

Pharmacy Technician Program Standard

The approved program standard for Pharmacy Technician programs of instruction leading to an Ontario College Diploma delivered by Ontario Colleges of Applied Arts and Technology. (MTCU funding code 51623)

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Introduction

This document is the Program Standard for the Pharmacy Technician programs of instruction leading to an Ontario College Diploma delivered by Ontario Colleges of Applied Arts and Technology (MTCU funding code 51623).

Development of system-wide program standards

In 1993, the Government of Ontario initiated program standards development with the objectives of bringing a greater degree of consistency to college programming offered across the province, broadening the focus of college programs to ensure graduates have the skills to be flexible and to continue to learn and adapt, and providing public accountability for the quality and relevance of college programs.

The Program Standards Unit of the Ministry of Colleges and Universities has responsibility for the development, review and approval of system-wide standards for programs of instruction at Ontario Colleges of Applied Arts and Technology.

Program standards

Program standards apply to all similar programs of instruction offered by Colleges of Applied Arts and Technology across the province of Ontario. Each program standard for a postsecondary program includes the following elements:

- <u>Vocational standard</u> (the vocationally specific learning outcomes which apply to the program of instruction in question),
- Essential employability skills (the essential employability skills learning outcomes which apply to all programs of instruction); and
- General education requirement (the requirement for general education in postsecondary programs of instruction).

Collectively, these elements outline the essential skills and knowledge that a student must reliably demonstrate in order to graduate from the program.

Individual Colleges of Applied Arts and Technology offering the program of instruction determine the specific program structure, delivery methods and other curriculum matters to be used in assisting students to achieve the outcomes articulated in the standard. Individual colleges also determine whether additional local learning outcomes will be required to reflect specific local needs and/or interests.

The expression of program standards as vocational learning outcomes

Vocational learning outcomes represent culminating demonstrations of learning and achievement. They are not simply a listing of discrete skills, nor broad statements of knowledge and comprehension. In addition, vocational learning outcomes are interrelated and cannot be viewed in isolation from one another. As such, they should be viewed as a comprehensive whole. They describe performances that demonstrate that significant integrated learning by graduates of the program has been achieved and verified.

Expressing standards as vocational learning outcomes ensures consistency in the outcomes for program graduates, while leaving to the discretion of individual colleges, curriculum matters such as the specific program structure and delivery methods.

The presentation of the vocational learning outcomes

The **vocational learning outcome** statements set out the culminating demonstration of learning and achievement that the student must reliably demonstrate before graduation.

The **elements of the performance** for each outcome define and clarify the level and quality of performance necessary to meet the requirements of the vocational learning outcome. However, it is the performance of the vocational learning outcome itself on which students are evaluated. The elements of performance are indicators of the means by which the student may proceed to satisfactory performance of the vocational learning outcome. The elements of performance do not stand alone but rather in reference to the vocational learning outcome of which they form a part.

The development of a program standard

In establishing the standards development initiative, the Government of Ontario determined that all postsecondary programs of instruction should include vocational skills coupled with a broader set of essential skills. This combination is considered critical to ensuring that college graduates have the skills required to be successful both upon graduation from the college program and throughout their working and personal lives.

A program standard is developed through a broad consultation process involving a range of stakeholders with a direct interest in the program area, including employers, professional associations, universities, secondary schools and program graduates working in the field, in addition to students, faculty and administrators at the colleges themselves. It represents a consensus of participating stakeholders on the essential learning that all program graduates should have achieved.

Updating the program standard

The Ministry of Colleges and Universities will undertake regular reviews of the vocational learning outcomes for this program to ensure that the Pharmacy Technician Program Standard remains appropriate and relevant to the needs of students and employers across the Province of Ontario. To confirm that this document is the most upto-date release, please contact the Ministry of Colleges and Universities.

Vocational standard

All graduates of Pharmacy Technician programs have achieved the <u>seven vocational</u> <u>learning outcomes (VLOs)</u>, in addition to achieving the essential employability outcomes and meeting the general education (GE) requirement.

Preamble

At all times, learners in the Pharmacy Technician program will act in compliance with the pertinent **legislation** and established standards, policies and procedures in their roles and responsibilities within the scope of practice of the **pharmacy technician**. Graduates of the Pharmacy Technician program will have attained a solid basis in the theory, principles and practices needed to enter this **patient**-centred health care profession. They will apply critical thinking skills to process **prescriptions** accurately and safely, control inventory according to established policies and procedures, use paper and electronic processes to generate and maintain accurate and confidential records and third-party payer documents. They will assist in the provision of optimal **medication therapy management** and cost-effective pharmacy services.

Being able to effectively communicate verbally, electronically and in writing is a key requirement of graduates. Graduates will contribute to the operation of a pharmacy by performing work that requires high levels of accuracy and responsibility, including obtaining the best possible medication histories, the legal and technical management of receiving **prescriptions**; transferring or copying **prescriptions**; product **preparation**; the **independent double check**; and the release and distribution of pharmaceutical **products** pursuant to a **prescription** drug order. As members of an interprofessional health care team, graduates will work with **pharmacists**, **pharmacy technicians**, pharmacy assistants and other **health care providers** to optimize the health and well-being of **patients**. Graduates will also use **pharmacy informatics** to enter **patient** and **prescription** information; access information, such as drug interchangeability; and respond to computer warnings pertaining to drug interactions, adverse effects, and allergies by informing the **pharmacist** as required.

Graduates are awarded an Ontario College Diploma following the successful completion of the Pharmacy Technician program. Graduates of Pharmacy Technician programs accredited by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP) are eligible for the Pharmacy Technician Qualifying Examinations for entry-to-practice of the Pharmacy Examining Board of Canada (PEBC). The PEBC Qualifying Examinations consist of a written Multiple-Choice Question (MCQ) examination and a performance-based examination, called an Objective Structured Performance Examination (OSPE). After successful completion of the PEBC Qualifying Examinations, applicants must successfully complete the Ontario College of Pharmacists (OCP) Jurisprudence, Ethics and Professionalism Examination and an OCP structured practical training program/practice-based assessment before they can proceed with their application for registration with OCP.

Registration is necessary to qualify for employment as a **pharmacy technician** in the Province of Ontario.

In the Province of Ontario, **pharmacy technicians** have employment opportunities in **practice settings**, such as hospital pharmacies, community pharmacies and long-term care facilities. In addition, they may find employment opportunities within other organizations and agencies that require the knowledge and expertise of a **pharmacy technician**, such as pharmaceutical companies and insurance companies.

See Glossary

Note: The <u>Ontario Council on Articulation and Transfer</u> (ONCAT) maintains the provincial postsecondary credit transfer portal, <u>ONTransfer</u>.

Synopsis of the vocational learning outcomes Pharmacy Technician (Ontario College Diploma)

The graduate has reliably demonstrated the ability to:

- Process prescriptions with accuracy and completeness within the pharmacy technician's scope of practice, in accordance with current and relevant legislation, code of ethics, established standards, policies, and procedures in practice settings.
- 2. Prepare pharmaceutical products and documentation for **dispensing** and releasing pharmaceutical products within the **pharmacy technician's** scope of practice, in accordance with current and relevant **legislation**, code of ethics, established standards, policies, and procedures in **practice settings**.
- 3. Collaborate with the **pharmacist** and other **health care providers** to optimize the **patient's** health and well-being.
- 4. Promote quality assurance in **practice settings** by performing effective and efficient pharmacy operating procedures.
- 5. Optimize **medication therapy management** and product distribution using current technologies in **practice settings**.
- 6. Develop, implement, and maintain effective strategies for ongoing personal and professional development that support competence and currency.
- 7. Communicate using correct terminology with patients, the pharmacy team, other health professionals and stakeholders for patient safety.

See Glossary

Note: The learning outcomes have been numbered as a point of reference; numbering does not imply prioritization, sequencing, nor weighting of significance.

The vocational learning outcomes

1. The graduate has reliably demonstrated the ability to: process **prescriptions** with accuracy and completeness within the **pharmacy technician's** scope of practice, in accordance with current and relevant **legislation**, code of ethics, established standards, policies, and procedures in **practice settings**.

Elements of the performance

- a. Receive a new or repeat prescription from patients, patients' agents, prescribers, or health care providers acting on the prescribers' behalf, in compliance with regulations, policies and procedures in practice settings.
- b. Verify the authenticity, accuracy, and completeness of **prescriptions** by ascertaining that each **prescription** meets all legal requirements, using all necessary means of communication in securing authenticity, and consulting with the **pharmacist** where indicated by standards of practice.
- c. Verify and update a prescriber's information by utilizing current provincial databases.
- d. Collect, record, and update the **patient's** profile, including but not limited to demographic information, medical history, **pharmaceutical product** usage and history, allergies, and third-party drug plan information.
- e. Identify changes in the **patient's** profile, health record, medical condition, drug or disease interactions, allergic reactions, warnings and/or **prescription** (for example, changes in drug, dosage form, dosage, dose, quantity and/or directions) through discussions with the patient and notify the **pharmacist** as required.
- f. Assess and prioritize **prescriptions** ensuring the accuracy and completeness of documentation in compliance with current and relevant **legislation** and established standards, policies, and procedures in **practice settings**.
- g. Transcribe a **prescription** ensuring the accuracy and completeness of documentation in compliance with current and relevant **legislation** and established policies and procedures in **practice settings**.
- h. Identify the prescribing eligibility and limitations of the various **regulated health care professionals** by referring to current and relevant **legislation**.
- i. Advise **patients** about third-party insurance plans, limits, and payment requirements for both **prescription** and non-**prescription** products.
- j. Provide accurate information to answer **patients'** questions and concerns within the scope of practice of a **pharmacy technician**, using appropriate and professional communication techniques.
- k. Direct questions by **patients**, **patients**' **agents** and **health care providers** that are outside the scope of practice of **pharmacy technician** to the **pharmacist**.

- I. Transcribe pharmaceutical, medical, laboratory, metric, and apothecary terms, abbreviations, and symbols when processing **prescriptions**.
- m. Interpret **prescriptions** including identification of drug/natural health product, dose/strength, dosage form/route, quantity/duration of therapy, and frequency/directions for use.
- n. Identify drug distribution patterns that may be indicative of drug misuse or diversion and notify the **pharmacist** and/or designated pharmacy manager in compliance with current and relevant **legislation** and established policies and procedures in **practice settings**.
- Process prescriptions, including prescription, non-prescription, restricted access and natural health products incompliance with current and relevant legislation and requirements of drug schedule.
- p. Identify therapeutic classification of drugs, appropriate directions for use, potential adverse effects, drug or disease interactions, dosage forms, strengths, and routes for administration.
- q. Prepare and complete accurate billing to the **patient** and/or department or third party as required.
- r. Verify sufficient inventory of the medication to be released prior to processing the **prescription** and identify and access alternate sources when necessary.

2. The graduate has reliably demonstrated the ability to: prepare pharmaceutical products and documentation for **dispensing** and releasing pharmaceutical products within the **pharmacy technician's** scope of practice, in accordance with current and relevant **legislation**, code of ethics, established standards, policies, and procedures in **practice settings**.

Elements of the performance

- a. Perform dispensing functions for prescription, non-prescription and restricted access drugs as well as natural health products in compliance with drug schedules and categories.
- Use established pharmaceutical systems of measurement to accurately calculate, convert, measure, verify and document the ingredients and quantities of pharmaceutical products.
- c. Select **pharmaceutical product** to be dispensed in accordance with drug interchangeability **legislation**, hospital formulary and substitution policies, and third-party drug plan coverage.
- d. Receive, store, and process narcotic and controlled drugs/**preparations** in compliance with current and relevant **legislation** and established standards, policies, and procedures in **practice settings**.
- e. Develop and apply strategies that minimize or prevent the human and environmental factors that contribute to medication incidents and discrepancies.
- f. Protect the patient's rights to privacy and confidentiality, including but not limited to the safe and secure collection, use, disclosure, storage and disposal of all personal health information, records, and files.
- g. Maintain confidentiality of all workplace and corporate data and ensure safe and secure disposal in compliance with established policies and procedures in **practice** settings.
- h. Use appropriate personal protective equipment in compliance with current and relevant health and safety standards, and established policies, and procedures in **practice settings**.
- i. Perform accurate calculations for the purpose of retrieving, counting, pouring, weighing, or measuring **pharmaceutical products**.
- j. Prepare sterile and non-sterile **products** by applying safe and accurate techniques in compliance with established policies and procedures in **practice settings** as well as current and relevant legislative requirements.

- k. Evaluate the accuracy and quality of the pharmaceutical product against the prescription and formula in collaboration with the pharmacist or designated personnel (for example, pharmacy technician).
- I. Use appropriate cleaning, and infection control procedures when preparing **pharmaceutical** and natural health **products**.
- m. Dispose of unusable **pharmaceutical products** in compliance with current and relevant **legislation** and established policies and procedures in **practice settings**.
- n. Perform an **independent double check** within the scope of practice of the **pharmacy technician**.
- Confirm the patients or patients' agents receive an offer to be counselled by the pharmacist and advise the pharmacist if further consultation is necessary before releasing a pharmaceutical product.
- p. Determine the need for and present relevant information to **patients** or **patients**' **agents** (for example, using visuals or demonstrations as required) related to their **prescription** or **pharmaceutical product**.
- q. Protect the integrity of **pharmaceutical products** by packaging them in compliance with **product** characteristic requirements and current and relevant regulations, and established policies, and procedures in **practice settings**.
- r. Document, file, store and maintain all **pharmaceutical product** distribution activities in compliance with current and relevant regulations.
- s. Maintain pharmacy records as required by current and relevant **legislation** and established standards to ensure safe and quality care (for example, inventory, medication incidents/near misses, etc.).
- t. Ensure all pharmacy records are accurate, legible, complete, easily accessible and maintained for the appropriate length of time.
- u. Ensure accurate entry and verification of third-party insurance plans in accordance with current and relevant provincial and private guidelines.

3. The graduate has reliably demonstrated the ability to: collaborate with the **pharmacist** and other **health care providers** to optimize the **patient's** health and well-being.

Elements of the performance

- a. Assist in the **patient's** health and well-being by using promotion and prevention strategies within the scope of practice of the pharmacy technician.
- b. Refer the therapeutic questions and issues of **patients**, **patients' agents** and **health care providers** to the **pharmacist** for intervention.
- c. Prepare and administer substances by injection safely in compliance with current and relevant **legislation**, and established standards, policies, and procedures in **practice settings**.
- d. Collaborate with **health care providers** in the **circle of care** to support optimal health outcomes for **patients**.
- e. Act as a resource to protect the interests of **patients** in compliance with current and relevant **legislation** and established standards, policies, and procedures in **practice settings**.
- f. Confirm with the **pharmacist** point-of-care tests (POCT) may be performed.
- g. Demonstrate to **patients** and/or **patients' agents** the proper use of point-of-care monitoring devices, drug delivery systems and medical devices, supplies, and equipment (for example, blood glucose meters, spirometers, blood pressure monitors and insulin pens).
- h. Document the results of relevant laboratory, point-of-care and diagnostic tests and other clinical assessments in the **patient** record to inform the **pharmacist's** assessment.
- i. Collaborate with **pharmacist** and other health care professionals to support **patient**-specific health promotion activities.

 The graduate has reliably demonstrated the ability to: promote quality assurance in practice settings by performing effective and efficient pharmacy operating procedures.

Elements of the performance

- a. Manage inventory safely, efficiently, and accurately by applying best practices in compliance with current and relevant **legislation** as well as established standards, policies, and procedures in **practice settings**.
- b. Store, transmit and/or dispose of expired **pharmaceutical products** safely, securely, and efficiently in compliance with current and relevant **legislation** and established standards, policies, and procedures in **practice settings**.
- c. Handle and dispose of **hazardous** and **biohazardous substances**, **materials**, **and wastes**, in compliance with current and relevant **legislation**, health and safety standards, the Workplace hazardous Materials Information System (WHMIS) and established standards, policies and procedures in **practice settings**.
- d. Participate in the effective and efficient **pharmaceutical product** distribution systems in **practice settings**.
- e. Collaborate with **pharmacists**, pharmaceutical manufacturers, suppliers, wholesalers and/or other pharmacies to maintain effective and efficient procurement operations in compliance with established policies and procedures in **practice settings**.
- f. Protect the integrity of the drug supply chain by safeguarding against counterfeit **products** or sourcing from unknown wholesalers or sellers.
- g. Apply fundamental merchandising techniques in compliance with established policies and procedures in **practice settings**.
- h. Apply pricing strategies in compliance with established policies and procedures in **practice settings**.
- i. Perform routine equipment maintenance in compliance with manufacturers' specifications.
- j. Complete all documentation pertaining to inventory management, including narcotics, controlled drug, targeted controlled substances, investigational drugs, special access and hazardous drugs in compliance with current and relevant legislation and established standards, policies, and procedures in practice settings.
- k. Ensure a clean, safe, and orderly working environment in compliance with current and relevant **legislation** and established standards, policies, and procedures in **practice settings**.

- I. Perform all pharmacy-related functions in ways that ensure personal, **patient** coworker safety in **practice settings**.
- m. Assess the quality, safety, and integrity of **products** including sterile and non-sterile in compliance with current and relevant **legislation**, and established standards, policies, and procedures in **practice settings**.

5. The graduate has reliably demonstrated the ability to: optimize **medication therapy management** and product distribution using current technologies in **practice settings.**

Elements of the performance

- a. Utilize current **pharmacy informatics** to enter, update, access, retrieve and store entries and records.
- b. Utilize online systems to generate, maintain and update **patient** profiles and third-party drug plan information, and other reports.
- c. Utilize online and manual systems to transmit, coordinate and reconcile third party billing and payments.
- d. Utilize approved medication management software to perform drug interaction and allergy checks and respond appropriately to warnings in compliance with current and relevant **legislation** and established standards, policies, and procedures in **practice settings**.
- e. Utilize and maintain technological tools (for example, drug distribution, compounding, and prepackaging devices and equipment) in an effective and efficient manner in compliance with current and relevant **legislation** and established standards, policies, and procedures in **practice settings**.
- f. Utilize appropriate diagnostic and monitoring tools to troubleshoot minor mechanical breakdowns of commonly used equipment/technology.

6. The graduate has reliably demonstrated the ability to: develop, implement, and maintain effective strategies for ongoing personal and professional development that support competence and currency.

Elements of the performance

- a. Use constructive feedback from peers, co-workers, and supervisors to continuously improve **pharmacy technician** practice and skills.
- b. Identify areas for further development of knowledge, skills, and abilities and develop an education action plan to meet those needs.
- c. Support opportunities to assist and mentor peers and co-workers.
- d. Use relevant and evidence-based resources to maintain currency in knowledge, skills, and abilities.
- e. Actively engage with professional associations and organizations.

7. The graduate has reliably demonstrated the ability to: communicate using correct terminology with **patients**, the pharmacy team, other health professionals and stakeholders for patient safety.

Elements of the performance

- a. Produce information in a way that the intended recipient understands (for example, using visual, demonstrations, translation, simplified language).
- b. Apply appropriate techniques to document care, actions, and decisions in the **patient** record.
- c. Document all information and maintain records, and files according to current and relevant **legislation**, pharmacy standards and **practice setting** policies.
- d. Show sensitivity, respect, empathy and inclusion in all communications and interactions.
- e. Determine professional role within the pharmacy team and interprofessional role within the **Circle of Care** by considering the roles, responsibilities, and the scope of practice of others.
- f. Demonstrate professionalism in all interactions including handling conflict respectfully and collaboratively.
- g. Adhere to communication policies, procedures and/or protocols in **practice settings** when interacting with **patients**, **patients**' **agents**, **pharmacists**, **pharmacy technicians**, pharmacy assistants and other **health care providers**.

Glossary

Biohazardous substances, materials and wastes - Are potentially infectious and present harmful effect on human health or the environment. Examples include blood and body fluids.

Circle of Care – Health care team members who have direct responsibilities for providing health care or assisting in providing health care to the patient. The circle of care includes but is not limited to the team of health care professionals (that is, those covered by the *Regulated Health Professions Act, 1991*, Schedule 1) and unregulated health care providers. The circle of care may also include patients' agents and family members who have the consent of the patient or patient's agents to disclose the patient's personal health information. By way of e-Health, the circle of care may also include private and public health care professionals from across the province or nation.

Dispensing – Selection, preparation and transfer of one or more doses of a drug to a patient or his or her representative for administration. Under the Regulated Health Professions Act. 1991, dispensing is defined as a controlled act, meaning that only authorized health professionals may perform this activity. Under the *Pharmacy Act*, 1991, pharmacy technicians are authorized to dispense under the terms, conditions and limitations of their certificate of registration. In line with the, National Association of Pharmacy Regulatory Authorities (NAPRA) Model Standards of Practice for Pharmacists and Pharmacy Technicians in Canada (2022) authorized personnel who are adequately trained and qualified (for example, pharmacy technicians) can perform the technical aspects of the dispensing process within their scope of practice. This includes receiving and interpreting the prescription, entering the order, selecting the drug, or determining the product to dispense, reconstituting a product (if needed), labelling, packaging and/or re- packaging pharmaceutical products for release. Release of pharmaceutical products is allowed once a pharmacist or pharmacy technician endorses the accuracy of the dispensed pharmaceutical product by applying his or her written or electronic signature. The pharmacist is accountable for verifying the therapeutics of the prescription and for discussing prescribed pharmaceutical products with patients or patients' agents.

Hazardous substances, materials and wastes - Have potential for harmful effect on human health or the environment. Examples include drugs in <u>NIOSH List of Hazardous Drugs in Healthcare Settings</u>.

Health Care Providers – Regulated health care professionals and unregulated health care providers who have direct responsibilities for providing health care or assisting in providing health care to the patient.

Independent Double Check – An independent double check is a process in which a second practitioner conducts a verification. Such verification can be performed in the presence or absence of the first practitioner. In either case, the most critical aspect is to

maximize the independence of the double check by ensuring that the first practitioner does not communicate what he or she expects the second practitioner to see, which would create bias and reduce the visibility of an error (https://www.ismp-canada.org/definitions.htm).

Legislation – All relevant statutes (acts) and regulations including but not limited to the:

- Controlled Drugs and Substances Act, 1996
- Drug and Pharmacies Regulation Act, 1990
- Drug Interchangeability and Dispensing Fee Act, 1990
- Food and Drugs Act. 1985
- Occupational Health and Safety Act, 1990
- Ontario Drug Benefit Act. 1990
- Personal Health Information Protection Act, 2004
- Personal Information Protection and Electronic Documents Act, 2000
- Pharmacy Act, 1991
- Public Hospitals Act, 1990
- Regulated Health Professions Act, 1991
- Workplace Hazardous Materials Information System

Medication Therapy Management – Also known as pharmaceutical care, it is the responsible provision of drug therapy for the purpose of maintaining or improving the patient's quality of life. Within their scope of practice, pharmacy technicians assist the pharmacist and other health care providers in the promotion of optimal health outcomes for the patient by performing patient-focused activities to identify, prevent, and resolve drug-related problems.

Patient – In this document, the term "patient" refers to patient, client, resident or customer.

Patient's Agent – A person designated to act on behalf of the patient, such as a member of the patient's immediate family, an individual who has a close personal relationship with the patient, an individual who personally provides care to the patient or someone who is legally entrusted to handle the patient's affairs (for example, a substitute decision maker).

Pharmacist – A health care provider who is registered with the Ontario College of Pharmacists under the *Pharmacy Act, 1991*. The practice of pharmacy is the promotion of health, prevention and treatment of diseases, dysfunction and disorders through medication and non-medication therapy; the monitoring and management of medication therapy; the custody, compounding and the dispensing of drugs; the provision of health care aids and devices and information related to their use.

Pharmacy Informatics – Computerized pharmacy and patient information and communication systems and networks used to acquire, compile, store, retrieve, analyze, evaluate and disseminate the necessary patient care and health information as

permitted by legislation. This information includes, but is not limited to, electronic health records, clinical information (for example, drug, prescription and medication use, and drug interactions), patient accounts and medical insurance records. Pharmacy informatics enable the pharmacist and other authorized individuals (as defined under the <u>Regulated Health Professions Act, 1991</u> and the <u>Drug and Pharmacies Regulation Act, 1990</u>) to engage in e-prescribing and medication therapy management. Pharmacy informatics can also be used for the purpose of maintaining the administrative and financial aspects of the pharmacy, as well as continuous pharmacy education and public awareness and education.

Pharmacy Technician – A pharmacy technician is a health care provider registered with the Ontario College of Pharmacists under the <u>Pharmacy Act, 1991</u>, who, in collaboration with a pharmacist, is authorized, within the terms, conditions and limitations on the certificate of registration, to dispense, sell and compound medications, to receive, order and manage inventory, to interact with patients and health care providers, and to assist the pharmacist in the provision of medication therapy management and pharmacy services.

Practice Setting – The environment in which pharmaceutical products are processed, dispensed and released, and where learners in the accredited Pharmacy Technician program gain supervised work experience, including community pharmacies and pharmacies in hospital and long-term care facilities.

Prescription – An order from a prescriber (a health care practitioner authorized under the laws of a province or territory of Canada with the scope of practice to prescribe) directing the dispensing of any drug or mixture of drugs for a designated person or animal.

Source: Drug and Pharmacies Regulation Act, R.S.O. 1990, c. H.4 (DPRA)

Preparation - Preparations are compounded by pharmacy professionals or, where authorized by jurisdictions, by non-regulated pharmacy personnel under the supervision of compounding pharmacy professionals. Preparations maybe sterile or non-sterile. Sterile preparations include, for example, intravenous admixtures, total parenteral nutrition, eye preparations, solutions for irrigation and wound care, injectable antineoplastic agents and epidurals. Non-sterile preparations include, for example, creams, ointments, suppositories, and capsules.

Source: NAPRA Model Compounding Competencies for Pharmacists and Pharmacy Technicians In Canada

Product - Products are available commercially from a manufacturer.

Source: NAPRA Model Compounding Competencies for Pharmacists and Pharmacy Technicians in Canada

Regulated Health Care Professionals – Those individuals who are registrants of a regulatory body mandated by the *Regulated Health Professions Act, 1991* (RHPA) Schedule 1, and its companion acts. The RHPA sets the legislative framework for self-regulation and the companion acts contain the scope of practice, professional designation and title, and the controlled acts approved for the profession. Regulated health professionals guide, direct, teach and may, under specific conditions, delegate-controlled acts to unregulated health care providers (unregulated health care providers perform clearly identified services under the direction and/or supervision of a patient, patients' agent, family member, regulated health professional or employer). Moreover, the regulated health professional has the responsibility to provide continuing supervision for unregulated health care providers.

Essential employability skills

All graduates of the Pharmacy Technician program of instruction must have reliably demonstrated the essential employability skills learning outcomes listed below, in addition to achieving the <u>vocational learning outcomes</u> and meeting the <u>general</u> education requirement.

Context

Essential Employability Skills (EES) are skills that, regardless of a student's program or discipline, are critical for success in the workplace, in day-to-day living and for lifelong learning.

The teaching and attainment of these EES for students in, and graduates from, Ontario's Colleges of Applied Arts and Technology are anchored in a set of three fundamental assumptions:

- these skills are important for every adult to function successfully in society today
- our colleges are well equipped and well positioned to prepare graduates with these skills
- these skills are equally valuable for all graduates, regardless of the level of their credential, whether they pursue a career path, or they pursue further education

Skill categories

To capture these skills, the following six categories define the essential areas where graduates must demonstrate skills and knowledge.

- Communication
- Numeracy
- Critical Thinking & Problem Solving
- Information Management
- Interpersonal
- Personal

Application and implementation

In each of the six skill categories, there are a number of defining skills, or sub skills, identified to further articulate the requisite skills identified in the main skill categories. The following chart illustrates the relationship between the skill categories, the defining skills within the categories and learning outcomes to be achieved by graduates from all postsecondary programs of instruction that lead to an Ontario College credential.

EES may be embedded in General Education or vocational courses or developed through discrete courses. However, these skills are developed, all graduates with Ontario College credentials must be able to reliably demonstrate the essential skills required in each of the six categories.

Skill category: communication

Defining skills

Skill areas to be demonstrated by graduates:

- reading
- writing
- speaking
- listening
- presenting
- visual literacy

Learning outcomes

The graduate has reliably demonstrated the ability to:

- 1. communicate clearly, concisely and correctly in the written, spoken and visual form that fulfills the purpose and meets the needs of the audience.
- 2. respond to written, spoken or visual messages in a manner that ensures effective communication.

Skill category: numeracy

Defining skills

Skill areas to be demonstrated by graduates:

- understanding and applying mathematical concepts and reasoning
- analyzing and using numerical data
- conceptualizing

Learning outcomes

The graduate has reliably demonstrated the ability to:

1. execute mathematical operations accurately

Skill category: critical thinking and problem solving

Defining skills

Skill areas to be demonstrated by graduates:

- analyzing
- synthesizing
- evaluating
- decision making
- creative and innovative thinking

Learning outcomes

The graduate has reliably demonstrated the ability to:

- 1. apply a systematic approach to solve problems.
- 2. use a variety of thinking skills to anticipate and solve problems.

Skill category: information management

Defining skills

Skill areas to be demonstrated by graduates:

- Gathering and managing information
- Selecting and using appropriate tools and technology for a task or a project
- Computer literacy
 - Internet skills

Learning outcomes

The graduate has reliably demonstrated the ability to:

- 1. locate, select, organize and document information using appropriate technology and information systems.
- 2. analyze, evaluate and apply relevant information from a variety of sources.

Skill category: interpersonal

Defining skills

Skill areas to be demonstrated by graduates:

- Teamwork
- Relationship management
- Conflict resolution
- Leadership
 - Networking

Learning outcomes

The graduate has reliably demonstrated the ability to:

- 1. show respect for the diverse opinions, values, belief systems and contributions of others.
- 2. interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.

Skill category: personal

Defining skills

Skill areas to be demonstrated by graduates:

- Managing self
- Managing change and being flexible and adaptable
- Engaging in reflective practices
 - Demonstrating personal responsibility

Learning outcomes

The graduate has reliably demonstrated the ability to:

- 1. manage the use of time and other resources to complete projects.
- 2. take responsibility for one's own actions, decisions and their consequences.

General education requirement

All graduates of the Pharmacy Technician program must have met the <u>general</u> <u>education requirement</u> described below, in addition to achieving the <u>vocational</u> and <u>essential employability skills</u> learning outcomes.

Requirement

The <u>General Education Requirement</u> for programs of instruction is stipulated in the <u>Credentials Framework</u> in the Minister's Binding Policy Directive Framework for Programs of Instruction.

In programs of instruction leading to either an Ontario College Diploma or an Ontario College Advanced Diploma, it is required that graduates have been engaged in learning that exposes them to at least one discipline outside their main field of study and increases their awareness of the society and culture in which they live and work. This will typically be accomplished by students taking 3 to 5 courses (or the equivalent) designed discretely and separately from vocational learning opportunities.

This general education learning would normally be delivered using a combination of required and elective processes.

Purpose

The purpose of General Education in the Ontario college system is to contribute to the development of citizens who are conscious of the diversity, complexity and richness of the human experience; who are able to establish meaning through this consciousness; and who, as a result, are able to contribute thoughtfully, creatively and positively to the society in which they live and work.

General Education strengthens students' essential employability skills, such as critical analysis, problem solving and communication, in the context of an exploration of topics with broad-based personal and/or societal importance.

Themes

The themes listed below will be used to provide direction to Ontario Colleges in the development and identification of courses that are designed to fulfil the General Education Requirement for programs of instructions.

Each theme provides a statement of Rationale and offers suggestions related to more specific topic areas that could be explored within each area. These suggestions are neither prescriptive nor exhaustive. They are included to provide guidance regarding the nature and scope of content that would be judged as meeting the intent and overall

goals of General Education.

Arts in society:

Rationale:

The capacity of a person to recognize and evaluate artistic and creative achievements is useful in many aspects of his/her life. Since artistic expression is a fundamentally human activity, which both reflects and anticipates developments in the larger culture, its study will enhance the student's cultural and self-awareness.

Content:

Courses in this area should provide students with an understanding of the importance of visual and creative arts in human affairs, of the artist's and writer's perceptions of the world and the means by which those perceptions are translated into the language of literature and artistic expression. They will also provide an appreciation of the aesthetic values used in examining works of art and possibly, a direct experience in expressing perceptions in an artistic medium.

Civic Life:

Rationale:

In order for individuals to live responsibly and to reach their potential as individuals and as citizens of society, they need to understand the patterns of human relationships that underlie the orderly interactions of a society's various structural units. Informed people will have knowledge of the meaning of civic life in relation to diverse communities at the local, national and global level and an awareness of international issues and the effects of these on Canada, as well as Canada's place in the international community.

Content:

Courses in this area should provide students with an understanding of the meaning of freedoms, rights and participation in community and public life, in addition to a working knowledge of the structure and function of various levels of government (municipal, provincial, national) in a Canadian and/or in an international context. They may also provide an historical understanding of major political issues affecting relations between the various levels of government in Canada and their constituents.

Social and cultural understanding:

Rationale:

Knowledge of the patterns and precedents of the past provide the means for a person to gain an awareness of his or her place in contemporary culture and society. In

addition to this awareness, students will acquire a sense of the main currents of their culture and that of other cultures over an extended period of time in order to link personal history to the broader study of culture.

Content:

Courses in this area are those that deal broadly with major social and cultural themes. These courses may also stress the nature and validity of historical evidence and the variety of historical interpretation of events. Courses will provide the students with a view and understanding of the impact of cultural, social, ethnic or linguistic characteristics

Personal understanding:

Rationale:

Educated people are equipped for life-long understanding and development of themselves as integrated physiological and psychological entities. They are aware of the ideal need to be fully functioning persons: mentally, physically, emotionally, spiritually and vocationally.

Content:

Courses in this area will focus on understanding the individual: his or her evolution; situation; relationship with others; place in the environment and universe; achievements and problems; and his or her meaning and purpose. They will also allow students the opportunity to study institutionalized human social behaviour in a systematic way. Courses fulfilling this requirement may be oriented to the study of the individual within a variety of contexts.

Science and technology:

Rationale:

Matter and energy are universal concepts in science, forming a basis for understanding the interactions that occur in living and non-living systems in our universe. Study in this area provides an understanding of the behaviour of matter that provides a foundation for further scientific study and the creation of broader understanding about natural phenomena.

Similarly, the various applications and developments in the area of technology have an increasing impact on all aspects of human endeavour and have numerous social, economic and philosophical implications. For example, the operation of computers to process data at high speed has invoked an interaction between machines and the

human mind that is unique in human history. This and other technological developments have a powerful impact on how we deal with many of the complex questions in our society.

Content:

Courses in this area should stress scientific inquiry and deal with basic or fundamental questions of science rather than applied ones. They may be formulated from traditional basic courses in such areas of study as biology, chemistry, physics, astronomy, geology or agriculture. As well, courses related to understanding the role and functions of computers (for example, data management and information processing) and assorted computer-related technologies should be offered in a non-applied manner to provide students with an opportunity to explore the impact of these concepts and practices on their lives.

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Inquiries regarding specific Pharmacy Technician programs offered by Colleges of Applied Arts and Technology in Ontario should be directed to the relevant college.

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