



UNION JOB DESCRIPTION

JD6081

JOB TITLE:	Biomedical Engineering Technologist	JOB DESCRIPTION NO.:	6081
CLASSIFICATION:	Biomedical Engineering Technologist P1	GRID/PAY LEVEL:	H-E-P1
COLLECTIVE AGREEMENT:	Health Science Professionals	HSCIS NO.:	51801
UNION:	HSA	JOB/CLASS CODE:	51801
PROGRAM/DEPARTMENT:	Biomedical Engineering	BENCHMARKS (If Applicable):	
REPORTING TO:	Supervisor or designate		
FACILITY/SITE:	Victoria General Hospital; Royal Jubilee Hospital; Cowichan District Hospital (Quw'utsun Valley Hospital); Nanaimo Regional General Hospital; North Island Hospital (Comox Valley Campus; Campbell River and District)		

JOB SUMMARY:

In accordance with the Vision, Purpose, and Values, and strategic direction of the Vancouver Island Health Authority (Island Health), patient and staff safety is a priority and a responsibility shared by everyone; as such, the requirement to continuously improve quality and safety is inherent in all aspects of this position.

Reporting to the Supervisor or designate, the Biomedical Engineering Technologist performs a wide range of technical services including the installation, testing, repairing and maintenance of biomedical equipment, instrumentation, and ancillary systems within professional scope of practice, within a hospital environment. The Biomedical Engineering Technologist participates in incident investigations and hazard follow-up involving medical device technology, contributes to the development of specifications and tender reviews, and acts as a technical resource to clinical staff on the orientation/training of equipment use.

The Biomedical Engineering Technologist contributes to the achievement of organizational and departmental objectives, in accordance with established standards of practice, Island Health policies, and work-related processes, procedures and guidelines, including safety and quality protocols.

Travel may be a requirement of this position. Transportation arrangements must meet the operational requirements of Island Health in accordance with the service assignment and may require the use of a personal vehicle.

TYPICAL DUTIES AND RESPONSIBILITIES:

1. Inspects, diagnoses malfunctions, and performs difficult repairs on biomedical and ancillary systems such as heart-lung perfusion equipment, electrosurgical units, medical laboratory equipment, physiological monitors, ventilators, infusion pumps, blood pressure machines, dialysis equipment and defibrillators. Tests and calibrates complex equipment according to manufacturer specifications.
2. Performs scheduled maintenance using a variety of test equipment and corrects problems to ensure manufacturer specifications, warranty requirements, and hospital safety and performance standards are met. Informs clinical staff on the status of their medical equipment inventory and prepares and communicates schedules regarding planned maintenance.
3. Performs acceptance tests and installs new biomedical and electronic equipment, in accordance with departmental procedures. Liaises with the vendor(s), the clinical area and other departments to plan, implement and monitor the installation of equipment that is small in scope (e.g., within one department at one site). Assists clinical areas in ordering accessories and supplies from suitable sources and evaluating products for clinical and cost effectiveness.

4. Participates in the implementation and maintenance of medical device networks and interfaces between medical devices and electronic medical record systems, including software configuration, troubleshooting technical issues and ensuring compliance with relevant regulations and standards. Collaborates with clinical and information technology service staff to develop, maintain and implement protocols for data management and sharing, ensuring patient data privacy and confidentiality.
5. Provides input to the pre-purchase evaluation of new biomedical and electronic equipment. This includes participation in the identification of equipment needs, contributing to the development of technical specifications, reviewing vendor submissions, evaluating equipment for technical acceptance and safety prior to selection and providing recommendations for purchase.
6. Participates in incident investigations and hazard follow up involving medical technology, inspects the equipment involved, collects information, documents all aspects of the investigation and submits reports as required. Provides input and recommendations into the prevention of reoccurrence of such incidents.
7. Maintains services reports by recording details of repair, maintenance and calibration and other related information in accordance with department policies and procedures. Uses computer-based information and published sources of product and technical data to determine equipment service and parts supply options.
8. Performs the end-of-life process for medical devices, ensuring decommissioning complies with organizational policies. Obtains necessary approvals, ensures secure data destruction and coordinates decommissioning actions across departments. Maintains thorough records for compliance and audit purposes.
9. Maintains an understanding of clinical procedures and practices involving medical devices and related technology such as sterile techniques (e.g., how endoscopes are cleaned, how lasers interact with human tissue) and networking and cybersecurity (e.g., how devices connect to Cerner through the different network components) to act as a resource and to ensure the ability to understand the needs of the department, clinical staff, patients and others.
10. Participate in employer programs and initiatives such as research activities, risk management, quality improvement team conferences, meetings, and the development of new policies, planned maintenance and standard operating procedures, ensuring regular review and updating to incorporate new safety requirements and technological advancements.
11. Provides orientation, guidance, and collegial information or demonstration of equipment or work methods and processes to others including peers, new staff, and students. Provides instruction and/or supervision to students; evaluates and provides feedback on student progress. Provides work direction to support staff.
12. Researches and provides input into the modification, redesign and/or development of biomedical and electronic equipment to improve the quality of patient care or reduce costs.
13. Performs other related duties as assigned.

QUALIFICATIONS:

Education, Training And Experience

- Graduation from a recognized diploma program in Biomedical Engineering; and
- Valid Class 5 BC Driver's License.

An equivalent combination of education, training and experience may be considered.

Skills And Abilities

- **Communication:** Demonstrated ability to communicate effectively with patient, vendors, family, the public, medical staff and multi-disciplinary teams using verbal, written and computer-based communication. Ability to utilize conflict resolution skills to promote collaboration and effective problem-solving in multi-disciplinary settings.

- **Judgment:** Demonstrated ability to exercise independent, professional judgment with empathy, tact and integrity when dealing with patient, staff, vendors and others. Ability to promote culturally safe, patient-focused care by incorporating an understanding of cultural and spiritual beliefs and preferences, patient advocacy and social justice concerns to enhance service provision and decision making. Ability to address issues with critical thinking, analytical reasoning, and advanced troubleshooting skills.
- **Teamwork:** Demonstrated ability to establish and maintain effective working relationships in a complex, multi-disciplinary environment.
- **Organization:** Demonstrated ability to independently organize work, set objectives, problem-solve and establish priorities in a complex, continuously changing environment. Manages time and resources effectively to consistently complete tasks with accuracy in the interest of ensuring effective and timely delivery of services.
- **Equipment:** Demonstrated ability to operate electronic test equipment, hand tools, power tools and other related equipment as required in the specific practice area. Current computer troubleshooting and networking knowledge, including an understanding of cybersecurity and interfaces with electronic medical records. Ability to operate computerized systems, Microsoft Office Suite applications and clinical software programs.
- **Physical Ability:** Physical ability to perform the duties of the position.