
Career Map for Internationally Trained

Medical Laboratory Technologists





ACCESS TO THE MEDICAL LABORATORY TECHNOLOGY PROFESSION IN ONTARIO

This document was updated in July 2008 in collaboration with the Labour Market Integration Unit, Ontario Ministry of Citizenship and Immigration. Requirements may have changed by the time you apply. Please contact the College of Medical Laboratory Technologists of Ontario before completing your application.

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Medical laboratory technologists (MLTs) are one of the largest groups of health care professionals in Ontario. MLT professionals perform sophisticated laboratory investigations on the human body or on specimens taken from the human body. They also evaluate the technical sufficiency of the investigations and their results. The results of these tests provide important information that doctors or other health care professionals need to make decisions about their patients' health.

MLT professionals most often work in licensed laboratories, such as hospital labs, private labs, and government labs but may also work in areas such as medical research, forensics, education, community health, and industry.

There are many specialty areas in which MLTs work using their knowledge, skills, and judgement:

- **Biochemistry (Clinical Chemistry):** The measurement of chemical constituents in blood and body fluids to detect chemicals, hormones, and/or drugs.
- **Microbiology:** The study of microorganisms, including bacteria, fungi, viruses, and parasites.
- **Hematology:** The science dealing with the measurement and morphology of blood cells and blood forming tissues and with their physiology and pathology.
- **Transfusion Science:** The detection of blood types and cross matching for transfusion (also called Immunohematology or Blood Banking).
- **Histology:** The preparation and study of tissue specimens for the detection of disease.
- **Cytology:** The study of cells, their origin, structure, function, and pathology.
- **Genetics:** The study of human chromosomes, DNA, and RNA from cells of body fluids and tissues to diagnose genetic diseases. This includes Cytogenetics and Molecular Genetics.
- **Electron Microscopy:** The preparation and study of tissues using highly magnified images that capture details light microscopes cannot detect.
- **Phlebotomy:** The taking of blood from a vein.

MLTs may also work in areas such as laboratory information management (using laboratory data to improve health care outcomes), laboratory management, or point of care testing (performance of laboratory tests outside of the laboratory).

The College of Medical Laboratory Technologists of Ontario (CMLTO)

To practise as an MLT in Ontario you must register with the College of Medical Laboratory Technologists of Ontario (CMLTO). The CMLTO is responsible for regulating the medical technology profession in Ontario by ensuring that all MLTs are qualified to practise and are practising in a safe, effective, ethical, and competent manner.

The CMLTO was established in 1993 by a law called the *Regulated Health Professions Act, 1991* (RHPA). The RHPA states that anyone who wishes to practise medical laboratory technology in Ontario must be registered with the CMLTO and must then work according to the *Medical Laboratory Technology Act, 1991* and the CMLTO regulations and standards. The title Medical Laboratory Technologist and the initials MLT can only be used by a member of the CMLTO.

The CMLTO issues certificates of registration in General Medical Laboratory Technology (which includes Biochemistry, Microbiology, Hematology, Transfusion Science, Histology, and Phlebotomy), Cytotechnology, and Clinical Genetics Technology (which includes Molecular Genetics and Cytogenetics).

The Canadian Society for Medical Laboratory Science (CSMLS)

The Canadian Society for Medical Laboratory Science (CSMLS) is the national certifying body and professional association for Medical Laboratory Technologists in Canada. The CSMLS promotes and maintains the national standards of medical laboratory technology. It assesses the education, experience, and clinical practice of applicants for registration with CMLTO who have been educated outside of Canada. The assessment also includes continuing education and professional development taken by the applicant.

REGISTRATION REQUIREMENTS IN ONTARIO

In order to register as an MLT in Ontario, you must:

1. Show proof of successful completion of a medical laboratory technology program that is equivalent to a medical laboratory technology program offered at an institution accredited by the Canadian Medical Association (CMA) in Canada.
2. Show proof of reasonable fluency in English or French.
3. Show you are mentally competent to practise the profession and will practise with decency, integrity, and honesty in accordance with the law.
4. Show you can communicate effectively with and will display an appropriate attitude towards patients and colleagues.
5. Be a Canadian citizen or a permanent resident of Canada or have authorization under the *Immigration and Refugee Protection Act* (Canada) to practise medical laboratory technology.
6. Successfully complete the CSMLS National Certification Examination.
7. Satisfy one of the following educational and training requirements:
 - i. within the three years preceding the application, show active engagement in the practice of medical laboratory technology, which may include time spent as a student, or in the teaching of medical laboratory technology, that demonstrates, in the opinion of the Registration Committee, that he or she could meet the current standards of practice in Ontario; or
 - ii. within the three years preceding the application, show successful completion of a refresher course in the relevant specialties in laboratory science approved by the Registration Committee.

For details on the actual registration steps, see the *Registration Application Process* section.

Before You Immigrate to Canada

If you are planning to immigrate to Canada and work as an MLT in Ontario, learn about the profession by visiting the websites listed in the *Contact Information* section later in this document.

The CSMLS has an *Information Handbook* available at:
www.csmls.org/english/pre_assessment.htm.

It is possible to begin the Prior Learning Assessment (PLA) process before you immigrate to Canada. However, you cannot write the CSMLS National Certification Examination outside of Canada. Effective with the June 2007 examination session, non-residents of Canada will be permitted access to the certification examinations *in Canada* providing certain requirements are met. These requirements are:

- Equivalent PLA report with the CSMLS;
- Valid PLA report with the CSMLS;
- Candidate adheres to all examination deadlines and fees;
- Valid travel documents officially notarized, received by the CSMLS no less than 4 weeks prior to examination date.

The most current information is available at www.csmls.org.

REGISTRATION APPLICATION PROCESS – SIX STEP SUMMARY

Step 1 – Apply to the CSMLS for a PLA

Step 2 – PLA: English/French Fluency Test

Step 3 – PLA: Evaluation of Academic/Education Qualifications

Step 4 – PLA: CSMLS Evaluation of Past Training and Experience

Step 5 – CSMLS National Certification Examination

Step 6 – CMLTO Practising Certificate of Registration

Steps 2 through 4 in the registration process are collectively known as the Prior Learning Assessment (PLA). The PLA determines if your theoretical and practical education and your work experience are equivalent to that obtained in Canada. The PLA also confirms your fluency in English or French.

When the CSMLS has completed the evaluation, they will send you a Prior Learning Assessment report. The PLA from the CSMLS is the only PLA the CMLTO accepts.

The time it takes to complete the PLA process varies from applicant to applicant. Contact the CSMLS for information on your specific case.

Step 1 – Apply to the CSMLS

To start the process, you need to get a CSMLS assessment application. The CSMLS charges a \$25.00 non-refundable fee for an assessment application and information package sent through the mail. However, the *Information Handbook Prior Learning Assessment*, which includes the application form, can be downloaded free of charge from the CSMLS website at www.csmls.org/english/pre_assessment.htm

When you apply, the CSMLS will open a file. All transcripts, letters, course content, and other documentation must be completed and submitted to the CSMLS before this file can be assessed. Failure to provide necessary documents will delay the CSMLS evaluation performed in *Step 4*. Your file will be held open for a period of twelve months. Reapplication will be required after that time.

The application fee (which includes the CSMLS evaluation in *Step 4*) is \$425.00 and is non-refundable. This fee is taken as soon as the application is received by the CSMLS.

Step 2 – PLA: English/French Fluency Test

If your education in medical laboratory technology was in English or French, you can skip to *Step 3*. Otherwise, you are required to complete an assessment of English or French fluency. Requirements are outlined in the chart below.

Option	Fluency Test	Minimum Score	TSE-P Test Required
1	TOEFL Paper-based	580	Yes, minimum score 50*
2	TOEFL Computer-based	230	Yes, minimum score 50*
3	TOEFL Internet-based (iBT) <ul style="list-style-type: none">• Reading• Writing• Listening• Speaking	90 (total) <ul style="list-style-type: none">• 21• 21• 21• 24	Not required because the iBT includes a speaking part
4	CanTEST	Band Level 4 Required on all skills, e.g. reading, writing, listening and speaking	Not required because the CanTEST includes a speaking part
5	IELTS – A or IELTS – P	Level 7.0 required on all skills, e.g. reading, writing, listening, speaking	Not required because the IELTS includes a speaking part.

*The Test of Spoken English – Professional (TSE-P) is only available in countries where the TOEFL Internet-based test is not available. The TSE-P will be available as a stand-alone test until TOEFL iBT is available worldwide.

Your score report must be sent to CSMLS directly from the testing organization. Be sure to inform the organization that you want a report sent to the CSMLS.

For information on where and when you can write an English/French Fluency test, contact the relevant organization listed in the *Contact Information* section later in this document.

Note – The CSMLS has implemented a new two-stage language proficiency standard effective July 1, 2008. Internationally educated medical laboratory technologists can now apply for a PLA at Canadian Language Benchmark level 6 (CLB 6). The former policy required CLB 8. A final score of CLB 8 will still be required to establish eligibility to write the national certification examination. For further details, go to the CSMLS website at www.csmls.org.

Step 3 – PLA: Evaluation of Academic/Education Qualifications

As an MLT educated outside Ontario, you must have your education assessed for equivalency through a comprehensive report. A list of accredited programs can be found on the CMLTO website under the *Registration/Courses and Programs* section.

The equivalency evaluation process is performed by two organizations:

- International Credential Evaluation Services (ICES);
- World Education Services (WES).

You must contact ICES or WES yourself and obtain their assessment package.

You can download or complete the form for ICES online at: www.bcit.ca/ices. Or you can request the package by mail. See the *Contact Information* section later in this document.

You can download or complete the form for WES at www.wes.org/ca. Or you can request the package by mail. See the *Contact Information* section later in this document.

Both organizations will require information about all secondary schools, colleges, universities, and other educational institutions you attended and the credentials you completed or were working toward. Examples of credentials include high school diplomas, bachelor and master degrees, college diplomas, and so on. Each credential may have a number of educational documents related to it, such as your academic records and your degree or diploma certificates.

Both organizations require original transcripts submitted directly from the college or university. All original documents will be returned to you. Copies will be kept on file.

If your documents are not in English or French, notarized translations will be needed, completed by a Canadian-certified translator, along with the original documents. For information on certified translation services, please contact one of the organizations listed in the *Contact Information* section.

Since the CSMLS requires the same documents and translations, ask the respective organizations to send transcripts to CSMLS at the same time. See *Step 4*.

If ICES or WES needs more information to complete your evaluation, one of their representatives will write or telephone you.

The ICES application form will ask what type of evaluation you need. Because the CSMLS requires a Comprehensive Evaluation Report, select this option on the application form. The fee for a Comprehensive Evaluation Report is \$225.00.

The application form will also ask if you need an additional copy of the report. Select this option and fill in the address for CSMLS found in the *Contact Information* section. The fee for an additional copy is \$10.00.

The WES application form will ask what type of evaluation you need. The CSMLS requires a “Course by Course” evaluation report and the report must also state the language of instruction for all studies.

Note: For the most current requirements for ICES or WES go to the CSMLS website at www.csmls.org/english/pre_assessment.htm.

Step 4 – PLA: CSMLS Evaluation of Past Training and Experience

The CSMLS requires the same original documentation and notarized translations you sent to ICES or WES in the previous step. As mentioned earlier, ask the respective organizations to send transcripts to both ICES or WES and CSMLS. Original materials sent by you will be returned. Materials sent directly from an institution will be retained by the CSMLS.

If applicable, the CSMLS also needs the results of your English/French Fluency test as described in *Step 2*.

If you have obtained a certificate of qualification in medical laboratory technology in another country, this document should be in your CSMLS file. Please send either a notarized copy of the certificate or a letter directly from the certifying body giving details of your certification and status.

To evaluate your work experience, the CSMLS requires proof of experience. Ask the Director or Technical Supervisor of your laboratory to document your experience with a detailed outline of duties and responsibilities as well as information on the scope and volume of testing performed by you. This too must

be submitted directly to the CSMLS. You should ask for this information to be sent to you as well.

You must also fill out and submit the *Personal Competency Rating Booklet* for your discipline. You can download this booklet from www.csmls.org/english/pre_assessment.htm.

At this point you must provide proof of permanent resident status in Canada. Please send an official notarized confirmation to the CSMLS.

Note: The PLA report is only valid for a period of up to two years.

You can add information to your file after the assessment has been completed, but only for 90 days. To do so, you must submit a supplemental documentation fee of \$50.00 and indicate which documents should be further assessed. A revised PLA report will be sent within 30 days.

Step 5 – CSMLS National Certification Examination

You cannot write the CSMLS examination outside of Canada.

CSMLS examinations are offered in February, June, and October each year. You must apply for the examination three months ahead of time.

After the CSMLS issues a PLA report that confirms you have the appropriate education, experience and fluency, you can apply to write the CSMLS examination.

You must complete the CSMLS examination application form and send it, along with the CSMLS examination fee to the CSMLS.

Exam Description

The National Certification Examination for General Medical Laboratory Technology is one paper, split into Paper A and Paper B. Both papers have multiple-choice questions. It takes a total of 5 ½ hours to complete, and is written in a one-day period. The test schedule includes a one-hour break for lunch.

Exam Preparation

To obtain an *Examination Information Booklet* from the CSMLS, please visit their website. The booklet describes the exam and contains sample question and answer sheets.

Step 6 – CMLTO Practising Certificate of Registration

When you pass the CSMLS examination, you are eligible to apply to the CMLTO for a Practising certificate of registration.

To apply, visit the CMLTO website and download the Application Assessment Form and Instructions at www.cmlto.com/Registration/FactSheetsandForms.

To obtain registration, you will need to provide proof of one of the following educational and training requirements:

- i. within the three years preceding the application, show active engagement in the practice of medical laboratory technology, which may include time spent as a student, or in the teaching of medical laboratory technology, that demonstrates, in the opinion of the Registration Committee, that you could meet the current standards of practice in Ontario; or
- ii. within the three years preceding the application, show successful completion of a refresher course in the relevant specialties in laboratory science approved by the Registration Committee.

For more detailed information about active engagement or refresher courses, visit the CMLTO website at www.cmlto.com/registration/refresher_courses.

MLT BRIDGING PROGRAMS

Two organizations have set up programs that can help landed immigrants (who have a PLA that is equivalent to a Canadian education) become certified and enter the health care workforce in Ontario.

- The Michener Institute offers the program Access & Options.
- Mohawk College offers the program Medical Laboratory Technology for Internationally Educated Technologists.

For more information, contact the institutions directly (see *Contact Information* in this document).

LABOUR MARKET INFORMATION

MLT professionals are involved in many major innovations taking place in health care today. Advancements in laboratory technology, medical knowledge, and science are quickly evolving.

Currently there are over 7,600 MLTs registered with the CMLTO.

According to 2007 registration statistics, hospital laboratories employ 67% of MLTs and community (private) laboratories employ 13%.

The average starting salary for an MLT is approximately 40,000 Canadian dollars per year.

More job openings exist than there are qualified people to fill them. Demand for MLTs is increasing because:

- Canada's growing and aging population requires more health services.

- New technologies are improving the ability to diagnose disease.
- Canadians now have health care insurance that covers more services.

Note: Registration with the CMLTO does not guarantee employment as an MLT. The CMLTO does not have information on specific employment opportunities. Some entry-level positions may be contract or part-time.

Future Employment Outlook

Work prospects continue to be highly rated because:

- New jobs will likely be created at a rate significantly above average due to ongoing trends such as a growing and aging population.
- Demand will also likely occur as new tests are developed and the volume of laboratory tests increases.
- The number of job openings will likely be greater than the number of recent graduates and immigrants working in the field.

Ontario Retirement Predictions

A report released in April 2008 by the CSMLS estimates that over 50% of Canada’s medical laboratory technologists will be eligible to retire by the year 2016.

Time Frame	Total Number of eligible retirements	Number per year	% of total work force
Now – 2005	742	158	11.2 %
2006-2010	1062	212	16.0 %
2011-2015	1085	219	16.5 %

Ontario Retirement Predictions – based on average age of certification at 20 and retirement at 55

For more information on labour market conditions see Ontario Job Futures on the Human Resources and Skills Development Canada (HRSDC) website. In Ontario, this information is available at public libraries or HRSDC Employment Resource Centres in your community. See the *Contact Information* section.



FEES AND COSTS (IN CANADIAN DOLLARS)

Payments made to CMLTO can be in the form of cheques, money orders, and credit cards. Cheques and money orders should be made payable to CMLTO. Please note the CMLTO application fee is non-refundable. Post-dated cheques are not accepted.

The following table lists predictable costs and fees.

Description	Fee
ICES Assessment Fee (Comprehensive Evaluation Report)	\$225.00
Extra copy of ICES Report for CSMLS	\$10.00
WES Assessment Fee (Course by Course Evaluation Report, which must state language(s) of instruction for all studies)	\$200.00
Extra copy WES Report for CSMLS	\$20.00
CSMLS assessment application and information package sent through the mail (download is free)	\$25.00
Translation Fees	Varies
CSMLS Prior Learning Assessment Fee (evaluation of past training and experience)	\$425.00
Language Assessment / Test Cost	Varies
CMLTO Application Assessment Fee	\$150.00 + GST = \$157.50
CMLTO Annual Registration Fee	\$250.00 + GST = \$262.50
CSMLS Examination Fee (member of CSMLS)	General Exam: \$450.00 Genetics or Cytology: \$675.00
CSMLS Examination Fee (non-member of CSMLS)	General Exam: \$600.00 Genetics or Cytology: \$900.00
CSMLS Examination Fee (non-resident of Canada – writing examination in Canada)	General Exam: \$1350.00 Genetics or Cytology: \$1800.00

Note: Fees in this chart are accurate as of July 2008. Fees are subject to change. Contact the organization for current fees.

CONTACT INFORMATION

For more information on registration requirements in Ontario:

College of Medical Laboratory Technologists of Ontario (CMLTO)
(Regulatory Body - Not a School)
36 Toronto Street, Suite 950
Toronto, ON M5C 2C5
Tel: 416 861-9605 or
1-800-323-9672 ext. 221 or 226
Fax: 416 861-0934
E-mail: mail@cmlto.com
www.cmlto.com

For more information on academic evaluation:

International Credential Evaluation Services (ICES)
3700 Willingdon Avenue
Burnaby, BC V5G 3H2
Tel: (604) 432-8800
Fax: (604) 435-7033
Email: icesinfo@bcit.ca
www.bcit.ca/ices

World Education Services (WES)
45 Charles Street East, Suite 700
Toronto, ON M4Y 1S2
Tel: (416) 972-0070 or 1-866-343-0070
Fax: (416) 972-9004
Email: inquiryca@wes.org
www.wes.org/ca

For TOEFL English language proficiency testing:

English Testing Services
P.O. Box 6151
Princeton, NJ 08541
USA
Tel: (609) 771-7100
Fax: (609) 771-7500
E-mail: toefl@ets.org
www.ets.org

For more information on the Canadian professional association as well as the Prior Learning Assessment (PLA):

Canadian Society for Medical Laboratory Science (CSMLS)
PO Box 2830 LCD1
33 Wellington Street North
Hamilton, Ontario L8N 3N8
Tel: (905) 528-8642 or
1-800-263-8277
E-mail (to check whether documents were received by CSMLS):
pla@csmls.org
www.csmls.org

For more information on the Ontario professional association:

Ontario Society of Medical Technologists (OSMT)
234 Eglinton Avenue East
Suite 402
Toronto, Ontario M4P 1K5
Tel: 416 485-6768 or
1-800-461-6768
Fax: 416 485-7660
Email: osmt@osmt.org
Web: www.osmt.org

For CanTEST English/French language proficiency testing:

Second Language Institute
600 King Edward Avenue
Room 114
Ottawa, Ontario K1N 6N5
Tel: (613) 562-5743
Fax: (613) 562-5126
E-mail: cantest@uottawa.ca
www.cantest.uottawa.ca



For information on MLT Programs:

St. Lawrence College

MLT Program
PO Box 6000, Station Main
Kingston, Ontario K7L 5A6
Tel: (613) 544-5532
Fax: (613)-545-3923
E-mail: Liaison@SL.ON.CA
www.sl.on.ca

St. Clair College

MLT Program
2000 Talbot Road West
Windsor, Ontario N9A 6S4
Tel: (519) 972-2727 or 1-800-387-0524
E-mail: info@stclaircollege.ca
www.stclaircollege.ca

Cambrian College

MLT Program
1400 Barrydowne Rd
Sudbury, Ontario P3A 3V8
Tel: (705) 566-8101 or 1-800-461-7145
E-mail: info@cambrianc.on.ca
www.cambrianc.on.ca

The Michener Institute for Applied Health Sciences

MLT Program
(Michener also has a Diagnostic Cytology Program and a Genetics Technology Program)
222 St. Patrick Street
Toronto, Ontario M5T 1V4
Tel: (416) 596-3101 or 1-800-387-9066
Fax: (416) 596-3168
Email: info@michener.ca
www.michener.ca

University of Ontario Institute of Technology

MLT Program
2000 Simcoe Street
Oshawa, ON L1H 7L1
Tel. 1-866-844-8648 (toll-free)
www.uoit.ca

For information on where and how to get help with settlement in Ontario:

Ontario Council of Agencies Serving Immigrants (OCASI)
110 Eglinton Avenue West, Suite 200
Toronto, Ontario M4R 1A3
Tel: 416 322-4950
E-mail: generalmail@ocasi.org
www.settlement.org

For a government contact about accessing professions and trades in Ontario:

Government of Ontario
Labour Market Integration Unit
Ministry of Citizenship and Immigration
400 University Ave. 3rd Floor
Toronto, Ontario M7A 2R9
Tel: 416 326-9714
Fax: 416 326-6265
E-mail: aptinfo@mci.gov.on.ca
www.Citizenship.gov.on.ca/english/working

Government of Ontario
Ministry of Health and Long-Term Care
Suite M1-57, Macdonald Block
900 Bay Street, Toronto, ON M7A 1R3
www.healthforceontario.ca
Email: info@healthforceontario.ca

For information on labour market trends in Canada:

Workplace Information Directorate
Human Resources and Skills Development Canada (HRSDC)
Ottawa, Canada KIA 0J2
Tel: 1-800-567-6866
www.hrsdc.gc.ca or www.rhdcc.gc.ca



For information on MLT Bridging Programs:

The Michener Institute Toronto
Access & Options
Tel: (416) 596-3154
E-mail: access@michener.ca
www.michener.ca/access

Mohawk College, Hamilton
Medical Laboratory Technology for
Internationally Educated Technologists
Tel: (905) 540-4247
www.mohawkcollege.ca

For information on certified translation services:

Canadian Translators, Terminologists and Interpreters Council (CTTIC)
1 Nicholas, Street Suite 1202
Ottawa, Ontario K1N 7B7
Tel: (613) 562-0379
Fax: (613) 241-4098
E-mail: info@cttic.org
<http://cttic.org>

Association of Translators and Interpreters of Ontario (ATIO)
1 Nicholas Street, Suite 1202
Ottawa, Ontario K1N 7B7
Tel: (613) 241-2846 or 1-800-234-5030
Fax: (613) 241-4098
E-mail: info@atio.on.ca
www.atio.on.ca

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REGISTRATION/ADMISSION PROCESS

