1.4 B Medical Laboratory Sciences Approved Course List

The courses listed below are approved for registrants and applicants who are completing the re-entry to practice process, as well as Medical Laboratory Technologists who have not practised in a specific field of practice for a period and are seeking to return to that field.

Applicants are advised to contact the course-providing institution directly for the most current information regarding registration requirements, course availability, and associated costs.

Completion of refresher courses and bridging programs must include an evaluation component with official transcripts or certificate that includes a grade to be accepted by the College.

For more information, contact CMLPSK by email at registration@cmlpsk.ca

Bridging Courses		
Institution	**Outline**	**More Information**
The Michener Institute of Education at UHN	CAMLPR approved bridging course for MLTs	Course information
For other bridging programs, contact CMLPSK to determine if they can be accepted		

Chemistry		
Institution	**Outline**	**More Information**
The Michener Institute of Education at UHN	Clinical Chemistry I (CC859) Topics covered include: • Proteins and electrophoresis • Liver function and enzyme testing • Renal function and urinalysis testing • Carbohydrates and lipid testing • Acid-base and electrolyte balance testing **For Chemistry - All 3 chemistry courses must be taken**	Course Information
The Michener Institute of Education at UHN	Clinical Chemistry II (CC860) Topics covered include: • Endocrinology, hormones and pituitary function • Adrenal function and testing • Thyroid function and testing • Therapeutic drug monitoring • Toxicology testing **For Chemistry - All 3 chemistry courses must be taken**	Course Information
The Michener Institute of	Clinical Chemistry III (CC861) Topics covered include: • Photometric measuring systems	Course information

Education at UHN	○ Spectrophotometry ○ Atomic Absorption Photometry ○ Nephelometry ○ Turbidimetry • Electrochemical measuring systems ○ Ion Selective Electrodes ○ Potentiometric ○ Polarographic ○ Amperometric ○ Coulometric Measurement • Partition and absorption chromatography • Electrophoresis and osmometry • Immunoassays **For Chemistry - All 3 chemistry courses must be taken**	
Northern Alberta Institute of Technology (NAIT)	Clinical Chemistry MELT504 This course enhances the knowledge that the learner has gained in their work experience, provides a review of previously studied concepts, and adds new supplementary learning objectives. With the knowledge gained in this course, you will be able to describe the structure, function, and metabolism of body fluids.	Course Information
Saskatchewan Polytechnic	Clinical Chemistry (CHEM-1804) Topics covered include: • Clinical application of the theory ○ Proteins, electrolyte and water balance, ○ Urinalysis and renal function ○ Carbohydrate metabolism, ○ Cardiovascular function, ○ Liver function, ○ Pancreatic function, ○ Blood Gases ○ Therapeutic drug monitoring. • Principles of measurement ○ Light measuring, Electrochemistry, ○ Osmolality, ○ Enzymology, ○ Immunology, ○ Electrophoresis, ○ Laboratory automation, ○ Chromatography	Course Information
Southern Alberta Institute of	Clinical Chemistry Theory Refresher (CHEM 104) Topics covered include:	Course Information

Technology (SAIT)	• Metabolism and function of carbohydrates, proteins, lipids, electrolytes and enzymes present in serum, urine and other body fluids. • Emphasis is placed upon the clinical significance of normal and abnormal test results and their correlation with disorders and disease.	
Hematology and Coagulation		
Institution	**Outline**	**More Information**

The Michener Institute of Education at UHN	Hematology and Coagulation (HE837)
	Topics covered include:
	• Clinical Coagulation
	  ○ Hemostasis and an introduction to thrombosis
	  ○ Introduction to thrombosis and anticoagulant therapy
	  ○ Disorders of plasma clotting factors
	  ○ Quantitative and qualitative platelet disorders and vascular disorders
	• Clinical Hematology
	  ○ Chronic myeloproliferative disorders
	  ○ Chronic leukemia and related lymphoproliferative disorders
	  ○ Myelodysplastic syndromes
	  ○ Hemolytic anemias
	  ○ Laboratory techniques related to clinical hematology and coagulation
		Course Information

Saskatchewan Polytechnic	Hematology Refresher (HEMA-1800) Topics covered include: • Manual laboratory techniques, • Hematology analyzers, • Blood smear evaluations, • Red blood cell disorders, • White blood cell disorders, • Hemostasis.	Course Information
Histology		
Institution	**Outline**	**More Information**
The Michener Institute of Education at UHN	Histology (HI901) Topics covered include: • Covers microanatomy and techniques of histotechnology • General principles of staining • Microanatomy • Routine tissue technique	Course Information

	• Special techniques and staining methods	
Saskatchewan Polytechnic	Histotechnology Refresher (HSTC-1800) Topics covered include: • Classification of cells and tissues • Microanatomical structure of the major organs of the body. • The principles and practices of preparing clinical specimens for histological examinations include: ○ Fixation, decalcification, processing, embedding and microtomy are covered. • Descriptions of the principles and practices used in a clinical Histology laboratory to demonstrate cellular and non-cellular elements using special stain techniques.	Course Information
Microbiology		
Institution	**Outline**	**More Information**
The Michener Institute of Education at UHN	Microbiology (MI905) Topics covered include: • Commonly isolated bacterial pathogens found in the majority of clinical specimens • Basic microbiology and bacterial physiology • The theory and use of the gram stain • The correct uses of various media • Commonly isolated bacterial pathogens • Molecular Diagnostic Techniques used in the microbiology lab	Course Information

Saskatchewan Polytechnic	Microbiology Refresher (MICR-1800)
	Topics covered include:
	• Isolation, identification and antimicrobial susceptibility techniques for clinically significant microorganisms from the following body sites:
	  ○ Urinary tract
	  ○ Respiratory tract
	  ○ Gastrointestinal tract,
	  ○ Ear-eye, genital tract,
	  ○ Cardiovascular and central nervous systems,
	  ○ Skin/wound/soft tissue and deep wounds.
		Course Information

Southern Alberta Institute of Technology (SAIT)	Clinical Microbiology (MBIO 102) Topics covered include: • Areas of clinical significance studied are normal flora and the most common pathogens are isolated from the urogenital tract, respiratory tract, gastrointestinal tract,	Course Information

	eye/ear, cardiovascular and central nervous systems, and skin/wound/soft tissue sites
	• Mycology,
	• Parasitology
	• Antimicrobial susceptibility testing, including:
	  ○ The spectrum of the major drug groups and their pathophysiology,
	  ○ Commonly isolated anaerobes and their clinical significance,
	  ○ Miscellaneous uncommon pathogens.	

Transfusion Sciences		
Institution	**Outline**	**More Information**
The Michener Institute of Education at UHN	Transfusion Science (IH903) Topics covered include: • Immunology • Major blood group systems • Antibody investigation • Compatibility testing • Blood component therapy • Transfusion hazards • Quality control • Hemolytic disorders (HDN, WAIHA, CHD, DIHA)	Course Information
Saskatchewan Polytechnic	Transfusion Science Refresher (TRFS-1800) Topics covered include: • Review of blood group systems and procedures used to detect and identify antigens and antibodies. • The theory required to be able to diagnose, treat and prevent hemolytic disease of the fetus and newborn, and diagnose and treat autoimmune hemolytic anemias. • The theory needed to provide compatible products for transfusion and investigate adverse effects of transfusion.	Course Information

Current version: May 28, 2026

Approved by: CMLPSK Executive Director

Responsible for review: CMLPSK Office