment, under supervision and alone.
- Evaluate their participation in the practicum.

LEARNING CONTEXT

PHASE 1: **Familiarization with the Practicum Setting**

- Establishing contact with the supervising pharmacist and introducing themselves; with the pharmacist, visiting the various areas of the pharmacy department and meeting the persons designated to supervise them.

- Learning about the hospital's policies, the services offered (e.g. cafeteria, parking, locker room), and specific instructions (e.g. work schedules, meal times, breaks).

- Observing the physical layout of the pharmacy department and its various areas, and the materials necessary to perform tasks: devices, equipment, accessories, products.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 1 (cont.):

- Observing in each area the following aspects: staff, tasks performed, work method used, type of filing and storage systems used for drugs and documents, means of integrating tasks, final result obtained; asking questions on any new aspect observed (e.g. equipment, technique) related to the tasks of the occupation.

- Observing the pharmacy technical assistant perform tasks related to the preparation of sterile drugs, including cytotoxic drugs and, if applicable, to the packaging of drugs in single-use packets as well as bulk compounding; paying attention to the following aspects: asepsis and safety precautions taken, way of preparing material, technical procedure used, verification by the pharmacist.

PHASE 2: **Participation in Occupational Tasks under Direct and Indirect Supervision**

- Learning from the supervising pharmacist about the work schedule for the next few days with respect to tasks to be performed.

- Participating with the designated staff member in the following tasks: restocking the ward-issue reserves and the emergency and night cabinets; sorting the drugs returned from the patient care units or other services.

- Participating, on at least five occasions, in the performance of tasks related to the stocking of narcotics and controlled drugs in the patient care units or other services.

- Participating daily in tasks related to the filling of prescriptions received from within the hospital or from outside.

- Making magistral preparations and participating in the preparation of intravenous solutions, excluding cytotoxic drugs, under direct and indirect supervision.

- Participating in daily discussions with the designated staff member of the tasks and activities carried out, new aspects of the job, points to be clarified and ways of overcoming difficulties or improving their performance at work.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 2 (cont.):

- Writing daily in their journal, describing their activities, important events and, if applicable, difficulties encountered and solutions found or envisioned to solve them; keeping their notes for discussion with the teacher.

PHASE 3: **Autonomous Performance of Occupational Tasks**

- Restocking the reserves (e.g. ward-issue, emergency and night cabinets) using requisitions or established lists.

- Performing tasks related to the filling of at least 50 current prescriptions per day for five days and filing prescriptions, requisitions and other documents.

- Answering telephone calls and out-patients daily, answering questions if it is their responsibility or referring requests to the pharmacist.

- Making magistral preparations and various sterile solutions, excluding cytotoxic drugs.

- Responding to unexpected or emergency requests.

- Writing daily in their journal, describing tasks performed, important events and, if applicable, the difficulties encountered; keeping their notes for discussion with the teacher.

PHASE 4: **Evaluation of the Quality of Their Work**

- Analyzing, on at least three occasions, their participation in the practicum with regard to the following aspects: professional behaviour, quality of communication with the work team, ability to perform tasks effectively and quickly, ability to integrate and work in a team, observance of rules of hygiene, asepsis and safety and established policies and instructions, ability to adapt to new situations.

- Meeting, on at least three occasions, with the teacher in order to convey the content of their journal and the results of their self-evaluation for each of the aspects mentioned above.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 4 (cont.):

- Meeting, on at least two occasions during the practicum, with the supervising pharmacist in order to discuss the work done and to verify his or her degree of satisfaction with respect to their attainment of the objective.

- Meeting with the teacher at the end of the practicum to discuss the quality of their participation in the practicum.

- Participating in a class discussion of their experiences in the practicum.

INSTRUCTIONAL GUIDELINES

The teacher should:

- Prepare a follow-up chart before the practicum including all aspects on which the students must evaluate themselves during the practicum; provide each student with a copy of the chart.
- Obtain the cooperation of each of the persons involved in the supervision of the practicum and clarify the procedure of the practicum as well as the responsibilities of each, more specifically with respect to evaluation.
- Plan follow-up meetings and inform the students of the times fixed for these meetings.
- Ensure that the supervising personnel provide the appropriate support while allowing the students to exercise their autonomy.
- Ensure that the schedule made by the supervising pharmacist takes into account the objectives of the practicum and the activities of the pharmacy department.
- Ensure follow-up of the practicum by gathering the students' comments and observations, as well as those of the supervising pharmacist and pharmacy technical assistant.
- In meetings, encourage students experiencing difficulties.
- In meetings with students and supervising pharmacists, ensure that the objectives of the practicum are being met.
- Ensure that students write regularly in their journal and complete the follow-up chart.
- Encourage students during the class discussion to think about their aptitudes for and interest in working in a pharmacy in a general and specialized hospital.

FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE

PARTICIPATION CRITERIA

PHASE 1:

- Write the information gathered and their observations in their journal.
- Show tact and delicacy in their observation of the pharmacy technical assistant's work.

PHASE 2:

- Follow instructions related to the performance of activities.
- Show diligence in observing the rules of hygiene, asepsis and safety.
- Show diligence in observing established protocols and technical procedures.
- Show a positive attitude and an open mind in discussions.
- Write their daily journal as requested.

PHASE 3:

- Make an effort to do good work at a good pace, considering their position as student trainees.
- Show autonomy in performing their tasks.
- Show diligence in observing the rules of hygiene, asepsis, safety and professional ethics.
- Show team spirit in their work.
- Write their daily journal as requested.
- Make an effort to adapt quickly to new or urgent situations.

PHASE 4:

- Note the results of their analyses on their follow-up chart.
- Participate seriously in the scheduled meetings.
- Adopt a positive attitude toward comments.
- Participate actively and seriously in the class discussion of their experiences during the practicum.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking any of the activities:

1. Become aware of the objective of the practicum and the general procedures.
2. Distinguish between a general and specialized hospital, and an extended care facility with respect to the services offered, the type of patients served, and so on.
3. Distinguish between the organizational and functional procedures of the pharmacy department in a general and specialized hospital, and those of the pharmacy department in an extended care facility.
4. Describe the function of an intravenous additive service and a satellite pharmacy.
5. Review the rules of hygiene and asepsis applicable to the handling of sterile materials.
6. Review the rules of professional ethics and the relevant legal concepts.
7. Review the principles and techniques of communication to be applied in their relationships with other staff members.
8. Review the concepts related to parenteral drugs and sterile preparations.
9. Review the specific characteristics of the control of narcotics and controlled drugs in health care establishments.
10. Review aspects of policies established for filling prescriptions in health care establishment pharmacies.

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