Pan-Canadian Entry-to-Practice Competency Profile for

Medical Laboratory Assistant (MLA)

Effective with the February 2027 CSMLS Examination

Revised
February 2024
v3 November 2024

CEXM-042-H2

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CSMLS Code of Professional Conduct©

It is expected that all CSMLS certified Medical Laboratory Professionals follow the CSMLS established Code of Professional Conduct.

- Medical laboratory professionals are dedicated to serving the health care needs of the public. The welfare of the patient and respect for the dignity of the individual shall be paramount at all times.

- Medical laboratory professionals work with other health care professionals to provide effective patient care.

- Medical laboratory professionals shall promote the image and status of their profession by maintaining high standards in their professional practice and through active support of their professional bodies.

- Medical laboratory professionals shall protect the confidentiality of all patient information.

- Medical laboratory professionals shall take responsibility for their professional acts.

- Medical laboratory professionals shall practise within the scope of their professional competence.

- Medical laboratory professionals shall endeavour to maintain and improve their skills and knowledge and keep current with scientific advances. They will uphold academic integrity in all matters of professional certification and continuing education.

- Medical laboratory professionals shall share their knowledge with colleagues and promote learning.

- Medical laboratory professionals shall be aware of the laws and regulations governing medical laboratory science and shall apply them in the practice of their profession.

- Medical laboratory professionals shall practise safe work procedures at all times to ensure the safety of patients and co-workers.

Revised October 2023 © CSMLS

The Medical Laboratory Assistant

Upon successful completion of the CSMLS National Certification Examinations, it is assumed the Medical Laboratory Assistant:

- has developed a knowledge base and practical skills enabling the procurement and preparation of specimens and the use and preparation of equipment/reagents for analysis according to institutional policies and professional standards;

- applies critical thinking and problem-solving strategies to ensure best practices;

- practices and promotes the principles of continuous quality improvement;

- practices to ensure the safety of patients, colleagues, self, and the environment;

- contributes to the health care and education of the public, promotes patient welfare and respects patient diversity, dignity, and confidentiality;

- is an integral member of the health care team who shares knowledge, promotes learning, and collaborates with other professionals in providing effective patient care;

- is responsible and accountable for professional acts and practices according to standards of practice, as well as legislation and regulations governing the profession;

- abides by the CSMLS Code of Professional Conduct;

- abides by the CSMLS Code of Ethics and any other jurisdictional Code of Ethics (provincial regulator and/or employer);

- uses effective interpersonal skills to maintain a professional relationship with colleagues, patients/clients and health care professionals;

- uses all available resources to provide service in a timely, accurate, and cost-effective manner.

The Client/Patient

The client/patient is any individual who interacts with the Medical Laboratory Assistant in their professional capacity, e.g. patient, patient representative, health care professionals, other laboratory professionals.

The Environment

The Medical Laboratory Assistant is prepared to work in a variety of settings including, but not limited to, hospitals, private, and government laboratories, industry, and educational institutions.

The Medical Laboratory Assistant practices in a safe environment that is dynamic and evolving.

The Canadian Society for Medical Laboratory Science (CSMLS) provides competency profiles to standardize minimal competence at an entry-to-practice level and certification processes for four Medical Laboratory designations. In this document, CSMLS provides an updated competency profile for the Medical Laboratory Assistant (MLA).

General Medical Laboratory Technologist (GMLT)	Clinical Genetics Medical Laboratory Technologist (CGMLT)
Medical Laboratory Assistant (MLA)	Diagnostic Cytology Medical Laboratory Technologist (DCMLT)

Consistent with the previous version of the profile, the competency profile is divided into eight (8) categories, as illustrated in Figure 1.

Figure 1. Competency Categories

A Note on the Analytical Phase

The competencies within this domain are listed in the Entry-to-practice Competency Profile for GMLT, CGMLT, and DCMLT. The analytical competencies do not apply to most MLAs outside of point-of-care testing.

There may be extenuating circumstances where MLAs are fulfilling a limited analytical role (e.g., service delivery in rural/remote locations, First Nations communities). Where this is the case, the MLAs will work closely with their supervisor to ensure safe, ethical, and effective care.

MLAs – as delegated – may be asked to perform certain analytical techniques and assess results on a variety of specimens by applying certain principles. These are listed in domain 4.

How to read the Competency Profile

This updated CSMLS Competency Profile© will support educators, medical laboratory professionals, employers, the educational accreditation vendor, and other interested parties in sharing expectations and goals, learning objectives, qualifications, development opportunities and/or training for minimal competence at an entry-to-practice level. The profile also provides succinct descriptions for patients, clients, and the general public.

The Competency Profile is separated into eight (8) **competency categories**, these are further divided into individual competencies and their performance criteria. All categories include knowledge requirements and some have tables describing expected elements of the profession.

Each **competency** is defined using a short action statement describing what a trained professional must be able to perform to be considered minimally competent at an entry-to-practice level. The verb used provides guidance as to the required level of performance. For example, "assess" would be a higher level of performance than "recall".

The **performance criteria** for each competency detail the behaviours required for proficiency and to be assessed. Competence requires all performance criteria to be met.

> As MLAs are not regulated in Canada, their work, in all domains, is supervised by a Medical Laboratory Technologist (MLT) or other authorized health care professional.

This is followed by a list of **knowledge requirements**, which are meant to assist with curriculum development and the assessment of learning.

The **clarification section**, at the end of the document, provides explanations or additional information on the range of context for the performance criteria. Words or phrases that are clarified are shown <u>underlined</u> throughout the document.

CSMLS Medical Laboratory Assistant examination content is based on these ranges.

Competency Categories	Exam Content Range
1. Safe Work Practices	8-12%
2. Equipment, instruments, and reagents	10-15%
3. Pre-analytic Phase	40-50%
4. Analytical Phase	5-10%
5. Post-analytical phase	3-7%
6. Quality and Resource Management	5-10%
7. Communication and Collaboration	5-10%
8. Professional Practice	4-8%

Competency Category 1: Safe Work Practices

The Medical Laboratory Assistant conducts their professional practice according to established protocols, safety guidelines, and existing legislation.

Exam Content: 8-12%

Competencies		Performance Criteria
1.1 Maintain a safe work environment	1.1.1	Use routine practices and additional precautions.
	1.1.2	Apply laboratory hygiene and infection control practices.
	1.1.3	Use laboratory safety devices safely and effectively.
	1.1.4	Handle materials according to standard operating procedures and protocols.
	1.1.5	Practice good ergonomics.
1.2 Minimize dangers from specimens, supplies and equipment	1.2.1	Use and dispose of sharps safely.
	1.2.2	Handle biological and other hazardous materials according to legislation.
	1.2.3	Disinfect and sterilize items using the proper method.
	1.2.4	Minimize potential hazards associated with disinfection and sterilization methods, use of electrical equipment, and flammable materials.
	1.2.5	Refuse unsafe work if necessary.
1.3 Respond to laboratory emergencies, incidents, and accidents according to protocols	1.3.1	Use spill containment and clean-up procedures for biological and other hazardous materials.
	1.3.2	Implement fire containment or escape procedures.
	1.3.3	Document and report all safety and personal injury incidents.
	1.3.4	Maintain safety in potentially dangerous situations.
	1.3.5	Obtain assistance when warranted.

The medical laboratory assistant requires knowledge and critical thinking skills to constructively investigate, evaluate, and problem solve. This list is meant to assist with curriculum development and the assessment of learning.

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Safe Work Practices Knowledge Requirements

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Legislative <u>requirements</u> (including WHMIS)

Workplace policies, procedures, manuals

Safe practices and workplace risks (including hazard symbols)

Principles of disinfection and sterilization

<u>Ergonomics</u> and <u>strategies</u> that support ergonomic practice

Occupational health and safety

Prevention of occupational injuries

Management of incidents

Competency Category 2:
Equipment, Instruments, and Reagents

The Medical Laboratory Assistant uses laboratory equipment and instruments and prepares reagents according to established protocols in areas of practice such as medical laboratory specimen processing/collection centres (including in-patients, out patient clinics, and community labs), Clinical Chemistry, Hematology, Histotechnology, Microbiology, Transfusion Science, Clinical Genetics, Diagnostic Cytology, emergency departments, physician offices, medical clinics.

Exam Content: 10-15%

*Indicates new to the competency profile

Competencies		Performance Criteria
2.1 Operate standard laboratory equipment	2.1.1	Operate equipment correctly, safely, and according to protocols (includes procedures and manuals).
	2.1.2	Assess equipment operability.
	2.1.3	Recognize malfunctions in equipment.
	2.1.4	Perform preventative maintenance.
	2.1.5	Maintain instrument and equipment logs.
2.2 Assess the suitability of reagents	2.2.1	Use/prepare (store/dispose) reagents correctly, safely, and according to protocols.
	2.2.2	Recognize reagent issues (e.g., out of date, poor quality, incorrect reconstitution, etc.).
	2.2.3	Maintain reagent preparation logs.
2.3 Types of Equipment/ Instruments/ Reagents used by MLAs. This is not an exhaustive list but rather a list of the most common.		Needles, vacutainers, tourniquet, etc.
		Point-of-care testing instruments (e.g., ECG*, Holter*, glucose monitors, etc.)
		Light measuring systems* (e.g., spectrophotometer and fluorometer, etc.)
		Microscope - bright field, may include fluorescent, inverted, phase contrast
		Centrifuge, biosafety cabinet, fume hoods, pipettes, serological pipette controllers, vacuum aspiration systems, autoclaves, micro incinerators/sterilizers, inoculating loops, inoculating needles, anaerobic jars, etc.
		Reagent preparation equipment (e.g., pH meter, balance, autoclave, glassware)
		Computer and software
		Stainer
		Osmometer*
		Analyzers, bench-top and floor models

Competencies	Performance Criteria
	<u>Materials</u> for liquid-based cytology (e.g., brush, containers, etc.)

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Equipment, Instruments, and Reagents Knowledge Requirements

WHMIS (especially SDS in relation to reagents)

Theory of, but not limited to:

- electricity
- microscopy
- centrifugation
- chemical interactions
- light measuring systems

Chemical properties and reactions

Simple laboratory mathematics

Kohler illumination

Basic principles of <u>common</u> laboratory instrumentation

Competency Category 3:
Pre-Analytical Phase

The Medical Laboratory Assistant verifies <u>relevant</u> data and ensures that appropriate specimens are collected, procured, and <u>handled</u> according to established protocols. Further, the Medical Laboratory Assistant uses judgment and knowledge to perform appropriate preanalytical (preparatory) techniques on specimens that originate from a variety of sources according to established protocols. These competencies may be practiced in areas such as medical laboratory specimen processing/collection centres (including in-patients, out patient clinics, and community labs), Clinical Chemistry, Hematology, Histotechnology, Microbiology, Transfusion Science, Clinical Genetics, Diagnostic Cytology, emergency departments, physician offices, medical clinics.

Exam Content: 40-55%

*Indicates new to the competency profile

Competencies		Performance Criteria
3.1 Collect specimen from patient according to protocols	3.1.1	Verify that specimen collection is consistent with requisition.
	3.1.2	Confirm the identity of the patient.
	3.1.3	Obtain informed consent prior to initiating procedure.
	3.1.4	Respect patient's right to refuse collection.
	3.1.5	Perform venipuncture and capillary blood collection.
	3.1.6	Obtain samples <u>suitable</u> for laboratory analysis.
	3.1.7	<u>Adapt</u> approach according to patient response.
3.2 <u>Handle</u> data accurately	3.2.1	Verify <u>relevant</u> <u>information</u> for test request.
	3.2.2	Verify that the pertinent data on the specimen and requisition correspond.
	3.2.3	Verify that specimen identification is traceable throughout sample preparation.
	3.2.4	Dispose of data according to protocols.
3.3 <u>Handle</u> specimen according to protocols	3.3.1	Adhere to guidelines for specimen set-up, retention, storage (e.g., refrigerators and freezers), transportation (e.g., dry ice, liquid nitrogen), and disposal.
	3.3.2	Adhere to established protocols for labeling and traceability of specimens.
	3.3.3	Verify accuracy of all <u>information</u> (including that the specimen received is consistent with requisition).
	3.3.4	<u>Handle</u> specimen according to priority and stability.
	3.3.5	Take responsibility for specimen <u>integrity</u>.

Competencies		Performance Criteria	
	3.3.6	Determine <u>course of action</u> if <u>preanalytical errors</u> are detected according to established protocols.	
	3.3.7	Safeguard specimen chain of custody.	
	3.3.8	Minimize risk of contamination (e.g., disinfection of workspace, cleanup of spills, use of biological safety cabinet, etc.).	
	3.3.9	Accession specimen into <u>laboratory information system</u>.	
3.4 Prepare specimen (sample) for analysis	3.4.1	<u>Assess</u> specimen (sample) suitability.	
	3.4.2	Monitor specimen (sample) for pre-analytical errors.	
	3.4.3	Select appropriate sample preparation method based on procedures.	
	3.4.4	Prepare specimen (sample) for current and future analysis (e.g., aliquoting, culturing, diluting, extracting/isolating (DNA/RNA)*, quantifying*, etc.).	
	3.4.5	Prepare smears (and/or slides) manually or using automated equipment (for microscopic analysis).	
	3.4.6	Load specimen (sample) on laboratory equipment.	
	3.4.7	Perform staining correctly.	

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Preanalytical Phase Knowledge Requirements

Medical terminology and anatomy

Specimen collection methods

Specimen transportation methods and <u>requirements</u> (e.g., Transportation of Dangerous Goods (TDG) Standards and Regulations, dry ice, etc.)

Specimen <u>integrity</u>

Standard operating procedures (for medical laboratory professionals and related health care workers)

Accessioning <u>laboratory information systems</u>, manual or electronic

Biologic variables and their impact on test results (e.g., diet, positioning)

Physical and chemical principles of routine staining (e.g., Jenner-Giemsa, Gram, Wright, Hematoxylin and Eosin, Papanicolaou, Leishman, etc.)

Sampling <u>requirements</u> for tests (referring to test library)

Competency Category 4: Analytical Phase

The medical laboratory assistant – if delegated – may be asked to perform simple analytical techniques and assess results on a variety of specimens/samples in areas of practice such as Clinical Chemistry, Hematology, Histotechnology, Microbiology, Transfusion Science, Clinical Genetics, Diagnostic Cytology, specimen processing centres, out-patient clinics, emergency departments, physician offices, or other medical clinics.

Exam Content: 5-10%

*Indicates new to the competency profile

Competencies	Performance Criteria	Areas of Practice
4.1. Analytical Techniques and Assessments	*The medical laboratory assistant must apply the principles of:*	
	Point-of-care testing techniques for screening (performed on POCT instruments, e.g., blood glucose, heart monitoring*, etc.; simple commercially available screening test kits, e.g., urine chemistry sticks, urine pregnancy, COVID rapid antigen, etc.).	• Out-patient Clinics • Emergency Departments • Specimen Processing Centres/Labs • Physician Offices • Medical Clinics
	Techniques to demonstrate cellular and non-cellular components in tissue and body fluids (e.g., routine staining, ESR, etc.).	• Hematology • Histotechnology • Microbiology • Diagnostic Cytology • Clinical Genetics
	Verify that microscopic preparations exhibit correct staining. Knowing when to request MLT assistance.	• Hematology • Histotechnology • Microbiology • Diagnostic Cytology
	Plating or re-plating* MLT identified micro-organisms (according to body site). May include culture media selection, isolation environments, aseptic techniques, etc., as delegated.	• Microbiology

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Analytical Phase Knowledge Requirements

Testing principles and methodologies, basic

Troubleshooting, basic

Normal and abnormal medical physiology

Correlation of laboratory data to disease

Competency Category 5: Post-Analytical Phase

If delegated, the medical laboratory assistant may help with simple results <u>reporting</u>, once the result(s) has/have been validated and released as acceptable by the medical laboratory technologist. The medical laboratory assistant must use appropriate terminology to correctly <u>record</u> laboratory results according to established protocols.

Exam Content: 3-7%

*Indicates new to the competency profile

Competencies		Performance Criteria
5.1 <u>Record</u> result (as delegated)	5.1.1	Provide record of results (i.e., printout, etc.) to MLT for verification.
	5.1.2	<u>Record</u> result according to protocols, once result has been validated as acceptable by the MLT, and suited to legal and regulatory <u>requirements</u> (and using the established <u>laboratory information system</u>).
	5.1.3	Verify accuracy, completeness, and clarity of <u>information</u> (results are released for <u>reporting</u> after an MLT validates the <u>recorded</u> results; this may include, in rare instances, issuing blood product after an MLT has processed, labelled, and released it* to the bank with patient <u>information</u>, following appropriate laboratory protocols).

NOTE on issuing blood products: Rare and extenuating circumstances where MLAs may be required to fulfill this role due to severe shortages of MLTs to deliver this service in rural/remote locations, First Nations communities, etc.

The medical laboratory assistant requires knowledge and critical thinking skills to constructively investigate, evaluate, and problem solve. This list is meant to assist with curriculum development and the assessment of learning.

Post-analytical Phase Knowledge Requirements

<u>Recording</u> protocols
Standard <u>reporting</u> mechanisms
Principles of receiving, handling, and transporting blood products

Competency Category 6:
Quality and Resource Management

The medical laboratory assistant practises and promotes the principles of quality management and addresses workplace challenges by applying skills in change management, materials management, financial management, and information management.

Exam Content: 5-10%

Competencies	Performance Criteria	
6.1 Perform internal and external quality control measures (according to requirements)	6.1.1	Make quality a primary objective in all aspects of work so work can be done correctly and efficiently.
	6.1.2	Document quality control data according to procedures.
	6.1.3	Use information management systems correctly.
	6.1.4	Verify the quality of new reagents and media.
	6.1.5	Respond to deficiencies that may affect the quality of testing.
	6.1.6	Prepare and run quality control and calibration on equipment/instruments.
	6.1.7	Assess calibration data for point-of-care equipment/instruments.
	6.1.8	Recognize when quality control measures must be implemented, including when equipment requires calibration.
	6.1.9	Apply continuous quality improvement techniques.
	6.1.10	Contribute to the revision of procedures, protocols, and reference information.
	6.1.11	Follow guidelines in filling out incident reports (ensuring timeliness).
	6.1.12	Participate in quality assurance activities.
6.2 Apply risk management processes	6.2.1	Address errors and occurrences.
	6.2.2	Assess the frequency and consequences of errors and occurrences.
	6.2.3	Reduce risk of potential harm to an acceptable level.
6.3 Manage health care resources	6.3.1	Adapt to change in a dynamic environment.
	6.3.2	Manage time, priorities, and work quality.
	6.3.3	Maximize efficient use of resources.
	6.3.4	Maintain inventory according to organizational requirements.

The medical laboratory assistant requires knowledge and critical thinking skills to constructively investigate, evaluate, and problem solve. This list is meant to assist with curriculum development and the assessment of learning.

Quality and Resource Management Knowledge Requirements

Quality management systems

Inventory systems

Time management

Legislative requirements

Workplace policies, procedures, and manuals

Continuous quality management, monitoring, and improvement

Competency Category 7: Communication and Collaboration

The medical laboratory assistant interacts using effective communication and teamwork and interprofessional interpersonal skills to collaborate with colleagues, other health care professionals, and patients/clients.

Exam Content: 5-10%

Competencies		Performance Criteria
7.1 Communicate effectively	7.1.1	Meet language proficiency requirements in English or French (where required).
	7.1.2	Use format, medium, and techniques suited to purpose and audience.
	7.1.3	Consider how context affects meaning and messaging.
	7.1.4	Use precise language and correct grammar.
	7.1.5	Present information that is accurate, concise, and complete.
	7.1.6	Adjust speech according to intent of message.
	7.1.7	Repair communication breakdowns.
	7.1.8	Work with interpreters as needed.
	7.1.9	Clarify to enhance understanding.
	7.1.10	Respond to individual and group stress.
	7.1.11	Check quality of written text.
	7.1.12	Maintain and retain accurate records.
	7.1.13	Use electronic and digital technologies appropriately and responsibly.
7.2 Interact with patients/clients	7.2.1	Apply patient-, family-, and community-centred approaches to care.
	7.2.2	Develop professional relationships based on mutual trust, integrity, and respect.
	7.2.3	Respond to signs of client/patient stress.
	7.2.4	Show empathy when assisting clients/patients.
	7.2.5	Provide information on specimen collection, transportation, and storage.
	7.2.6	Collaborate with people's support networks for best possible outcomes.
7.3 Collaborate with other laboratory	7.3.1	Maintain mutually supportive working relationships.
	7.3.2	Respect the perspective of others.

Competencies		Performance Criteria
and health professionals	7.3.3	Consult with members of the health care team when <u>warranted</u>.
	7.3.4	Share patient/client <u>information</u> with <u>others</u> as applicable and in line with legislative <u>requirements</u>.
	7.3.5	Clarify one's role and scope of practice.
	7.3.6	<u>Manage conflicts</u>.
7.4 Demonstrate respect for diversity, dignity, values, and beliefs of <u>others</u>	7.4.1	Challenge own <u>assumptions</u> about self or <u>others</u>.
	7.4.2	Learn about the ideas and opinions of <u>others</u>.
	7.4.3	Exhibit <u>inclusive behaviour</u>.
	7.4.4	Practise <u>cultural humility</u>.
	7.4.5	Use vocabulary that is respectful and inclusive of <u>others</u>.
	7.4.6	Recognize systems and behaviours that exclude <u>others</u>.
	7.4.7	Meet employer policies regarding <u>cultural safety</u>, diversity, equity, harassment, and discrimination.

The medical laboratory assistant requires knowledge and critical thinking skills to constructively investigate, evaluate, and problem solve. This list is meant to assist with curriculum development and the assessment of learning.

Communication and Collaboration Knowledge Requirements

Communication principles and <u>strategies</u>
Diversity, cultural awareness, and acceptance
Emotional intelligence
Correct use of <u>information management systems</u>, manual or electronic
Legislation and standards of practice
Ethical practice
Health care privacy and confidentiality laws
Scope of practice, role clarification
Professional codes of ethics
<u>Cultural safety</u> and <u>cultural humility</u>
Disruptive behaviour
Power, hierarchy
Conflict resolution and negotiation <u>techniques</u>
Human rights
Knowledge translation and dissemination
Team functioning, group dynamics and processes
Interprofessional communication and collaborative practice
Trust and partnership
Contribution and commitment

Competency Category 8: Professional Practice

The medical laboratory assistant meets the legal and ethical <u>requirements</u> of practice and protects the patient's right to a reasonable standard of care. Professional responsibility encompasses scope of practice, accountability, and professional development.

Exam Content: 4-8%

Competencies		Performance Criteria
8.1 Exhibit professional behaviour	8.1.1	Be accountable for own decisions and actions.
	8.1.2	<u>Manage</u> own biases, perspectives, and world views.
	8.1.3	Demonstrate a <u>professional presence</u>.
	8.1.4	Act in the face of <u>conflicts of interest</u>.
	8.1.5	Practise in a manner than sustains public trust in the profession.
	8.1.6	Promote the image and status of the profession as part of the health care team.
	8.1.7	Maintain personal <u>health and wellbeing</u>.
	8.1.8	Enhance effective and sustainable practice through self-care and lifestyle <u>strategies</u>.
8.2 Integrate professional responsibilities into practice	8.2.1	Comply with regulatory <u>requirements</u> if applicable to designation.
	8.2.2	Follow <u>relevant</u> codes of ethics, codes of conduct, and standards of practice.
	8.2.3	<u>Maintain</u> privacy, confidentiality, security, and data integrity.
	8.2.4	Work within scope of practice and area of expertise.
	8.2.5	Respect professional <u>boundaries</u>.
	8.2.6	Seek help or decline to act when a matter is beyond own competence or scope.
	8.2.7	<u>Manage</u> moral and ethical issues that may affect outcomes.
	8.2.8	Report unprofessional, unethical, unsafe, or oppressive behaviours to the appropriate authorities.
8.3 Demonstrate a commitment to lifelong learning	8.3.1	Reflect on opportunities for improvement through continual evaluation.
	8.3.2	Formulate specific, measurable, and realistic learning goals.
	8.3.3	Implement <u>strategies</u> to achieve learning goals.

Competencies		Performance Criteria
	8.3.4	Integrate new knowledge and skills into practice.
	8.3.5	Remain open to learning new skills throughout career.
	8.3.6	Assist others with their learning.
8.4 Engage in reflective and evidence-informed practice	8.4.1	Access reliable sources of information.
	8.4.2	Seek out varied sources of information and feedback.
	8.4.3	Evaluate information using relevant tools.
	8.4.4	Use evidence and other knowledge sources to draw conclusions.
	8.4.5	Evaluate outcomes of decisions.
8.5 Apply problem-solving strategies	8.5.1	Demonstrate effective trouble-shooting strategies.
	8.5.2	Develop approaches for managing ambiguities, incomplete information, and uncertainty.
	8.5.3	Explore complex issues from many points of view.
	8.5.4	Initiate corrective action as indicated.
	8.5.5	Initiate follow-up as required.
	8.5.6	Seek the advice of others as required.

The medical laboratory assistant requires knowledge and critical thinking skills to constructively investigate, evaluate, and problem solve. This list is meant to assist with curriculum development and the assessment of learning.

Professional Practice Knowledge Requirements

Legislation, standards of practice, codes of ethics/conduct

Ethical practice

Professionalism

Professional values, responsibility, and accountability

Professional boundaries

Culture of safety

Conflicts of interest

Professional quality assurance, professional development, and continuing competence

Setting learning goals

Lifelong learning

Best practices and sources of evidence

Knowledge-based practice, research use

Change management strategies and their implementation

Mentorship

Self-awareness and critical reflection

Self-care strategies, fitness to practice

Clarifications

TERM	CLARIFICATION
adapt	e.g., consider effects of changes in other areas of health care
address	e.g., seek the advice of others, conduct additional inquiries
as indicated	e.g., related to equipment deficiency, specimen integrity
assess	through quality control and calibration
assumptions	i.e., based on culture, orientation, working style, general world view
boundaries	an invisible structure imposed by legal, ethical, and professional standards that respect the rights of the practitioner and others
communication breakdowns	a failure in the exchange of information, often due to the use of ambiguous and confusing messages
common	in the case of the medical laboratory: this should be interpreted as equipment, instruments, reagents, and tests that are used/ordered on a regular basis
conflicts of interest	both real and perceived
course of action	e.g., test cancellation, caregiver notification
cultural humility	a process of self-reflection to understand personal and systemic conditioned biases and to develop and maintain respectful processes and relationships based on mutual trust (FNHA, 2020)
cultural safety	an outcome based on respectful engagement that recognizes and strives to address power imbalances inherent in the health care system; it results in an environment free of racism and discrimination, where people feel safe when receiving health care (FNHA, 2020)
ergonomics	the design and modification of work and the work environment to eliminate discomfort and risk of injury
evidence	e.g., literature review, data analysis, research methodologies/studies, patient information
follow-up	may include reviewing the process and result with a member of the team, conferring with colleagues, delivering result to a supervisor
group stress	the result of poor interpersonal relationships and conflicts
handle	label, date, store, transport, dispose
heart monitoring	e.g., ECG (up to 12 Leads) and Holter POCT
health and wellbeing	including physical, mental, emotional, and spiritual health
inclusive behaviour	as measured by a sense of belonging, connection, and community
information	e.g., spelling of name on labels
information management systems	e.g., computer, laboratory information systems, related technology
integrity	e.g., temperature requirements; centrifuge/serum separation requirements; aseptic technique; cryopreservation
laboratory information system	used for ordering, recording, releasing, and reporting laboratory tests; also known as LIS
maintain/retain	according to standard operating procedures, protocols, regulations, legislation, etc.
manage	identify, develop, correct, seek assistance when required

TERM	CLARIFICATION
manage conflicts	includes resolve, accommodate, communicate about, report if appropriate; keep private and do not discuss publicly
materials	chemicals, dyes, reagents, solutions, including dry ice/liquid nitrogen for transportation of dangerous goods, disposable supplies, and waste
others	e.g., students, new staff, other health care professionals
preanalytical errors	e.g., mislabeled or unlabeled; quantity not sufficient; use of inappropriate container; insufficient or clotted specimen; transport delay; requisition error; storage/temperature; leaking; improper collection
professional presence	behaviour and presentation in accordance with professional standards and expectations, including verbal and non-verbal communication—including on social media—and articulation of a positive role and professional image
quality assurance activities	focuses on "process management": a broader focus than quality control measures - e.g., participate in proficiency testing, audits, accreditation
quality control measures	focuses on "method control": verified examination methods controlled to ensure production of correct results - e.g., verify instrument's internal controls, ensure data points are within acceptable ranges, assess specimen integrity, ensure specimen is correctly identified at all times
quality improvement techniques	e.g., through aligning priorities, analyzing workflows, openly discussing change
relevant	e.g., patient history, specimen source
record (ed, ing)	enter or print result obtained
reporting	using an electronic interface or manual process to disseminate result to ordering health practitioners, once results are validated by an MLT
requirements	e.g., standard operating procedures, quality control measurements, instrument calibration schedules, preventative maintenance schedules, analyte (proficiency) testing, legislation, codes of ethics, rules, regulations
resources	e.g., time, equipment, personnel
respond	i.e., identify, document, report, trouble-shoot, follow standard operating procedures
routine practices	a combination of universal precautions and body substance isolation; routine practices aim to protect against the transmission of all microorganisms through contact with all body fluids, excretions, mucous membranes, non-intact skin, and soiled items in addition to precautions for blood; there are 5 major components to routine practices: risk assessment, hand hygiene, personal protective equipment, environmental controls, and administrative controls
safety devices	e.g., biological safety cabinet, fume hood, laminar flow cabinet, safety pipetting device, safety container and carrier, safety shower, eye wash station, personal protective equipment
standard laboratory equipment	e.g., microscope, centrifuge, biosafety cabinet, various pipettes, autoclave, balance, pH meter, various automated systems, computer, etc.

TERM	CLARIFICATION
strategies	e.g., informal learning opportunities, mentorship, workshops, conferences, webinars, advanced education
suitable	e.g., through the delivery of accurate instructions to patient; collection time/day; use proper containers; obtain sufficient volume
support networks	i.e., family members, substitute decision-makers, powers of attorney, interpreters
techniques	includes using technology to perform a procedure, facilitate communication, etc.
warranted	e.g., for questions about interpretation of results, assurance of quality of a test, discussion of potential sources of error or variables to be considered in test interpretation, determination of need for a specialized test

Revision History

Date	Revisions
2024-FEB-26	Published
2024-JUN-12	Effective date changed
	Changed Professional Code of Conduct to most recent version
	Edits to Category 4 Competency Statement and 4.1 "techniques" section for clarity
2024-NOV-26	Removed new competency from 4.1 "or are negative for cellular or non-cellular elements (wet preps)*" and Clinical Chemistry from Area of Practice for this competency.