POSITION DESCRIPTION FORM (PDF)

Part-time Support Staff

Instructions for Completing the PDF:

- This 'smart' form template is to be completed & submitted electronically to the HR Consultant.

- Complete each section as accurately and *succinctly* as you can in the space provided. If you have questions, contact your respective HR Consultant for assistance.

  Depending on the duration of the work assignment, you will be required to complete the Cover Page and Part 1 only **or** Parts 1 & 2 **or** Parts 1, 2 and 3.

CPT/TPT Tier I - Cover Page and Part 1 only

- Casual/temporary part-time support staff work that is temporary/transitory only and will not exceed a duration of one academic semester (4 months).

CPT/TPT Tier II - **Cover Page and Parts 1 & 2 only**

- Casual/temporary part-time support staff work that is term certain but that will be for a duration of more than one academic semester up to two academic semesters (more than 4 months up to 9 months).

RPT only - Cover Page and Parts 1, 2 & 3

- Regular part-time (RPT) support staff work that is required as part of ongoing operational needs and is considered to be long-term/permanent in nature.

POSITION DESCRIPTION FORM (PDF)

Choose an item. **Part-time Support Staff**

Position Title: Laboratory Technician

Position Number: Click here to enter text. **Pay Band: 8**

Reports To: Jennifer Andersen, Manager, CAWT

Appointment Type: Other-details at right. "Other" Hours Details: weekend and evenings may be required

Scheduled Weekly Hours (maximum 24 hours per week): 24

PDF Completed By (Manager Name): Jennifer Andersen, Manager, CAWT

Effective Date: February 2023 Last Revision: January 27, 2023

SIGNATURES

Incumbent: _____ Date: _____

(indicates incumbent has read and understood the Position Description Form details)

Supervisor: _____ Date: _____

(indicates the supervisor has authorized and assigned the duties & responsibilities in the PDF)

NOTE: Please return the original PDF to HR Operations (Michelle Bozec) as soon as it has been signed. Thank you.

PART ONE:

POSITION SUMMARY

The CAWT Laboratory technician will assist in the installation, decommission, and operation of a wide range of experiments, technologies and laboratory instruments in the Centre for Advancement of Water and Wastewater Technologies (CAWT) at the Frost Campus and remote locations.

The incumbent will conduct laboratory analyses as required for water and wastewater treatment research in an accredited lab (ISO 17025:2017) within set timelines and in adherence to established methods. They will keep detailed records and follow standard operating procedures, work instructions, and health and safety protocols, etc. as developed by the CAWT Manager, CAWT Laboratory Coordinator, and Research Scientist.

They will ensure integrity of data collected through laboratory methods and procedures and ensure it is recorded and backed up in accordance with accepted laboratory procedures. They will follow quality control (assurance) measures to ensure repeatability and data integrity. They will be responsible for maintaining and calibrating laboratory equipment and infrastructure, as well as assist in troubleshooting and repair work.

Occasionally the incumbent will be expected to provide guidance and supervision to student workers. They will ensure safe, accurate and effective use of facilities, equipment and instrumentation, and that all health and safety procedures are followed for the protection of students, staff, faculty, and visitors. They may on occasion provide training on analytical methods, lab practices, and project operations to student workers, co-ops, interns.

KEY DUTIES & RESPONSIBILITIES

Indicate as clearly as possible the significant duties and responsibilities associated with the position. Indicate the approximate percentage of time for each duty. Keep sentences short, simple and to the point. *TIP: Describe major clusters of functional work rather than detailed individual work routines and procedures.* Do not use allocations of less than 5%.

	Summary Details	Percentage %
1	Project work. Participate in partner meetings and project planning sessions to receive training related to methodologies and modification of technologies, experimental designs, and test plans to conduct bench scale, pilot or full-scale installations. Assist in the installation, execution and decommission of a range of experiments. Under the guidance of the Manager, Research Scientist, Lab Coordinator, Research Technologist or Lab Technologists adapt and modify current facilities and equipment to accommodate and integrate new techniques and projects. Assist in the operation and troubleshooting of technologies and experiments.	40%
2	Laboratory Analysis Perform analytical laboratory methods, including following standard operating procedures and work instructions, on a wide range of	40%

	Summary Details	Percentage %
	instruments based on Standard Methods and ISO 17025:2017 guidelines, and as required for an ISO accredited testing facility. Set-up, operate and maintain bench and analytical instrumentation including, but not limited to: Total Organic Carbon Analyzer, UV/Vis Spectrophotometer, Titrator, multimeters, microbiological testing equipment, incubators, heating blocks, chemical digestion equipment, respirometer, fumehoods, sewage pumps, peristaltic pumps, flow meters, temperature recording devices, environmental chambers, walk-in fridges, autosamplers, autoclaves, muffle furnace, drying oven, and other laboratory equipment. Perform accredited and non-accredited analysis of, but not limited to: pH, turbidity, dissolved oxygen, conductivity, oxidation reduction potential, alkalinity, biomethane potential, Biochemical oxygen demand (total and soluble), chemical oxygen demand (total and soluble), total and free chlorine, total and volatile suspended solids, total and total volatile solids, ammonia, total organic carbon, dissolved organic carbon, E. coli, total coliforms, fecal coliforms, heterotrophic plate counts, volatile fatty acids, and other laboratory methods. Perform data entry by required deadlines.	
3	Training Facilitate training/orientation sessions/demonstrate procedures for new student workers, placement workers, and other PT technicians. Informing them of procedures, policies and best practices. Provide day-to-day guidance for student workers and lab technicians. Train student sand Lab technicians on project operations and analytical methods. Provide tours of facilities and safety equipment.	15%
6	Other Duties As Assigned *(do not amend this section)*	5%

To calculate the relative percentage of time allocated to each cluster of key duties & responsibilities, remember to consider the total amount of hours this part-time position will normally work in a year.

For example:
An RPT position which normally works 24 hours per week for 10 months of the year would have approximately 960 annual hours (24 hrs/wk x 4 wks/month x 10 months). If this position is estimated to spend 5 hours per week completing a cluster of work associated with organizing and maintaining business files, you would allocate 20% to this function calculated as (5 hrs/wk x 4 wks/month x 10 months) divided by 960.

PART TWO:

TRAINING & TECHNICAL SKILLS

Indicate the minimum level of independent studies, formal education, internal and/or external training programs including professional and technical or apprenticeship courses necessary to fulfill the requirements of this position.

Formal Education Requirements:
Completion of a two (2) year college diploma.

Field(s) of Study:
Analytical Chemistry, Organic Chemistry, Biochemistry, Molecular Biology, Microbiology, Toxicology, or other similar science-related discipline.

Other Vocational Certifications and/or Apprenticeships:
Click here to enter text.

EXPERIENCE

Specify the minimum number of months and/or years of practical experience in any related work necessary to fulfill the requirements of this position.

Practical Work Experience:
More than one year up to three years.

Additional Skills & Abilities:
Practical, related working experience in analytical methods and with analytical instrumentation: DO probes, handheld multi-meters, titrators, biochemical oxygen demand, digesters, autoclaves (as examples). Working knowledge of analytical chemistry techniques including analysis of water and / or wastewater. Experience working on research projects or lab-based experiments, including set up, execution and decommission. Strong interpersonal, planning, time management and communication skills required. Practical experience in organizational techniques. Intermediate skills with spreadsheets and word processing.

PART THREE:

COMPLEXITY

Describe the amount and **nature of analysis**, **problem-solving** and **reasoning** required to perform the core duties of the position. Provide up to two (2) examples in the space provided below of regular duties for this position. Answer the questions listed below in the Key Considerations section.

Example #1

Task / Activity
Operation of multiple experimental testing plans (ex. Sample collection, equipment maintenance, etc.)
Description
The incumbent will be required to assist on multiple project operation tasks over a given time, each with varying needs. Examples of tasks include collecting daily to weekly samples across a variety of projects, maintaining equipment levels such as changing flow rates or increasing temperatures, making changes to system designs under the guidance of project leads (scientists, technologists, etc.). Incumbent will need to determine when each task needs to be completed and plan out in advance project tasks to ensure completion of tasks on time.

Example #2

Task / Activity
Analyze numerous water / wastewater samples for many different parameters, for multiple ongoing projects in a space of only two weeks. Calibrate and prepare reagents for analysis, determining through experimentation potential interferences that may occur according to sample types. Adjusting chemistry where necessary.
Description
The CAWT laboratory performs dozens of lab analyses, with sample numbers and analysis type varying each day. The incumbent will need to plan out in advance laboratory tasks within their daily and weekly schedule to ensure completion of assigned analysis on time, requiring focus, concentration and effort. Planning and coordinating their own schedule is critical.

Key Considerations:

With respect to the examples above and the regular duties associated with this position's core functions, please answer the following questions:

Is the work considered to be routine/non-routine?
Routine

How would you describe the complexity of the work?
Some duties are varied and complex.

Describe the business processes used by the position.
Processes are specific and related.

JUDGMENT

Describe the degree of independent judgment and problem-solving required to perform the duties of the position. Provide up to two (2) examples in the space provided below of regular duties for this position. Answer the questions listed below in the Key Considerations section.

Example #1

Task / Activity
Technology or experimental set up is not functioning as it should and needs modification. Examples include leaking tubing, build-up of organics, foaming, etc.
Description
Given the wide range of technologies and experimental set ups at the CAWT the Lab Technician will be performing work an array of systems. There will be times systems may experience issues in their operations, the lab tech needs to identify these (through routine checks assigned to them) and let the project lead staff (i.e. Research Scientist, Technologists, or Manager) now immediately.

Example #2

Task / Activity
Lab instrument is no longer working and is in need of repair or troubleshooting
Description
Lab analyses have strict quality assurance and control procedures, including the calibration of systems with the most simplistic design (i.e. pH meter, balance). There will be times a piece of instrumentation is not passing the QC checks, along with procedures on what to do in these scenarios. The Lab Technician will be responsible for identifying when a system in not performing correctly, follow the troubleshooting / calibration requirements and notify the Lab Coordinator immediately of such results.

Key Considerations:

With respect to the examples above and the regular duties associated with this position's core functions, please answer the following questions:

The work duties typically require:
Uses established analytical techniques.

In determining a solution for problems, the incumbent has discretion to:
Uses established analytical techniques.

MOTOR SKILLS

Describe the aspects of the position that require fine motor movements (delicate, intricate or precise) related to the core duties of the position. Provide up to two (2) examples in the space provided below of regular duties for this position Answer the questions listed below in the Key Considerations section.

Example #1

Task / Activity Creation of standard solutions and reagents following standard methods.
Description Creating standard methods and reagents is a requirement for numerous lab methods employed within the CAWTs ISO 17025 accredited laboratory. Once trained the incumbent will be responsible for creating specific standards and reagents. This will require precise measurements using balances, scales, and pipettes to accurately measure out various chemicals. While the time to create standards is not long, this is not something that can be rushed as the measurements need to be precise.

Example #2

Task / Activity Operation of treatment technologies
Description Research projects involve varying types of experimental equipment and treatment technologies. The incumbent will be responsible for the physical collection of samples, requiring them to open valves, use sampling equipment, set up autosamplers, etc. This may also include turning off pumps, resetting pumps, and changing out pump lines.

Key Considerations:

With respect to the examples above and the regular duties associated with this position's core functions, please answer the following questions:

When considering 'speed' of fine motor movements for this position:
Speed is a secondary consideration.

Indicate the percentage of time that is required in performing each of the tasks discussed above.

Task	% of Time
Creating / measuring standard and reagents	20
Collecting samples, changing pumps, etc.	25

PHYSICAL DEMAND

Describe the degree of **physical demand** required to perform the duties of the position. Provide up to two (2) examples in the space provided below of regular duties for this position that illustrate the type and duration of physical effort, the frequency, the strain from rapid and repetitive fine muscle movements or the use of larger muscle groups, lack of flexibility of movement, etc.

Example #1

Task / Activity Standing to perform laboratory analysis
Description Many lab analysis work requires standing. While some of these can be accommodated to a sitting position, several of them cannot and would require periods where the incumbent would be standing to perform such work.

Example #2

Task / Activity Assisting in the installation and decommission of projects
Description Treatment technologies and experimental designs can vary in weight and size. At times these can be quite physical, requiring lifting and transporting of items. Carts, pump trucks, etc. are all available for transporting heavier items but they will still need to be lifted onto those first.

Indicate the percentage of time that is required in performing each of the tasks discussed above.

Task	% of Time
Laboratory analysis (standing)	25
Installing & Decommissioning Projects	15

How would you describe the frequency of the physical demands of this position?
Occasional (part of the day)

How would you describe the nature of the physical demands of this position?
Moderate

How would you describe the physical strain on this position?
Comfortable body positions with flexibility of movement.

SENSORY DEMAND

Describe the degree of **sensory demand** required to perform the duties of the position. Provide up to two (2) examples in the space provided below of regular duties for this position that illustrate the level/degree of concentration (visual, auditory, tactile, etc.). Answer the questions listed below in the Key Considerations section.

Example #1

Task / Activity Calibrating instruments
Description Certain lab instruments require calibration prior to use, following standard protocols. This requires concentration and focus.

Example #2

Task / Activity Working on computers
Description Data entry will be a requirement for any projects and lab analysis the incumbent is involved in. This requires focus, concentration and attention to details as data is manually input and needs to be cross-checked.

Key Considerations:

With respect to the examples above and the regular duties associated with this position's core functions, please answer the following questions:

How would you describe the requirement for attention to detail in this position?
Periodic (up to 30%)

How would you describe the requirement for sensory demand in this position?
Moderate

Indicate the percentage of time that is required in performing each of the tasks discussed above.

Task	% of Time
Calibrations	5
Computer Work	10

STRAIN FROM WORK PRESSURES / DEMANDS / DEADLINES

Describe the degree of **work pressures** involved in performing the duties of the position. Provide up to two (2) examples in the space provided below of regular duties for this position that illustrate the deadlines, interruptions, distractions, multiple or conflicting demands/workloads and dealing with people in difficult situations. Answer the questions listed below in the Key Considerations section.

Example #1

Task / Activity Competing projects with sample collection and operation requirements
Description At times numerous projects may require sample collection or modifications to systems on the same day or during the same time frame (i.e. morning). Deadlines are given to the incumbent for these tasks and must be met. Incumbent needs to consider their workload when being assigned new tasks to ensure all can be met on time, and if not, they need to speak with the Lab Coordinator or Manager asap.

Example #2

Task / Activity Urgent lab analysis
Description Lab analysis is a regular and daily duty. On occasion a lab sample may need to be analyzed immediately or more urgently. While this work would typically be assigned to a Lab Technologist there may be times the incumbent is required to complete such urgent analyses. This would require them to pause what they are doing and reprioritize tasks.

Key Considerations:

With respect to the examples above and the regular duties associated with this position's core functions, please answer the following questions:

How would you describe the workflow demands this position typically faces?
Deadlines may periodically change.

How would you describe the existence of critical deadlines in this role?
Frequent critical deadlines.

How would you describe the level of interruptions this position faces?
Interruptions occur occasionally but tend to be predictable.

Indicate the predictability of the strain and percentage of time required in each task discussed above.

Task	% of Time	Predictaility*
Competing sample collections	30	UP (Usually Predictable)
Competing lab analyses	25	NP (Not Predictable)

INDEPENDENT ACTION

Describe the degree of **independent action** and **autonomy** required to perform the core duties of the position. Provide up to two (2) examples in the space provided below of regular duties for this position. Answer the questions listed below in the Key Considerations section.

Example #1

Task / Activity Sample collection
Description Collecting samples from a range of technologies is relatively routine, requiring the same and consistent processes. The incumbent will be expected to perform these tasks independently and without assistance, within set timeframes.

Example #2

Task / Activity Lab analysis
Description Once trained lab analyses are assigned each week and become part of the incumbent's weekly schedule. The incumbent will be expected to perform these tasks independently and without assistance, within set timeframes.

Key Considerations:

With respect to the examples above and the regular duties associated with this position's core functions, please answer the following questions:

What type of instruction is typically given to the incumbent?
Specific and detailed instructions provided.

What degree of supervision is typically provided to the incumbent?
Regular supervision & monitoring.

How is the work typically checked and verified?
Output is reviewed by someone else.

How frequently is the work checked?
Most processes are reviewed weekly.

Describe duties which are the incumbent's responsibility where independent action requires initiative and/or creativity and indicate how often the duties occur. Identify the typical situations or problems that are normally referred to the Manager for solution.

Developing a schedule to accommodate all tasks is a requirement of the incumbent. Each week they are assigned lab analysis along with project duties. It is expected they determine when to fit these into their schedule. If the workload is too heavy and deadlines cannot be met they are expected to consult with the Manager as soon as possible.

COMMUNICATIONS / CONTACTS

Describe the nature of contact and purpose involved in communicating information (i.e. to provide advice, explanation, to negotiate, or influence others to reach agreement, etc.), and the confidentiality of the information provided. Answer the questions listed below in the Key Considerations section.

Nature of Contact (Who)	Purpose of Contact (What)	Frequency
Lab Coordinator	Contact for all lab related issues and challenges (lab analysis, instrumentation, lab training, lab workload)	Daily
Research Scientist	Project related concerns– review / feedback on test plans, issues with systems. Provide advice, explains projects, resolves challenges related to research.	Weekly
Manager	Health and safety, training, delegates and assigns workloads, time management. Provides advice, support. Weekly one on ones.	Weekly
Lab / Research Technologists	Will provide advice and support on minor issues, including troubleshooting minor technical issues, will also help to determine if a specific challenge needs to be escalated to the manager	Daily
		Choose an item.
		Choose an item.

Key Considerations:

With respect to the examples above and the regular duties associated with this position's core functions, please answer the following questions:

Communications in this position are typically engaged for the purpose of:
Exchanging basic factual information.

What type of involvement does this position have with confidential information?
Occasionally involvement with minor disclosure implications.

RESPONSIBILITY FOR DECISIONS AND ACTIONS

Describe the type of **responsibility** that exists for the **decisions** and **actions** related to the core duties of the position. Provide up to two (2) examples in the space provided below of regular duties for this position. Answer the questions listed below in the Key Considerations section.

Example #1

Task / Activity
Requirement to complete lab analysis and project work within set timelines, reporting when issues arise immediately.
Description
Completing work on time and to the quality required is critical. Failure to do so can jeopardize client relationships and place additional burden on other CAWT staff. This may also have financial implications.

Example #2

Task / Activity
Description

Key Considerations:

With respect to the examples above and the regular duties associated with this position's core functions, please answer the following questions:

How errors are typically detected for work completed by this position?
Errors are easily and quickly detected in-process.

What is the typical scope of impact to the organization for errors in this position?
Results in significant waste and negative impacts to operational effectiveness.

WORK ENVIRONMENT

Describe the physical environment that the incumbent works in. Consideration should be given to:

- The probability or likelihood of exposure to disagreeable/hazardous elements.
- The nature of the disagreeable/hazardous element
- Length of exposure while on the job
- Travel

Complete the chart below. Answer the questions in the Key Considerations section.

Environment	% of Time
Professional office environment Yes	10
Outdoor work; seasonal conditions Yes	20
Other (please specify) Laboratories	40
Other (please specify) Project facilities (Greenhouse, ponds, wetland, Minden)	30

Key Considerations:

With respect to the nature of disagreeable/hazardous elements this position is in contact with, would you describe them as:
Moderately disagreeable

With regard to the disagreeable/hazardous elements referenced above, how often does the position encounter them?
Recurring

If this position is required to engage in business related travel, what is the frequency of the travel?
Occasional (10%-30% of their time in transit)

SUPPLEMENTAL DATA

Provide any additional information which will serve to further enhance understanding of the position.
Click here to enter text.