SYSTEMS/TECHNICAL - GRADE 9

Generic Position Overview

**Family:** Information Technology

**Branch:** Systems/Technical

**Cluster:** ITST9

**Note:** Employees of Queen's University work in a challenging and diverse environment. Queen's is committed to encouraging the development of new skills and attributes in its workforce. It is critical that staff are able to adapt to a changing work environment and to acquire new skills as these become necessary.

Depending upon the size of the department or unit and its functional activities, incumbents who fall into this category may perform all of the duties listed below or, in the case of large departments or units, may be assigned to designated specialized functions.

**Generic Position Summary:** Provide uninterrupted support to the computer systems, and be responsible for high level analysis, developing project schedules, and prioritizing system work. The functions/projects are considered integral to the operation of the university's computer environment and can have wide-ranging implications. The incumbent provides technical leadership to programming teams and supervises, guides, and provides expert knowledge to junior staff. As well, this role encompasses human resources functions such as hiring/firing and conducting performance appraisals. This position involves independent decision-making, responsibility, personal initiative, and technical proficiency.

**Primary Duties and Responsibilities:** Undertake high level analysis for the development of new systems (e.g., financial and telecommunications), identify ways of enhancing existing systems, define problem areas, develop viable solutions, determine the cost benefits of recommended solutions, develop system project schedules, and prioritize system work.

Provide continuous, uninterrupted support for the production of operational systems. Provide system design and programming expertise for large-scale systems and applications. Provide second-level user support in specific software areas for computer and network systems.

Plan and coordinate the installation and integration of new computer systems, software packages and operating system upgrades for multiple platforms. Ensure various system components accomplish defined functions and that the system will interrelate with other computer or manual systems.

Manage and maintain computer networks. Ensure back-up and recovery policies are in place and followed. Perform maintenance of hardware and
software. Maintain network routing configuration, troubleshoot problems, disaster planning and recovery. Ensure security procedures are implemented and followed. Troubleshoot networking problems.

Provide technical leadership to programming teams. Advise on the feasibility of projects using knowledge of the department or unit's policies, procedures and business operations. Define the functional requirements of projects, i.e., the scope, and the various system components both manual and automated. Responsible for formalized, continuing work direction and leadership to team members including scheduling, assignment of work and progress reviews. Ensure that outstanding operational problems are addressed on a daily basis.

Write customized software for use in research projects and teaching.

Supervise, guide, and provide expert knowledge to junior staff. Coordinate workflow, delegate duties, and carry out human resources functions such as hiring/firing and conducting performance appraisals. Train staff and ensure that unit or department stays current with new technologies. Develop and maintain standards and ensure that established policies and procedures are adhered to. Recommend changes to policy and procedures as necessary in order to adapt to new developments in the industry and changes in department functioning or organization. Carry out other administrative procedures as required such as committee work and report writing.

Write technical documentation for program maintenance and non-technical documentation for end-user support.

Undertake other duties as required in support of the unit or department.

**Required Background:** University degree in a computer science or related area and several years of experience. Demonstrated expertise or additional training may be required in specialized areas depending upon the position. Supervisory experience is required. Consideration will be given to an equivalent combination of education and experience.

Special Skills: Typical skills that *may* be required in the performance of job duties include:

Broad knowledge and experience with computing systems, particularly programming tools, techniques and other technological equipment as required. Ability to integrate technology into the workplace in order to facilitate the goals and functions of the division. Advanced knowledge of all applicable software applications. Ability to learn new technologies and assess their usefulness to users. Incumbent must possess expertise in particular areas depending upon the position, and must be able to apply this expert knowledge to program planning and information sharing as necessary.

Ability to conceptualize plans and technical solutions for dealing with an array of information system issues. Ability to assess computer needs, and implement technology-based solutions for operational problems.
High degree of technical knowledge of both administrative and academic mainframes including programming products available, database management strategies, etc. Technical expertise in all computing systems including hardware, software and operating systems.

Communication (both verbal and written) and interpersonal skills to be able to provide leadership to programming teams and others. Ability to direct individuals in a manner conducive to the smooth and efficient operation of the department.

Management skills in order to deal effectively with human resource issues i.e., coordinate workflow, delegate duties, train, and ensure staff satisfaction.

Project management skills.

Extensive understanding of department and university’s policies, procedures, and principles, and how they affect the goals and functioning of the division.

Possess judgement, tact, and foresight in order to predict trends and problems and adapt processes to optimize outcome. Adapt to changes without compromising quality of products and services.

Ability to work under pressure, time constraints and to handle/manage numerous tasks effectively.

Ability to prepare cost-analysis to show benefits to university.

Work with a "client-centred" perspective and possess customer-service instincts.

**Decision Making:** Examples of the types of decisions regularly made on the job:

Decide on modifications to on-line systems which affect users across campus.

Decide on timing for resolving systems problems. Develop timely solutions to avoid major administrative problems caused by systems failures.

Manage computer network, i.e., giving users access to certain portions.

Act as consultant to systems users and make recommendations on methods of doing work under current procedures.

Maintain the operation and integrity of systems and plan the allocation of resources to expand and enhance. Evaluate various technologies and recommend the most effective solution to the department or unit in order to facilitate communication, efficiency, and accuracy.

Plan new initiatives within the department or unit, and, upon request, technological initiatives for other departments. Determine project guidelines and time lines.
Make recommendations to Queen's faculty, staff and students regarding networking software and hardware acquisitions.

Allocate time and resources in order to ensure project completion, based on the priority of tasks on hand. Decide how work may be assigned based on the skill sets of the project team members.

Determine content of technical documents and training seminars in order to meet the needs of all users at various levels of technological familiarity.

Make human resource management decisions (e.g., hiring, firing, work flow coordination).

**Supervisory Responsibilities:** Supervisory duties may include delegation, hiring/firing, discipline, and conducting performance appraisals.

*Last update: December, 1999*