



Provincial Job Description

TITLE:
**(501) Medical Laboratory Information
Systems Technologist & X-Ray Technician**

PAY BAND:
20

FOR FACILITY USE:

SUMMARY OF DUTIES:

Responsible for laboratory information system application development and support including the integration of new technologies and service goals with laboratory processes. Performs laboratory/radiology duties for the detection, prevention and management of physiological and pathological conditions.

QUALIFICATIONS:

- ◆ Medical Laboratory Technology diploma plus X-Ray portion of Combined Laboratory and X-Ray Technology diploma
- ◆ ECG/Holter monitor training, where required by the job
 - ◆ Certified by the Canadian Society for Medical Laboratory Science
 - ◆ Licensed and registered by the College of Medical Laboratory Professionals of Saskatchewan*

KNOWLEDGE, SKILLS & ABILITIES:

- ◆ Advanced knowledge of computer systems integration in a clinical environment and of interfacing LIS (Laboratory Information System) to external systems and LIS peripherals
- ◆ Advanced knowledge of laboratory operation and of the specific disciplines integrated processes, testing procedures and function of the LIS
- ◆ Advanced computer skills
- ◆ Advanced writing skills
- ◆ Advanced verbal communication skills
- ◆ Organizational skills

KNOWLEDGE, SKILLS & ABILITIES (cont'd):

- ◆ Interpersonal skills
- ◆ Decision making skills
- ◆ Analytical ability
- ◆ Problem solving skills
- ◆ Ability to work independently and as a member of a team
- ◆ Ability to instruct, collaborate and evaluate performance
- ◆ LIS Software training
- ◆ Valid driver's license, where required by the job

EXPERIENCE:

- ◆ **Previous:** Forty-eight (48) months previous discipline-related experience as a Medical Laboratory Technologist to consolidate knowledge and skills including twenty-four (24) months user experience working with the Laboratory Information System.

KEY ACTIVITIES:

A. System Development and Documentation

- ◆ Determines how LIS software will be configured and how the workflow is designed to best integrate technology with the provision of efficient and timely laboratory services.
- ◆ Develops LIS solutions that are complementary to operational needs and resource challenges by performing user requirements definition, software evaluation and selection, system configuration setup, validation, training and documentation.
- ◆ Processes system change requests while working within the software options/functionality/limitations with consideration of best practice guidelines, regulatory issues and operational needs.
- ◆ Identifies system software programming limitations to ensure optimal patient care outcomes and works with vendors to develop solutions.
- ◆ Researches, evaluates and implements additional and upgraded system functionality.
- ◆ Verifies, validates and recommends or rejects the implementation of software upgrades/changes (version, release or patch), as well as hardware and/or operation system upgrades.
- ◆ Configures tests and validates interface communications between the LIS and various laboratory analyzers and between the LIS and other computer systems.
- ◆ Participates in local and/or external projects involving the LIS.
- ◆ Develops, writes and monitors compliance of supporting procedures, policies and reports.
- ◆ Pursues customized software changes designed to improve Lab operations.
- ◆ Evaluates new equipment and technology for system suitability and use.

B. System Maintenance / Troubleshooting / Support

- ◆ Sets up and maintains security access for users of LIS applications.
- ◆ Troubleshoots and evaluates reported or recognized problems.
- ◆ Informs and advises laboratory management about any system functionality issues that will impact laboratory services.
- ◆ Performs demographic maintenance to ensure integrity of LIS database.
- ◆ Monitors LIS operation for system degradation.
- ◆ Supports the operational system needs of all the various divisions of Laboratory Medicine and the LIS needs of the end-users of Laboratory Services.
- ◆ Provides limited hardware support by evaluating hardware issues and resolving or forwarding to IT Services as required.

C. Administration / Coordination / Management Reporting

- ◆ Provides functional advice/technical expertise and problem solving suggestions related to laboratory services as supported by LIS functionality and laboratory reporting requirements.
- ◆ Provides evaluation of and/or produces documentation for laboratory processes, policies and procedures.
- ◆ Builds LIS files and manages the documentation and reporting of MIS workload statistics.
- ◆ Communicates with departments and various services or agencies regarding issues, needs, service requirements or proposed changes that may have an impact on LIS functionality.
- ◆ Coordinates system downtime events and resolutions.
- ◆ Prepares written and/or oral reports for various departments and management personnel.
- ◆ Maintains documentation records as per requirements.
- ◆ Provides information and statistical reports for business case submissions for capital expenditures for software/hardware purchase.

D. Specimen Procurement and Analysis

- ◆ Prepares patient (e.g., identification, consent, medical condition, instruction of procedure) for specimen procurement.
- ◆ Collects transports and prepares samples for in-house testing and/or dispatches to reference laboratories.
- ◆ Organizes and prioritizes specimens based on urgency of request, stability of specimen and timing protocols.
- ◆ Assesses specimen integrity and maintains stability.
- ◆ Performs laboratory testing, correlates results and evaluates the validity of those results.
- ◆ Responds to critical values, unexpected results and urgent requests according to protocols and policies.

E. Radiographic Procedures

- ◆ Prepares patient (e.g., identification, consent, medical condition, instruction of procedure) for procedures.
- ◆ Prepares patient by portering, instructing and positioning.
- ◆ Performs radiographic procedures based on CLXT scope of practice.
- ◆ Develops radiographic films, prepares files and transports to requesting physician and/or radiologist.
- ◆ Performs electrocardiograms, where required.
- ◆ May assist physicians with stress testing and Holter monitoring.

F. Quality Assurance / Quality Control

- ◆ Maintains database integrity.
- ◆ Develops, generates and validates statistical data from the LIS; including the use of SQL (Structured Query Language) and other third-party software products.
- ◆ Leads the development of validation test scripts and reviews outcomes to ensure that changes do not adversely affect laboratory operations.
- ◆ Follows preventative maintenance programs and recognizes systematic malfunctions and maintains event logs.
- ◆ Provides system development and support of Quality Assurance/Quality Control programs as required by local protocols, government regulations and laboratory licensing.
- ◆ Maintains, troubleshoots and calibrates equipment according to established standards.
- ◆ Participates in internal and external Quality Assurance/Quality Control programs as required by local protocols and government regulations.

G. Departmental Duties

- ◆ Provides input into capital purchases and budgets.
- ◆ Provides input into research of new techniques and equipment.
- ◆ Represents the department at various meetings.
- ◆ Provides occasional guidance to the primary function of others, including training.
- ◆ Prepares, communicates and files test results and reports.
- ◆ Prepares statistical reports.
- ◆ Acts as a liaison with other departments and staff.
- ◆ Provides technical expertise and problem solving.
- ◆ May supervise, schedule staff and check payroll records.
- ◆ May provide input into policies and procedures.
- ◆ May provide input for performance evaluation and performance review.

H. Education and Training

- ◆ Participates in continuing education activities in order to maintain expertise and competency in medical laboratory science, state-of-the art equipment and technology.
- ◆ Provides ongoing training, guidance and leadership to users of the LIS and inter-related systems.
- ◆ Prepares and distributes communications and training material related to LIS and inter-related systems functionality.
- ◆ Monitors system use by other staff and re-educates as required, provides feedback to managers on the competency of other staff and identifies potential issues.

I. Related Key Work Activities

- ◆ Maintains inventory and orders supplies.
- ◆ Disposes of biohazardous waste, as per departmental procedures and policies.
- ◆ May perform computer work (e.g., data entry, back up).
- ◆ Provides reception/clerical duties (e.g., telephone, faxing, photocopying, booking appointments).
- ◆ Cleans instruments and work area.

The above statements reflect the general details considered necessary to describe the principal functions of the job and shall not be construed as a detailed description of all related work assignments that may be inherent to the job.

Validating Signatures:

CUPE:

SEIU:

SGEU:

SAHO:

Date: June 12, 2019

***Updated September 22, 2025**