



Pan-Canadian Entry-to-Practice Competency Profile for

Medical Laboratory Assistant (MLA)

Effective with the February 2027 CSMLS Examination

Mapping Guide 2024 Competencies to 2016 Competencies

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Competency Category 1: Safe Work Practices Mapped to 2016 Competencies

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

Exam Content: 8-12%

Competencies		Performance Criteria	2016 Competencies
1.1 <u>Maintain</u> a safe work environment	1.1.1	Use <u>routine practices</u> and additional precautions.	1.01, 1.02
	1.1.2	Apply laboratory hygiene and infection control practices.	1.03
	1.1.3	Use laboratory <u>safety devices</u> safely and effectively.	1.05
	1.1.4	<u>Handle materials</u> according to standard operating procedures and protocols.	1.06
	1.1.5	Practice good <u>ergonomics</u> .	1.15
1.2 Minimize dangers from specimens, supplies and equipment	1.2.1	Use and dispose of sharps safely.	1.04, 1.07
	1.2.2	<u>Handle biological</u> and other hazardous <u>materials</u> according to legislation.	1.04, 1.08
	1.2.3	Disinfect and sterilize items using the proper method.	1.04, 1.09
	1.2.4	Minimize potential hazards associated with disinfection and sterilization methods, use of electrical equipment, and flammable <u>materials</u> .	1.04, 1.10
	1.2.5	Refuse unsafe work if necessary.	1.04, 7.05
1.3 <u>Respond</u> to laboratory emergencies, incidents, and accidents according to protocols	1.3.1	Use spill containment and clean-up procedures for biological and other hazardous <u>materials</u> .	1.11-1.13
	1.3.2	Implement fire containment or escape procedures.	1.11, 1.13
	1.3.3	Document and report all safety and personal injury incidents.	1.11, 1.13, 1.14
	1.3.4	<u>Maintain</u> safety in potentially dangerous situations.	1.11, 1.13, 7.05
	1.3.5	Obtain assistance when <u>warranted</u> .	1.11, 1.13

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.

Safe Work Practices Knowledge Requirements

- Ergonomics and strategies that support ergonomic practice
- Legislative requirements (including WHMIS)
- Management of incidents
- Occupational health and safety
- Principles of disinfection and sterilization
- Prevention of occupational injuries
- Safe practices and workplace risks (including hazard symbols)
- Workplace policies, procedures, manuals



Competency Category 2: Equipment, Instruments, and Reagents Mapped to 2016 Competencies

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	2016 Competencies
2.1 Operate <u>standard laboratory equipment</u>	2.1.1	Operate equipment correctly, safely, and according to protocols (includes procedures and manuals).	1.04, 1.05, 1.14, 3.01-3.03, 4, 6.02, 6.03, 6.06, 6.07, 6.08
	2.1.2	<u>Assess</u> equipment operability.	3.01-3.03, 4, 6.03, 6.06-6.08
	2.1.3	Recognize malfunctions in equipment.	6.08
	2.1.4	Perform preventative maintenance.	4.03, 6.07
	2.1.5	<u>Maintain</u> instrument and equipment logs.	6.07
2.2 <u>Assess</u> the suitability of reagents	2.2.1	Use/prepare (store/dispose) reagents correctly, safely, and according to protocols.	4.01

Competencies		Performance Criteria	2016 Competencies
	2.2.2	Recognize reagent issues (e.g., out of date, poor quality, incorrect reconstitution, etc.).	1.06, 4.01, 6.02, 6.03, 6.06, 6.07
	2.2.3	<u>Maintain</u> reagent preparation logs.	1.06, 1.08, 4.01
2.3 Types of Equipment/ Instruments: This is not an exhaustive list but rather a list of the most <u>common</u> .		Needles, vacutainers, tourniquet, etc.	1.07, 2.04, 2.05
		Point-of-care testing instruments (e.g., *ECG, *Holter*, glucose monitors, etc.)	2.15, 2.16, and New
		*Light measuring systems (e.g., spectrophotometer and fluorometer, etc.)	New
		Microscope - bright field, may include fluorescent, inverted, phase contrast	3.03, 6.06
		Centrifuge, biosafety cabinet, fume hoods, pipettes, serological pipette controllers, vacuum aspiration systems, autoclaves, micro incinerators/sterilizers, inoculating loops, inoculating needles, anaerobic jars, etc.	1.01-1.05, 2.12, 3.03, 3.04, 4.01-4.03
		Reagent preparation equipment (e.g., pH meter, balance, autoclave, glassware)	4.02
		Computer and software	6.13
		Stainer	3.02, 3.03
		*Osmometer	New
		Analyzers, bench-top and floor models	3.01-3.03
		<u>Materials</u> for liquid-based cytology (e.g., brush, containers, etc.)	3.02, 3.03

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Equipment, Instruments, and Reagents Knowledge Requirements

Basic principles of common laboratory instrumentation

Chemical properties and reactions

Kohler illumination

Simple laboratory mathematics

Theory of, but not limited to:

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

WHMIS (especially SDS in relation to reagents)



Competency Category 3: Pre-Analytical Phase Mapped to 2016 Competencies

The Medical Laboratory Assistant verifies relevant data and ensures that appropriate specimens are collected, procured, and handled 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	2016 Competencies
3.1 Collect specimen from patient according to protocols	3.1.1	Verify that specimen collection is consistent with requisition.	2.02 -2.04 2.08, 2.09, 2.13, 2.16
	3.1.2	Confirm the identity of the patient.	2.04
	3.1.3	Obtain informed consent prior to initiating procedure.	2.03, 7.04
	3.1.4	Respect patient's right to refuse collection.	5.04, 7.04, 7.09, 7.12
	3.1.5	Perform venipuncture and capillary blood collection.	2.04, 2.05
	3.1.6	Obtain samples <u>suitable</u> for laboratory analysis.	2.03, 2.04, 2.05
	3.1.7	<u>Adapt</u> approach according to patient response.	5.01, 5.04, 7.09, 7.12, 7.13
3.2 <u>Handle</u> data accurately	3.2.1	Verify <u>relevant information</u> for test request.	2.01, 2.09
	3.2.2	Verify that the pertinent data on the specimen and requisition correspond.	2.09
	3.2.3	Verify that specimen identification is traceable throughout sample preparation.	2.04-2.06, 2.09, 2.14
	3.2.4	Dispose of data according to protocols.	Category 1 preamble, 2.10, 6.02, 6.13, 7.01, 7.02
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.	2.11, 2.14

Competencies		Performance Criteria	2016 Competencies
	3.3.2	Adhere to established protocols for labeling and traceability of specimens.	2.06
	3.3.3	Verify accuracy of all <u>information</u> (including that the specimen received is consistent with requisition).	2.02, 2.09
	3.3.4	<u>Handle</u> specimen according to priority and stability.	2.07, 2.11
	3.3.5	Take responsibility for specimen <u>integrity</u> .	2.03-2.09, 2.11-2.13, 2.16, 6.02, 6.06, 7.06, 8.06
	3.3.6	Determine <u>course of action</u> if <u>preanalytical errors</u> are detected according to established protocols.	2.13
	3.3.7	Safeguard specimen chain of custody.	2.05
	3.3.8	Minimize risk of contamination (e.g., disinfection of workspace, clean up of spills, use of biological safety cabinet, etc.).	1.01-1.05, 1.07-1.14, 3.04
	3.3.9	Accession specimen into <u>laboratory information system</u> .	2.10, 6.13
	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.	2.07, 2.08, 2.11, 2.13, 6.06, 6.07
3.4.3		Select appropriate sample preparation method based on procedures.	2.12
3.4.4		Prepare specimen (sample) for current and future analysis (e.g., aliquoting, culturing, diluting, *extracting/isolating (DNA/RNA), *quantifying , etc.).	2.11, 2.12, 2.14, 3.02-3.04, and New
3.4.5		Prepare smears (and/or slides) manually or using automated equipment (for microscopic analysis).	2.12, 3.02
3.4.6		Load specimen (sample) on laboratory equipment.	3.01
3.4.7		Perform staining correctly.	3.03

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Preanalytical Phase Knowledge Requirements

Accessioning laboratory information systems, manual or electronic
 Biologic variables and their impact on test results (e.g., diet, positioning) 7.11
 Medical terminology and anatomy

Preanalytical Phase Knowledge Requirements

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

Sampling requirements for tests (referring to test library)

Specimen collection methods

Specimen integrity

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

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



Competency Category 4: Analytical Phase Mapped to 2016 Competencies

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	2016 Competencies
4.1. Analytical Techniques and Assessments	<i>The medical laboratory assistant must apply the principles of:</i>	
	Point-of-care testing <u>techniques</u> 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.).	2.15, 2.16, 6.02, 6.06, 6.08, 7.03, and New
	<u>Techniques</u> to demonstrate cellular and non-cellular components in tissue and body fluids (e.g., routine staining, ESR, etc.).	3.02, 3.03, 6.02, 6.06, 7.03
	Verify that microscopic preparations exhibit correct staining. Knowing when to request MLT assistance.	3.03, 6.02, 6.06, 7.03, 8.08
	Plating or *re-plating MLT identified microorganisms (according to body site). May include culture media selection, isolation environments, etc., as delegated.	3.04, 7.03

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Analytical Phase Knowledge Requirements

- Correlation of laboratory data to disease
- Normal and abnormal medical physiology
- Testing principles and methodologies, basic
- Troubleshooting, basic



Competency Category 5: Post-Analytical Phase Mapped to 2016 Competencies

If delegated, the medical laboratory assistant may help with simple results reporting, 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 record laboratory results according to established protocols.

Exam Content: 3-7%

***Indicates new to the competency profile**

Competencies		Performance Criteria	2016 Competencies
5.1 <u>Record</u> result (as delegated)	5.1.1	Provide record of results (i.e., printout) to MLT for verification.	2.16, 6.02, 6.03, 6.06, 6.09, 7.03, 8.06
	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>).	2.16, 6.13, 7.02, 7.03, 8.06
	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 correct patient <u>information</u> , following appropriate laboratory protocols).	2.16, 6.02, 6.06, 6.08, 6.13, 7.02, 7.03, 7.06, 8.06, and New

Note on issuing blood products: This is a rare and extenuating circumstance where MLAs may be required to fulfill this role due to severe shortages of MLTs when deliver this service in rural/remote locations, First Nations communities, etc.

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Post-analytical Phase Knowledge Requirements

Principles of receiving, handling, and transporting blood products

Recording protocols

Standard reporting mechanisms



Competency Category 6: Quality and Resource Management Mapped to 2016 Competencies

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	2016 Competencies
6.1 Perform internal and external <u>quality control measures</u>	6.1.1	Make quality a primary objective in all aspects of work so work can be done correctly and efficiently.	6.01, 6.02, 6.03, 6.05, 8.04, 8.05, 8.07
	6.1.2	Document quality control data according to procedures.	6.01, 6.02, 6.06-6.08
	6.1.3	Use <u>information management systems</u> correctly.	6.01, 6.13
	6.1.4	Verify the quality of new reagents and media.	6.01, 6.03, 6.06-6.08
	6.1.5	<u>Respond</u> to deficiencies that may affect the quality of testing.	6.01, 6.06
	6.1.6	Prepare and run quality control and calibration on equipment/instruments.	6.01, 6.03
	6.1.7	<u>Assess</u> calibration data for point-of-care equipment/ instruments.	2.15, 2.16, 6.01, 6.03, 6.07, 6.08
	6.1.8	Recognize when <u>quality control measures</u> must be implemented, including when equipment requires calibration.	6.01, 6.08
	6.1.9	Apply continuous <u>quality improvement techniques</u> .	6.01, 6.05, 6.09
	6.1.10	Contribute to the revision of procedures, protocols, and reference <u>information</u> .	6.01, 6.04
	6.1.11	Follow guidelines in filling out incident reports (ensuring timeliness).	1.14, 2.13, 2.16, 6.01, 6.02, 6.06, 6.08, 6.11, 7.06, 8.02

Competencies		Performance Criteria	2016 Competencies
	6.1.12	Participate in <u>quality assurance activities</u> .	6.01, 6.09, 6.11, 7.07, 8.07
6.2 Apply risk management processes	6.2.1	<u>Address</u> errors and occurrences.	1.14, 2.16, 6.08, 6.10, 7.03, 7.06
	6.2.2	<u>Assess</u> the frequency and consequences of errors and occurrences.	6.10, 7.06, 7.09, 8.03, 8.06
	6.2.3	Reduce risk of potential harm to an acceptable level.	1.01-1.15, 2.13, 2.16, 5.01, 5.03, 5.04, 6.05-6.08, 6.10, 7.03, 7.05, 7.13
6.3 <u>Manage</u> health care <u>resources</u>	6.3.1	<u>Adapt</u> to change in a dynamic environment.	5.01-5.04, 8.01, 8.02
	6.3.2	<u>Manage</u> time, priorities, and work quality.	2.07, 6.05, 8.04
	6.3.3	Maximize efficient use of <u>resources</u> .	8.05, 8.07
	6.3.4	<u>Maintain</u> inventory according to organizational <u>requirements</u> .	6.12

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Quality and Resource Management Knowledge Requirements

Continuous quality management, monitoring, and improvement
Inventory systems
Legislative requirements
Quality management systems
Time management
Workplace policies, procedures, and manuals



Competency Category 7: Communication and Collaboration Mapped to 2016 Competencies

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	2016 Competencies
7.1 Communicate effectively	7.1.1	Meet language proficiency <u>requirements</u> in English or French (where required).	5.01, 7.02, 7.03, 7.06
	7.1.2	Use format, medium, and <u>techniques</u> suited to purpose and audience.	5.01-5.04, 7.06, 7.07, 7.13, 8.01, 8.08
	7.1.3	Consider how context affects meaning and messaging.	5.01, 5.04, 7.13, 8.01, 8.02, 8.08
	7.1.4	Use precise language and correct grammar.	2.01, 2.03, 5.01
	7.1.5	Present <u>information</u> that is accurate, concise, and complete.	2.02, 2.03, 2.05, 2.06, 5.01, 5.03,
	7.1.6	Adjust speech according to intent of message.	2.04, 5.01, 5.03, 5.04, 7.13
	7.1.7	Repair <u>communication breakdowns</u> .	5.01-5.04, 7.13
	7.1.8	Work with interpreters as needed.	5.01, 5.04
	7.1.9	Clarify to enhance understanding.	5.01, 5.03, 5.04, 7.13
	7.1.10	<u>Respond</u> to individual and <u>group stress</u> .	5.01, 7.13
	7.1.11	Check quality of written text.	2.02, 2.05, 2.06, 2.09, 5.01,
	7.1.12	<u>Maintain</u> and <u>retain</u> accurate records.	1.06, 1.08, 1.14, 2.02, 2.05, 2.06, 2.09, 2.10, 2.11, 2.13, 2.14, 5.01, 5.03
	7.1.13	Use electronic and digital technologies appropriately and responsibly.	2.10, 5.01, 6.08, 6.13, 7.01, 7.02, 7.06, 7.09, 7.10
7.2 Interact with patients/clients	7.2.1	Apply patient-, family-, and community-centred approaches to care.	5.04, 7.04, 7.09-7.13
	7.2.2	Develop professional relationships based on mutual trust, integrity, and respect.	5.01-5.04, 7.01, 7.03, 7.06, 7.08-7.13

Competencies		Performance Criteria	2016 Competencies
	7.2.3	<u>Respond</u> to signs of client/patient stress.	5.04, 7.13
	7.2.4	Show empathy when assisting clients/patients.	5.04, 7.13
	7.2.5	Provide <u>information</u> on specimen collection, transportation, and storage.	2.03
	7.2.6	Collaborate with people's <u>support networks</u> for best possible outcomes.	5.01-5.04, 7.04, 7.09, 7.11, 7.12, 7.13, 8.01, 8.05
7.3 Collaborate with other laboratory and health professionals	7.3.1	Maintain mutually supportive working relationships.	5.02, 5.03
	7.3.2	Respect the perspective of <u>others</u> .	5.01-5.04, 7.04, 7.12, 7.13, 8.01
	7.3.3	Consult with members of the health care team when <u>warranted</u> .	2.16, 5.02, 5.03, 6.03, 6.05, 7.03, 7.06
	7.3.4	Share patient/client <u>information</u> with <u>others</u> as applicable and in line with legislative <u>requirements</u> .	7.01, 7.02, 7.09
	7.3.5	Clarify one's role and scope of practice.	2.16, 5.03, 7.03, 8.03
	7.3.6	<u>Manage conflicts</u> .	5.01, 7.13, 8.06
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> .	2.16, 5.03, 7.03, 7.07, 7.09, 7.12, 8.01, 8.03
	7.4.2	Learn about the ideas and opinions of <u>others</u> .	7.07, 7.12, 7.13, 8.01, 8.03
	7.4.3	Exhibit <u>inclusive behaviour</u> .	5.02, 7.12, 8.03
	7.4.4	Practise <u>cultural humility</u> .	5.01-5.04, 7.12, 8.03
	7.4.5	Use vocabulary that is respectful and inclusive of <u>others</u> .	5.01-5.04, 7.06, 7.12, 8.03
	7.4.6	Recognize systems and behaviours that exclude <u>others</u> .	5.01-5.04, 7.12, 8.03
	7.4.7	Meet employer policies regarding <u>cultural safety</u> , diversity, equity, harassment, and discrimination.	6.02, 7.02, 7.06, 7.07, 7.11, 7.12

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Communication and Collaboration Knowledge Requirements

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



Competency Category 8: Professional Practice Mapped to 2016 Competencies

The medical laboratory assistant meets the legal and ethical requirements 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	2016 Competencies
8.1 Exhibit professional behaviour	8.1.1	Be accountable for own decisions and actions.	5.03, 7.06
	8.1.2	<u>Manage</u> own biases, perspectives, and world views.	5.01-5.04, 7.06, 7.07, 7.09, 8.03
	8.1.3	Demonstrate a <u>professional presence</u> .	2.03, 2.04, 7.04, 7.06, 7.08, 7.10, 7.12, 7.13
	8.1.4	Act in the face of <u>conflicts of interest</u> .	1.14, 2.13, 6.06, 7.03, 7.06, 7.09, 7.10, 8.03
	8.1.5	Practise in a manner than sustains public trust in the profession.	7.08

Competencies		Performance Criteria	2016 Competencies
	8.1.6	Promote the image and status of the profession as part of the health care team.	7.08
	8.1.7	Maintain personal <u>health and wellbeing</u> .	7.11, 8.03
	8.1.8	Enhance effective and sustainable practice through self-care and lifestyle <u>strategies</u> .	7.11, 8.03, 8.08
8.2 Integrate professional responsibilities into practice	8.2.1	Comply with regulatory <u>requirements</u> if applicable to designation.	7.02
	8.2.2	Follow <u>relevant</u> codes of ethics, codes of conduct, and standards of practice.	7.02, 7.09
	8.2.3	<u>Maintain</u> privacy, confidentiality, security, and data integrity.	7.01
	8.2.4	Work within scope of practice and area of expertise.	2.16, 5.03, 7.02, 7.03
	8.2.5	Respect professional <u>boundaries</u> .	5.02, 5.03, 7.06, 7.09, 7.12
	8.2.6	Seek help or decline to act when a matter is beyond own competence or scope.	2.16, 5.03, 7.03
	8.2.7	<u>Manage</u> moral and ethical issues that may affect outcomes.	7.09
	8.2.8	Report unprofessional, unethical, unsafe, or oppressive behaviours to the appropriate authorities.	1.14, 6.02, 7.02, 7.05, 7.09, 7.10, 7.13, 8.03, 8.06
8.3 Demonstrate a commitment to lifelong learning	8.3.1	Reflect on opportunities for improvement through continual evaluation.	7.07, 8.01, 8.03, 8.08
	8.3.2	Formulate specific, measurable, and realistic learning goals.	7.03, 7.07, 8.03, 8.08
	8.3.3	Implement <u>strategies</u> to achieve learning goals.	7.03, 7.07, 8.03, 8.08
	8.3.4	Integrate new knowledge and skills into practice.	2.16, 5.03, 7.03, 7.07, 7.09, 8.03, 8.07, 8.08
	8.3.5	Remain open to learning new skills throughout career.	6.09, 7.03, 7.07, 8.03, 8.07, 8.08
	8.3.6	Assist <u>others</u> with their learning.	2.03, 5.02, 7.07, 7.08
8.4 Engage in reflective and <u>evidence-informed</u> practice	8.4.1	Access reliable sources of information.	5.01, 8.03, 8.06-8.08
	8.4.2	Seek out varied sources of information and feedback.	5.03, 6.02, 6.05, 6.10, 6.11, 7.03, 7.07, 8.03, 8.07, 8.08

Competencies		Performance Criteria	2016 Competencies
	8.4.3	Evaluate information using <u>relevant</u> tools.	6.01, 6.02, 6.05, 8.03, 8.05, 8.08
	8.4.4	Use <u>evidence</u> and other knowledge sources to draw conclusions.	8.03, 8.06-8.08
	8.4.5	Evaluate outcomes of decisions.	6.10, 7.03, 7.05-7.07, 7.09, 8.01-8.03, 8.06, 8.08
8.5 Apply <u>problem-solving strategies</u>	8.5.1	Demonstrate effective trouble-shooting <u>strategies</u> .	8.06
	8.5.2	Develop approaches for managing ambiguities, incomplete <u>information</u> , and uncertainty.	2.16, 5.03, 6.05, 7.03, 8.01, 8.03, 8.06
	8.5.3	Explore complex issues from many points of view.	6.05, 8.01, 8.03, 8.06, 8.08
	8.5.4	Initiate corrective action <u>as indicated</u> .	2.13, 2.16, 8.06
	8.5.5	Initiate <u>follow-up</u> as required.	2.16, 5.03, 6.10, 7.03, 7.06, 8.06
	8.5.6	Seek the advice of <u>others</u> as required.	2.16, 5.01-5.03, 6.03, 6.05, 7.03, 7.06, 7.07, 8.03, 8.06, 8.07

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

- Best practices and sources of evidence
- Change management strategies and their implementation
- Conflicts of interest
- Culture of safety
- Ethical practice
- Knowledge-based practice, research use
- Legislation, standards of practice, codes of ethics/conduct
- Lifelong learning
- Mentorship
- Professional boundaries
- Professional quality assurance, professional development, and continuing competence
- Professional values, responsibility, and accountability
- Professionalism
- Self-awareness and critical reflection
- Self-care strategies, fitness to practice
- Setting learning goals

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-MAR-15	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)*” from Area of Practice for this competency.