

Job Class Profile: Laboratory Technologist IV**Pay Level: LX-35 Point Band: 962-996**

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	6	5	3	8	6	6	5	4	6	
Points	280	83	19	38	180	130	103	86	64	983

JOB SUMMARY

The Laboratory Technologist IV performs administrative and supervisory activities in a laboratory/division overseeing Laboratory Technologist III's performing advanced/highly specialized tests and procedures relating to cytology, genetics, or pathology requiring an advanced level of training.

Key and Periodic Activities

- Provides leadership and direction to Laboratory Technologists III's working in Cytology, Genetics, or Pathology Laboratories. Specifically, develops schedules, assigns, coordinates, monitors workflow, troubleshoots the work of staff, orientates new staff, and performs staffing functions including providing input into performance appraisals.
- Provides technical expertise and direction related to laboratory practices, procedures, and reporting of results; reviews and/or rescreens abnormal and problematic slides, verifies reports of technical staff; discusses tests and findings with medical and clinical personnel, provides interpretative guidance on the findings, and consults with physicians regarding abnormal cases.
- Researches new techniques, methodologies, and current trends in testing; writes Standard Operating Procedures (SOP) for workflow processes; develops policies, evaluates, and implements new procedures, equipment, methodologies, and instrumentation.
- Facilitates, maintains, and monitors, reviews, documents, and implements quality assurance activities; and performs daily audits of reports, reports occurrences, and near misses. Addresses technical and staining problems and completes corrective action reports.
- Enters results of tests in computerized electronic records.
- Monitors inventory levels and orders supplies and reagents as necessary.
- Attends, chairs, or facilitates departmental meetings and represents the department on various communities.
- Acts as a liaison between technologists, physicians, and management on day-to-day clinical and administrative activities.
- Performs advanced (specialized) procedures, tests, studies, etc., and reports results as applicable.
- This class may perform complex testing seen in the Laboratory Technologist III class, examples:

Key and Periodic Activities

- Locates and assesses the quality of metaphase cells (microscopically), and digitally captures the images of the metaphases for analysis and for the diagnosis of chromosomal abnormalities. Performs metaphase chromosome preparations, karyotypes, special staining of chromosomes, Fluorescent In Situ Hybridization (FISH) studies, and molecular analysis of Deoxyribonucleic Acid I Ribonucleic Acid (DNA/RNA) to assist the physicians in diagnosis, treatment and monitoring and prevention of diseases.
 - Microscopically examines and interprets gynecological and non-gynecological cytology specimens to determine the presence or absence of pre/cancerous conditions.
 - Performs grossing of surgical specimens, examination of tissues, dissects organs, interprets normal anatomical variation from pathological processes/diseases, adjusts dissection techniques based on the pathology, formulates gross differential diagnosis, and dictates gross description. Performs/assist pathologist with post mortems and collects biological specimens such as bone marrow toxicological material and fine needle aspirates.
- Prepares and maintains teaching cases for staff and medical students; coordinates continuing education, training, and in-services of technologists, and participates in delivering and coordinating proficiency testing.
 - Coordinates health and safety practices including maintenance of equipment.
 - Prepares various reports (i.e. workload measurement, utilization, and test statistics)

SKILL

Knowledge

General and Specific Knowledge:

- Laboratory methodologies, trends, and standards.
- Instrumentation and testing regulations.
- Operation and maintenance of diagnostic equipment and instruments.
- Laboratory and safety guidelines and existing legislation.
- Quality Control and Assurance.
- Workplace Hazard Materials Identification System (WHMIS).
- Research methods.
- Anatomy and medical terminology.
- Laboratory Information Systems.
- Adult Learning Principles.

Formal Education and/or Certification(s):

Minimum: Graduation from an accredited program with a 3 year Diploma in Medical Laboratory Technology or Undergraduate Degree (Science or Medical Laboratory) supplemented by an advanced diploma and/or training between 1 – 2 years in duration in a specialized area (Clinical Genetics, Cytology, or Pathology Assistant); registration as a General Registered Technologist (R.T.) or subject (RT) with the Canadian Society of Medical Laboratory Sciences (CSMLS), and

registration in specialty area or as a subject RT in the specialty area.

Years of Experience:

Minimum: 4–5 years' experience with particular experience in the specialty area.

Competencies:

- Ability to repair and calibrate machinery.
- Analytical and problem solving skills.
- Leadership and team building.
- Oral and written communication skills.
- Computer skills.
- Observation skills.

Interpersonal Skills

- A range of interpersonal skills are used to perform activities such as listening, asking questions, gaining the cooperation of others to complete work, address issues and/or solve problems, providing direction and communicating with staff regarding activities, tests, updates on procedures and results, equipment problems, and to promote the activities of the laboratory, providing advice, routine and complex information to medical personnel, instructing/teaching/training staff and students, providing expert advice, guidance, and counselling to staff, and members of the healthcare team, resolving conflicts with staff and dealing with upset/angry people, and facilitating meetings or making formal presentations to groups of people including presentation of cases during clinical rounds, communicating with suppliers and contractors for troubleshooting technical equipment, quality control issues, or in the purchasing and ordering of supplies and reagents.
- Communication occur with employees within the immediate work area, department, and outside the organization, staff, physicians, students, professional advisors, and manager, suppliers, sales representative, internal executives and professional associations, and less frequently with external executives and government departments.
- The most significant contacts are with the manager or physicians to communicate day to day activities, and to receive guidance and direction on laboratory work, with healthcare professionals to discuss laboratory tests/procedures; and with laboratory staff to review and provide interpretation of tests results, to discuss staffing, and laboratory activities.

EFFORT

Physical Effort

- Work demands occasionally require the exertion of physical effort resulting in considerable fatigue requiring periods of rest.
- When performing laboratory technical work there is constant lifting or moving of objects less than 10 lbs (i.e. specimens, slides, supplies, etc.), and occasionally objects up to 25 lbs (i.e. supplies, reagents, specimens, solutions, and equipment), and in some cases although very limited over 50 lbs (i.e. specimen containers, and bodies during autopsy).
- Depending on laboratory technical activity being performed, there is constant standing and sometime for extended periods to dissect specimens, view specimens through a microscope,

enter results into a computer), or sitting on a workbench for extended periods requiring constant repetitive movement to dissect specimens, use an analyzer or view specimens through a microscope, examine specimens, record results, or to enter results of tests or process reports on the computer. Regularly there is a requirement to walk throughout the department to consult with coworkers, physicians, retrieve supplies, etc. There can be constant bending or stretching and working in awkward positions when performing autopsies, grossing activities, looking into a microscope or other types of tests/procedures.

- When performing some activities, there can constantly be a requirement to use fine finger and precision work, and hand tools (i.e. scalpels, forceps, scissors, microscope, etc.), that sometimes require the use of gross motor skills, accurate control and steadiness to cut specimens, prepare samples, use pipettes, and to manipulate microscope lenses, or to troubleshoot equipment.

Concentration

- **Visual** concentration is required to look under a microscope at specimens, slides, and samples to interpret results or perform certain procedures, to see abnormalities in specimens sometimes requiring a magnifying device, to check reports and samples on monitors or computer screens for accuracy and quality, to read digital thermometers, barcode labels, to check requisitions on samples, to collect samples, to match specimens with slides, label specimens, to prepare mixtures and solutions, to prepare slides and to document information.
- **Auditory** concentration is required to communicate and give information including recording and listening to playback of gross dissection reports, to listen for alarms on pumps, centrifuges, staining machines, cover slips, timers, or alerts from equipment, and to listen or talk on the telephone.
- Other sensory demands include **touch** to check controls on the microscope, feel specimens for texture in order to describe them (i.e. smooth, rubbery, soft, etc.), to perform procedures such as dilutions, coverslips of glass slides, special staining, etc. As technical work includes dealing with various chemicals (i.e. ethanol, acetone, and formaldehyde) there is a requirement for using **smell** in order to detect possible harmful situations and to detect necrosis or infection.
- **Repetitive tasks that require alertness** include screening, correlation and validation of tests results, checking controls on tests, patient and specimen identification, performing similar tests and procedures, and using similar instruments. A **higher than normal level of attentiveness or alertness for the safety of others** is required when working with sharp instruments, when handling multiple samples, or similar specimens to prevent mix-up, when working with infectious substances, chemicals and biohazard waste, and when reviewing test analysis for accuracy of results.
- There is a **lack of control over the pace of work** when there are staff shortages, instrument or equipment malfunctions, emergencies, when there are an unpredictable number of specimens that are received, or difficult cases to evaluate and interpret, or requirements to attend unscheduled meetings. There are **time pressures** due to the workload and the turn around time requirements to complete tests and deadlines in completing tasks and projects. Other **deadlines** involve completion of management and statistical reports. There **are interruptions** from telephone calls, from staff requesting diagnostic opinions, other information, or testing, and to troubleshoot the day-to-day activities/requests.
- **Eye/hand coordination** is required to perform laboratory tests/procedures (i.e. setting up an

assay, precision pipetting, holding minute pieces of tissue with tweezers, to manipulate or coverslip glass slides, etc.), view specimens under a microscope, manipulation of small glass tubes, and to type on the computer keyboard.

- **Exact results and precision** is required when performing procedures/tests, interpreting or making comparisons of chromosomes, dissecting specimens in order to capture pathology within very fine margins, interpreting lesions on slides in order to provide accurate results of tests, and when monitoring quality control activities. Exact results are also required when giving direction and advice to staff and when developing operational and statistical reports.

Complexity

- Work typically involves task that are quite different from technical laboratory work to administration and operational activities.
- Complexity across the tasks varies. Some tasks are repetitive and well defined, requiring the use of similar skills and knowledge while others require a broad range of skills and a diversity of knowledge. Tasks may have a limited number of guidelines available to assist in resolution. Problems can be simple where a limited number of solutions exist, and they can be addressed by following procedures and/or guidelines. Other times there are problems with a limited opportunity for standard resolution as they may be technical and may be unique and have policy significance. At times tasks require creative problem definition, analysis, and solution development that are resolved in a team setting.
- Typical challenges/problems are related to decisions being made regarding interpretation and handling of tests and complex specimens (i.e. being able to recognize nuances that lead to different results), problems with procedures, tests, and samples and having to troubleshoot those issues. Other challenges are related to staffing, technical, and day-to-day operational issues.
- Challenges tend to be solved through discussion with the manager, physicians, other technologists, and review of policies or operational manuals, national guidelines, standards, practices, textbooks, journal articles, internet, and external suppliers/vendors are available to assist with problem solving.

RESPONSIBILITY

Accountability and Decision-Making

- Laboratory tasks are highly monitored and controlled through documentation, checks and balances, quality control, indicator, monitoring, and compliance activities, and occurrence reporting.
- Some activities are performed independently within the laboratory and others are completed collaboratively with a physician or the manager. Work requires being accountable for the management of professional and ethical handling of patient tissues, specimens, and information.
- Without formal approval decisions can be made related to the purchasing of supplies, reagents, and small scale equipment; staffing such as granting leave, assigning work, scheduling staff and organizing staff meetings; writing SOP's and reviewing procedures and policies, answering and providing information to staff regarding procedures or policies, etc., and disseminating information, policies, and processes to staff. Other decisions that can be made without formal approval are related to the interpretation of tests, priority of work, testing practices/procedures

such as triaging and grossing specimens, and signing off on negative test results.

- Formal approval is required to make some changes to policies and procedures, to purchase some equipment and supplies, and approval for overtime. Due to the nature of the work and its high involvement with medical staff, there may be consultation with physicians on abnormal reports.
- Discretion and judgment is exercised to interpret directions and apply guidelines when completing and interpreting tests, processes to follow for late specimen arrivals to ensure specimen integrity, providing advice regarding changes to tests, when to send specimens to external clinics for testing, and when the situation affects the safety of others. There is some discretion to exercise within predetermined limits and procedures on the interpretation of tests, performing independently predetermined procedures, completing more tests on samples if necessary, the arrangement of the workflow including handling of priority cases, changing staff assignments, and ordering supplies.
- A high degree of independent discretion and judgment is exercised when making decisions related to the analyzing and interpretation of tests and results, checking controls, and situations related to operational and staffing situations.

Impact

- Impacts generally affect the immediate work area (i.e. staff), department, in and outside the organization (i.e. physicians, clinics, etc.), and on patients. There is a significant impact felt by the patient when incorrect test results are given to health care providers; thus, impacting the diagnosis and treatment plan. Activities could either negatively or positively impact on the patients' well-being and staff morale and activities.
- Work activities impact are equipment (i.e. laboratory equipment), processes and systems (i.e. tests and procedures performed), information (i.e. wrong results of tests), material resources (i.e. inventory used), health and safety, finances (i.e. supplies required), human resources (i.e. morale of staff), and corporate image.
- Typical examples of mistakes or errors include incorrect samples collected, incorrectly describing a specimen, using incorrect patient identification, data entry, mislabelling of samples, using incorrect reagents, names on specimens, wrong sample is selected for testing, error is made in the testing phase, incorrect interpretation of results, and entering incorrect data into reports. Other examples of mistakes include incorrect payroll entries, and purchases of supplies.
- The impact of a mistake or error, depending on the circumstances, could be moderate to extreme. While errors can be extreme, due to quality control activities testing errors are mitigated. Laboratory tasks are highly monitored and controlled through documentation, checks and balances, quality control, indicator, monitoring, and compliance activities, and occurrence reporting. Depending on the error, the mistake could be detected within hours of identification or it could be much longer. Staffing and payroll errors are typically resolved within hours of detection.

Development and Leadership of Others

- Typically responsible for the direct and ongoing bargaining unit supervisory activities for a small size work group of employees (1 to 4 employees).
- Other development and leadership activities performed include providing on-the-job guidance/advice, orientation, formal/classroom-type and on the job training to staff and

students.

- Provides team and project lead activities such as expert advice and guidance to staff on complex procedures, tests, and work activities, troubleshooting issues with equipment, participates in research activities and works on various project related activities providing direction and guidance on those activities (i.e. Tissue Microarray for controls, P-16, accreditation standards, policy and procedure development, etc.).

WORKING CONDITIONS

Environmental Working Conditions

- Required to take special precautions and use safety equipment when appropriate. This includes wearing of proper footwear, gloves, masks, goggles face shields, safety glasses, and respirator when exposed to chemicals, fume hoods when pouring off reagents and setting up procedures, use proper sharps containers for disposal, be familiar and use eyewash stations, and wear laboratory coats. Due to the type of work activities, some positions.
- The potential for minor cuts, bruises, abrasions, partial and total disability is limited, if health and safety procedures are followed. Due to the nature of some work activities there may be a moderate likelihood of back, neck, and repetitive strain injuries requiring the use of ergonomic microscopes, chairs, and the requirement to take regular stretching breaks as a health and safety precaution.
- Depending on the work being performed there may be exposure to lack of privacy, unusual/distracting noise, physical hazards, health and safety risks and adverse characteristics in the work environment to varying degrees such as exposure to dirt/dust/filth, fumes (i.e. xylene, ethanol, acetone, and formaldehyde), vibration, electrical shocks, awkward and confining work stations, bodily fluids and waste, infectious diseases, sharp objects (i.e. scalpels, glass slides, and coverslips), odours, hazardous chemicals (i.e. acids, bases, radioactive material), toxic or poisonous substances, wet or slippery surfaces (i.e. water and hot wax), limited lighting and ventilation, and glare from monitors and microscopes.