

## Competency Clarification Document

This table serves to provide educational program competency clarifications of CSMLS competency profile elements. This work resulted from joint and collaborative CSMLS and MLPAO work.

<b>CSMLS Competencies</b>	<b>MLPAO Competency Clarifications</b>
<b>CSMLS Competency 2.01</b> - <i>Demonstrates fundamental knowledge of medical terminology, physiology, anatomy, and disease processes.</i>	CC1 - Under this competency, MLA/Ts are expected to be competent in demonstrating basic knowledge of blood groups, blood products, their constitution, and tests routinely performed in transfusion medicine.
<b>CSMLS Competency 2.08</b> - <i>Assesses specimen suitability for testing.</i>	CC2 - Under this competency, MLA/Ts are expected to be competent in assessing specimens according to Transfusion Medicine specific rejection criteria (i.e., full name of the phlebotomist, collection time and date), proceed with sample rejection and request another sample.
<b>CSMLS Competency 2.11</b> <i>Adheres to guidelines for specimen retention, storage, transportation, and disposal.</i>	CC3 - Blood products are included in the competency, and MLA/Ts are expected to be competent in demonstrating knowledge of handling, receiving, delivering, and transporting blood products within their respective clinical environment.
<b>CSMLS Competency 2.12</b> – <i>Prepares specimens for analysis.</i>	CC4 - Under this competency, MLA/Ts are expected to be competent in performing erythrocyte sedimentation rate (ESR), identify possible sources of error and differentiate between the Westergren and Wintrobe methods. Additionally, MLA/Ts are expected to be competent in demonstrating knowledge of processing histology specimens, including fixation and decalcification, and cytology specimens (i.e., cytocentrifuge) to prepare them for analysis.
<b>CSMLS Competency 3.01</b> – <i>Loads specimens for analysis on laboratory equipment.</i>	CC5 - Under this competency, MLA/Ts are expected to be competent in demonstrating knowledge of loading tissue processors and liquid based processors.



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CSMLS Competencies	MLPAO Competency Clarifications
<p><b>CSMLS Competency 4.01</b> <i>Prepares/stores reagents, solutions, stains, or media to specifications.</i></p>	<p>CC6 - Under this competency, MLA/Ts are expected to be competent in demonstrating knowledge of basic theory behind the processing procedures for histology (fixation and decalcification) and cytology (fixation, preservation, cytocentrifuging, cell block prep, liquid-based processors), and which enable them to prepare reagents and stains for these specific tests.</p>
<p><b>CSMLS Competency 6.08</b> – <i>Recognizes malfunctions in equipment and instruments, initiates, and documents corrective action.</i></p>	<p>CC7 - Under this competency, MLA/Ts are expected to be competent in demonstrating knowledge of basic theory and problem-solving of equipment (i.e., cell washers, serofuge, micro-typing system, etc.) used in Transfusion Medicine, the preventive maintenance required, and their limitations. MLA/Ts are also expected to be competent in performing Kohler illumination on a microscope, when required.</p>
<p><b>CSMLS Competency 7.02</b> – <i>Complies with legislation that governs the medical laboratory profession.</i></p>	<p>CC8 - MLPAO clarifies that Ontario MLA/Ts must receive education regarding Ontario specific regulations, including, but not limited to:</p> <ul style="list-style-type: none"> <li>• Laboratory and Specimen Collection Centre Licensing Act, Regulation 682 Laboratories, 1990 &amp; Regulation 683 Specimen Collection Centres, 1990</li> <li>• Occupational Health and Safety Act, R.S.O. 1990</li> <li>• Duties of a Technician</li> <li>• Responsibility of Medical Director</li> <li>• The Regulated Health Professions Act, 1991 with special attention to section 11, Ontario Regulation 107/96 Controlled Act and exemptions</li> <li>• Personal Health Information Protection Act (PHIPA), 2004</li> </ul>

This table serves to provide Ontario-specific educational program variances. This work resulted from joint and collaborative CSMLS and MLPAO work.

CSMLS Competency	MLPAO Variance
N/A	<p><b><i>V 1.0 - (Main Competency)</i></b>  <b><i>Prepare patient for and obtain an electrocardiogram (ECG) and Holter tracings.</i></b></p> <p>Ontario MLA/T educational programs teaching ECG are expected to incorporate this competency and the following sub-competencies in their program curriculum.</p> <p><b><i>(Sub-Competencies)</i></b>  <b><i>V 1.1 - Explain the anatomy and electrophysiologic principles of the heart, cardiac conduction system and indications associated with ECG and Holter cardiac monitoring.</i></b></p> <p><b><i>V 1.2 - Explain the difference between different types of ECG and heart monitors.</i></b></p> <p><b><i>V 1.3 - Ensure patient safety and communication throughout ECG preparation and monitoring activities.</i></b></p> <p><b><i>V 1.4 - Prepare the patient and obtain a 12 lead ECG and Holter monitor tracing.</i></b></p> <p><b><i>V 1.5 - Adapt ECG preparation and assessment techniques based on the patient age and gender.</i></b></p> <p><b><i>V 1.6 - Assess the quality of the ECG tracing report, make necessary adjustments to minimize artifacts and take appropriate post-tracing actions.</i></b></p> <p><b><i>V 1.7 - Perform required ECG equipment preventive maintenance and quality control procedures to ensure equipment appropriateness and readiness.</i></b></p>
<b><i>Recommendations for Phlebotomy and ECG</i></b>	<p><i>MLA/T programs are advised to verify students as competent to perform phlebotomy and ECG during the didactic portion of the MLA/T program, prior to attending clinical placement.</i></p> <p><b><i>Phlebotomy:</i></b> <i>It is recommended that students complete a minimum of 30 successful patient phlebotomies, with a minimum of 15 being completed during the didactic phase of the program.</i></p> <p><b><i>ECG:</i></b> <i>It is recommended that students complete a minimum of 5 successful ECG tracings during the didactic phase.</i></p>