



# Provincial Job Description

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

**PAY BAND:**  
**18**

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**FOR FACILITY USE:**

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**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 Saskatchewan Society of Medical Laboratory Technologists

**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, both internal and external to the Health Region.
- ◆ 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. 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.

**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.*

*Any revisions of this document recommended by the Joint Job Evaluation Maintenance Committee must be approved by the Parties.*

*Validating Signatures:*

*CUPE:*

*SEIU:*

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*SGEU:*

*SAHO:*

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*Date: May, 2006*