TECHNOLOGIST - GRADE 5

Generic Position Overview

Family: Natural and Applied Science

Cluster: (NAS5) Technologist

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: The incumbent prepares, performs, and records the results of experiments. May use some personal judgement in the choice of protocol and analysis of data. Incumbent may be working with hazardous materials or animals. Prepare reports, and may make use of computer software in analysis and presentation of information. Perform background research and literature searches. Maintain equipment, monitor safety, and provide guidance in appropriate use of apparatus. May perform other support duties including administrative functions and specialized support such as computer, photographic, or drafting services.

Primary Duties And Responsibilities: Use scientific method to prepare and conduct experiments and observe and record results. Follow proper protocol, ensure materials are available, set up lab equipment, check usage schedules, tabulate and record results. Prepare and analyse samples and solutions. May include use of a variety of machines and instruments such as centrifuge, scintillation counter, and spectrophotometer. May include exposure to hazardous materials or animals, including animal care and basic surgeries.

Report results of experiments in written reports or verbally at lab meetings. Maintain a log book. Use computer to analyse and organize information.

Maintain lab equipment and perform preventive maintenance procedures. Correct operational problems where possible. Encourage safety in lab and perform basic safety procedures, including proper hazardous waste and sharps disposal. Guide other users of lab with respect to the safe operation of equipment and materials.

Perform administrative procedures in support of the lab. This includes some word processing, database maintenance, scheduling, and inventory/ordering of lab supplies. Coordination of special activities for the group.
Perform background research including literature searches, and evaluate gathered results.

May provide other support services such as audio-visual, advanced computer, or photographic. Produce or revise drawings for construction, renovations, or alterations. Revise and maintain data used for planning, engineering, and maintenance. Survey for planning and recording changes.

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

Required Background: Three-year post-secondary program in a relevant field. Experience will be considered an asset. On-the-job training will provide the incumbent with specific knowledge required for the position. Some positions may require more extensive experience in a particular field, procedure, technique, or piece of equipment, such as drafting. Safety-related training will be provided on-the-job. 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:

Organizational/analytical skills and ability to coordinate workflow. Judgement may be required in applying scientific principals to obtain accurate and relevant experimental results.

Care in handling dangerous materials, operating equipment, and preparing solutions or samples. Foresight in predicting problems and preventing them from occurring where possible. Ability to handle animals may be required. This includes giving injections, performing routine surgeries, dissection, and pre/post-procedure care and treatment which meets or exceeds ethical guidelines.

Ability to work with computers and perform mathematical calculations. Some positions may require more advanced computer skills, including programming or CAD.

Possess technical/scientific communication skills (written and verbal).

Attention to detail and ability to perform careful measurements and interpret basic experimental results.

Ability to learn quickly and adapt protocols as needs change (within guidelines).

Proficiency in technical skills such as drafting as required.

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

Decide on optimal protocol and equipment to use in running an experiment,
and decide on steps to take when assigned a new project.

Determine how to deal with breakdowns and errors. Decide if problem can be resolved personally or if supervisor or equipment manufacturers should be involved.

Determine best way to correct minor methodological deviations.

Direct research inquiries to the proper person, or supply the answer if appropriate.

Allocate and organize lab space.

Prioritize time and determine most efficient use of personal resources within set of priorities outlined by supervisor.

Assist in the generation of various documents and reports, and provide input where appropriate. Participate and act as resource person in the production of more complex publications.

Determine drawing layout/arrangement and presentation.

**Supervisory Responsibilities:** May be supervisory duties in some positions. May delegate work.

*Last update: December, 1999*