

Job Description

Job Title:	QNC Facility Technician and WIN Health and Safety Coordinator
Department:	Office of the Associate Provost, Resources
Reports To:	Manager, Space Planning
Jobs Reporting:	None
Salary Grade:	USG 7
Effective Date:	July 2017

Primary Purpose

Health and Safety and Technical services for research and teaching laboratories in the Quantum Nano Centre (QNC) are provided to the VP Research by the Office of the Associate Provost Resources. Reporting to the Manager, Space Planning, this position will provide technical services in support of the QNC building and its occupants.

Key Accountabilities

Support Services

- Advise and assist lab occupants (PI's, grad students, coop students) with respect to the use of shared spaces within QNC.
- Provide liaison between WIN staff and Manager, Space Planning to ensure efficient utilization of space and physical resources within QNC.
- Provide liaison between building occupants and relevant University support services. (IQC, Clean Room, Metrology, Plant Operations, Central Stores, Safety Office, Science Technical Services, Engineering Machine Shops)
- Provide logistical support and liaison between University support services and building occupants in the context of building services shutdowns, failures, and providing/facilitating emergency response.
- Provide liaison between QNC and the faculties of Science and Engineering in the context of shared resources. (RO/DI, Nitrogen, etc.)
- Assessment of infrastructure needs for both undergraduate and research laboratories
- Delivery, refill, and dispensing of liquid nitrogen dewars in QNC, Math, and potentially Science
- Facilitate the surplus of assets and disposal of e-waste.
- Skilled at general lab safety, material properties, strength of materials used, pressure and flow rates of all services supplied. Firsthand knowledge of the University sub systems, such as the purpose and functions of Plant Operations supplied services.

Technical Services

- Provide support services to Faculty and students to enable experimental aspects of their research pursuits.
- Set up laboratory equipment and instrumentation. (Including services: electrical, air, nitrogen, vacuum, ventilation, mounting, fastening, etc.)
- Provide technical support for teaching and research labs including assistance with configuration/setup and troubleshooting of equipment.
- Move, reinstall or dispose of laboratory equipment.
- Analyze nitrogen gas consumption to facilitate re-billing.

Job Description



- Monitor, document, and liaise between support vendors and the service users for the following house systems: Reverse osmosis and ASTM Electronics and semiconductor grade Deionized Water systems, house vacuum, Process cooling water (PCW), clean dry air system (CDA), Acid Waste Neutralization System, and nitrogen systems.
- Facilitate the measurement and billing of RO system to the STC building.
- Sole operator of the RO/DI water system serving the Departments of Chemistry, Biology, Earth and Environmental Sciences, physics, the Nanotechnology Engineering undergraduate laboratories in the Davis Centre, and the SHARCNET Facility.
- Track and maintain a list of building services and equipment that is integrated with the emergency power system.
- Act as a central point of contact for Plant Operations and external contractors with respect to new construction or renovations in QNC.

Health and Safety

- Responsible for monitoring training completion for new graduate students, summer students, visitors, faculty and staff, ensuring that both mandatory and job-specific safety training has been completed.
- Building evacuation coordinator for WIN, ensuring proper building coverage by appointing Fire Wardens and that evacuation procedures are followed and updated as per University policy.
- Ensure the proper decommissioning of labs is completed as occupants leave their space.
- Participation as member of QNC Joint Health and Safety Committee, and organization of regular inspections of teaching and research facilities for chemical, electrical, and other safety compliance issues, implement decisions of the committee within the building.
- Follow up routinely with lab supervisors to ensure all labs comply with Health, Safety, and Environment and Fire Evacuation procedures.
- Assists with the development of Health, Safety and Environmental procedures and records.
- Advising the WIN Executive Director and relevant departmental contacts of compliance issues.
- Identifies recurring problems, documents them and suggests solutions to these problems either independently or in consultation with the Safety Office.
- Maintains WIN health and safety boards, Fire Warden assignments and first aid requirements.
- Ensure an adequate number of faculty, staff, and graduate students are trained in First Aid response and that these individuals are properly listed and posted at First Aid stations in compliance with OHS and UW regulations.
- Ensure First Aid station inventory is restocked appropriately.
- Ensure that safety showers and eyewash stations are maintained and tested in accordance with University policy.

Required Qualifications

Education

- University degree in Chemistry or equivalent education and experience

Experience

- Experience administering Health and Safety programs in compliance with relevant provincial legislation and UW policies
- Previous experience providing mechanical design advice, and the diagnosis and repair of emerging issues at the building/lab interface level.

Job Description



- Proven ability to operate and maintain reverse osmosis and ASTM Electronics and semiconductor grade Deionized Water production systems in compliance with RO/DI standards
- A demonstrated ability to liaise between faculty, staff, students, and associated support organizations (Plant Ops, IST, vendors etc.).

Knowledge/Skills/Abilities

- A sound knowledge of the specialized equipment typically employed in science undergraduate and research laboratories.
- An understanding of the mechanical functions and building services offered in the Quantum Nano Centre.
- An understanding of the infrastructure services provided to the Quantum NanoFab Facility.
- Knowledge of UW policies and procedures involving safety issues.
- Outstanding communication skills required
- A demonstrated ability to interact with faculty, staff, students, and associated organizations and an ability to negotiate solutions.
- Superior analytical and problem solving skills with special consideration to troubleshooting lab equipment and building infrastructure problems.
- Familiarity with the University safety programs.
- Must have training in Health and Safety, Fire Evacuation, Accident and Injury Investigation, Workplace Inspections, and Safe Chemical Handling, First Aid/CPR, Lab Safety, supervisor's training, job hazard analysis

Nature and Scope

- **Contacts:** Internal Working Relationships: Manager, Space Planning Executive Director, WIN Executive Director, IQC Director, Quantum NanoFab Director, Metrology Director, Nanotechnology Engineering Undergrad Director and team, Chair of the Chemistry and other related academic departments, Department Unit heads of the Plant Operations Department, The University Safety Officers
- **Level of Responsibility:** Detailed work with minimal supervision in areas related to Health and Safety and logistics
- **Decision-Making Authority:** Technical problem solving, find ways to create and install new instrumentation that making sure that everything operates within Health and Safety guidelines and manufacturer's standards.
- **Physical and Sensory Demands:** Works around heavy and valuable scientific equipment. Sometimes equipment is heavy, needs to be lifted up to 50lbs. Risk of chemical exposure and other laboratory materials, occasionally dealing with hazardous spills. The hazardous element is almost routine through the waste and disposal system that must operate properly at all times.
- **Working Environment:** Serves all QNC laboratories, does spend some time at desk in typical office environment. Sometimes is required to work during evenings and weekends and/or be on call for emergencies.