



Provincial Job Description

TITLE:
**(252) Laboratory Information System
Technologist**

PAY BAND:
18

FOR FACILITY USE:

SUMMARY OF DUTIES:

The Laboratory Information System Technologist is responsible for laboratory information system application development and support including the integration of new technologies and service goals with laboratory processes.

QUALIFICATIONS:

- ◆ Medical Laboratory Technology diploma
 - ◆ 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 laboratory operation and of the specific disciplines integrated processes, testing procedures and function of the LIS (Laboratory Information System).
- ◆ Advanced knowledge of computer systems integration in a clinical environment and of interfacing LIS to external systems and LIS peripherals.
- ◆ Advanced written and verbal communication, organizational, interpersonal and computer skills.
- ◆ Decision making, analytical, and 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 drivers 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 required to provide laboratory services 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 LIS 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. Quality Assurance / Quality Control

- ◆ Maintains database integrity.
- ◆ Develops, generates and validates statistical data from the LIS.
- ◆ 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.

E. 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 and end-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.

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**