Combined Medical Laboratory and X-ray Technician/Technologist (CLXT)

Overview	This is an emerging occupation. Combined Medical Laboratory and X-ray Technologists (CLXT) performs various diagnostic and prognostic laboratory tests and X-rays as advised by doctors. They collect various specimens of the body including blood, body fluids, body tissues, and other samples followed by processing, testing, and reporting the results. Procedures they perform include hematology, coagulation, urinalysis, clinical chemistry, and point-of-care testing (such as glucose meter readings. They also explain x-ray procedures to patients and conduct them by proper positioning of the patients and functioning of the equipment for x-ray exams. They need to identify parts of the body in diagnostic images accurately. They also perform electrocardiograms (ECGs), check if ECG tracings are technically accurate. They also need to identify critical ECG, x-ray and lab results. They operate various delicate, and hi-tech equipment such as light microscopes, advanced analyzing devices, X-ray, ECG machines, and computers to test the samples. CLXTs may work in various settings such as hospital/clinic laboratories, blood banks, research laboratories of hospitals, universities and colleges.
NOC Code	Medical laboratory technologists (3211)
Alias Job Titles	Advanced registered technologist - medical laboratory; Autopsy technologist - medical laboratory; Biochemistry technologist - medical laboratory; Blood bank technologist; Charge technologist - medical laboratory; Clinical immunology technologist; Clinical laboratory technologist; Combined laboratory and x-ray technologist; Cytogenetics technologist - medical laboratory; Cytology technologist; Cytotechnologist - medical laboratory; Electron microscopy technologist - medical laboratory; Hematology technologist - medical laboratory; Histology technologist; Histology technologist - medical laboratory; Histopathology technologist; Histotechnologist - medical laboratory; Immunohematology technologist; Immunohematology technologist - medical laboratory; Immunology technologist - medical laboratory; In-charge technologist - autopsy services; Medical laboratory supervisor; Medical laboratory technical supervisor;

	Medical laboratory technologist - anatomical pathology; Medical technologist; Medical technologist - medical laboratory; Medical technologists supervisor; Microbiology technologist - medical laboratory; Registered medical technologist; Registered technologist - medical; Serology technologist; Tissue technologist - medical laboratory;
Qualifications Required	A 2-2.5 years post-secondary diploma program on combined medical laboratory and x-ray technology available in many colleges across Canada. As this is an emerging occupation only available in a handful of colleges. For examples: NAIT, Saskatchewan Polytechnic
Salary Range	<table><tr><td>Average hourly</td><td>Range hourly</td><td>Average yearly</td><td>Range yearly</td></tr><tr><td>$44.75</td><td>$33.17 - $47.55</td><td>$87,263</td><td>$64,682 - $92,713</td></tr></table>
Job Demand	Medium Employment outlook is mostly good across most provinces. More information is available here.
Growth Opportunity	Depending on the work settings i.e., private laboratory, hospital, community and public health clinic, institutional research labs, biotechnology/ pharmaceutical companies, management positions are usually achievable. Some CLXTs go into teaching and training and become instructors in institutions, and others go to research. However, for whom licensing for MLTs is difficult they have some alternative options such as Food Science Technologist, Health Information Management, Bio/chemical technologist in industries and research labs etc. More information is available here.
Years' Experience Required	None. Requires a 2-year diploma program certificate from an accredited institution
Training Options (if available)	Programs available at across countries. List of accredited programs can be found here.
Personal Qualities	Good communication skills; leadership; time management; medical terminology knowledge; Interest to spend long time in lab settings; ability to work in stressful situations at times; very diligent and careful; reasonable physical strength (to move patients) and stamina; must be detail oriented and

	able to follow strict procedures; must be able to work both independently and as part of a team; should have good interpersonal skills.
Notes/Other Information	CLXTs may need to work long time sitting or standing. They are required to be diligent and often need prolonged visual focus and repetitive motions. There is risk of being exposed to strong chemicals, biological hazards, infectious diseases and the potential for needle prick injuries. They need to be extremely cautious and careful to follow laboratory safety procedures to be safe from contracting infection, and ensure the safety of patients and co-workers, laboratory technologists practise safe work procedures. CLXTs may work full-time or part-time hours or on a call-in (casual) basis. Some employers may require training in CPR and the use of automated external defibrillators (AEDs).
Steps towards capacity building to become competitive for this job	1. Get admitted into diploma program for combined medical laboratory and x-ray technology in an accredited college in Canada. The admission into some colleges maybe competitive and require admission tests/interview and/or prerequisite course. 2. Complete a two to three-year program in medical laboratory technology with practicum 3. Become certified by the Canadian Society of Combined Laboratory and X-ray Technologist and provincial regulatory body such as Alberta College of Combined Laboratory and X-ray Technologists 4. Getting admission into the diploma program may be challenging as they are highly competitive. However, taking some open courses related to laboratory technology may facilitate the admission. For example, some such courses are available in NAIT and they give an edge to those applicants who completed some of those courses already.
References and resources	i. Alberta Learning Information Service ii. Job Bank Canada iii. National Occupation Classification ESDC iv. Neuvoo v. Indeed