

JOB DESCRIPTION

This job description is a summary of the typical job duties and requirements that are essential to the evaluation of the job and is not intended to be complete in detail. On occasion, individuals classified on this job may be required to perform functions of a higher or lower skill level not included in this job description.

Job Title: Biomedical Electronics Technician I		Date: January 27, 2010	
Cost Center #: 257010	Cost Center Name: Medical Engineering	Reports to (first level): Chief Biomedical Engineer	2nd level of Supervision: Director, Medical Engineering

1. JOB SUMMARY & SCOPE:

Perform safety testing, preventive maintenance, repairs, installation, pre-acceptances testing, and user training on computers linked to Biomedical Equipment as well as advising on issues related to technology planning & management. In charge of shop tools, status and needed parts.

Software Installation and settings for computerized Medical Equipment

System Administration on servers (Windows 2003 and above) related to Medical Engineering department and some major Medical Equipment.

Support the mission and vision of the American University of Beirut Medical Center (AUBMC) and that of the department.

2. JOB COMPETENCY PROFILE:

- **Technical Expertise:** Knowledgeable in technical area
 - Know when to ask for help when work loads or critical work assignments demand it
 - Consult with physicians, nurses and users on equipment operation and problems by providing informal guidance/in-service as needed
- **Applied technology:** Maintain and optimize equipment and systems
 - Perform pre-acceptance inspections
 - Perform repairs, modifications and installations on equipment and system installations according to procedures which comply with standards and recommendations of governing agencies
 - Maintain and repair medical equipment and related facilities in clinical areas
 - Test patient owned/equipment on demo or loan as per the set procedure as well as technical inspection on equipment and calibration of all of our test equipment
 - Troubleshoot electronic printed circuit boards to component level
- **Quality management:** Monitor quality indicators and recommend improvements
 - Actively contribute in the department PI activity and submit requested reports on time
 - Make sure that vendors carry out preventive maintenance on equipment during warranty period. Correct problem efficiently
 - Participate in maintaining quality assurance policies
- **Information & Records Administration:** Process and update information systems
 - Develop preventive maintenance procedures on newly purchased equipment. Make sure that proper service and operation documentation is received. File procedures and manuals accordingly
 - Maintain/check the equipment data in the equipments database as well as the service documentation and service notes/bulletins/software
 - Assist in performing research & development work as requested by various departments

- **Team Skills:** Teamwork/Collaboration
 - Provide technical assistance on codes and standards (including JCI, AAMI, AHA, NFPA, CSA, UL, CAP, FDA, ACR, etc. as applicable)
 - Help in special biomedical and/or laboratory procedures
 - Promote an atmosphere of mutual respect and cooperation
 - Encourage and support others
 - Provide information, assistance and guidance to others to help them perform their responsibilities
- **Safety & Health Management:** Ensure safe and healthy working conditions
 - Attend to the safety requirements and take appropriate actions on recalls and alerts
 - Utilize proper safety equipment when performing duties
 - Maintain safety standards, environmental and infection control
 - Perform preventive maintenance /electrical safety inspections according to procedures
 - Ensure safety (personal, patient, and organizational) behavior/skills are used continuously and consistently (e.g., infection control, reporting errors/accidents)
- **Problem solving:** Use analytical skills to solve problems in a logical and organized manner
- **Initiative:** Recognize and address current and imminent issues
 - Address imminent issues & act promptly in a crisis situation
 - Respond to emergency calls, during the workday, on computers linked to Biomedical equipment problems and initiate appropriate actions
 - Anticipate needs and take appropriate action to meet those needs
- **Planning & Organizing:** Prioritize own work.
 - Keep work areas orderly, clean and safe
 - Plan and organize work effectively
 - Properly stock parts and maintain inventory as specified in Medical Engineering Lab policies and procedures
 - Utilize time well to perform quality work effectively and efficiently
 - Carry out rounds on various floors
- **Resources Management:** Use resources effectively
 - Request supplies and materials as needed for the completion of the assigned work
- **Accountability:** Adhere to basic instructions
 - Can be counted on to complete duties and responsibilities accurately and on time
 - Follow through with plans
 - Work according to established procedures and technical standards
 - Completed work may be checked at a subsequent stage in the work cycle
- **Communication Skills:** Foster Two-way Communication by listening and responding to people's inquiries and concerns
- **Client Focus:** Respond to client requests efficiently and effectively
 - Consistently greet customers (patients, physicians, co-workers and visitors) with courtesy and respect
- **Organization Awareness:** Understand Formal Structure of AUBMC and apply internal policies and procedures
 - Understand and accurately apply internal policies and procedures that are related to their job
- **Computer Skills:** Word processing and spreadsheet
- **English Comprehension:** Understand written sentences and paragraphs in work related documents

3. KNOWLEDGE:

- Knowledge of international codes of practice especially those related to JCI, FDA and other US regulatory agencies
- Knowledge of PC's/ electronics. Knowledge of physiology, mechanical, optical, hydraulic, pneumatic & radiation principles that apply to biomedical equipment systems is a plus.

4. PRINCIPAL WORKING RELATIONSHIPS:

- Routine contacts with Biomedical Equipment users including nurses and doctors, Department Heads/Supervisors, company service representatives, purchasing department and supply/receiving

5. CONSEQUENCES OF ACTIONS OR DECISIONS:

- Improperly maintained equipment can be hazardous to patients
- The failure of critical life support equipment could be fatal.
- Reduced quality and reliability of Biomedical Equipment may result in misdiagnosis/ improper treatment of patients
- Admissions may be limited on floors where equipment has not been repaired quickly
- Procedures may be rescheduled pending the repairs on equipment
- Loss of income due to equipment failure
- Loss of income and leading edge due to wrong technology planning/ acquisition decisions
- Accreditation bodies' inspection may result in negative ratings.
- Decrease in community satisfaction level with patient care at HOSPITAL due to increase in treatment time or rescheduling of appointments

6. SUPERVISORY RESPONSIBILITY:

- None

7. PHYSICAL EFFORT:

- Slight to moderate physical effort involving standing/ walking moving and installing equipment; approximately 60% of working time
- Occasional heavy lifting up to 20 kg. Repeated pushing and pulling of tool carts, frequent sitting at work station. Tedious work assignments involving very small parts and complex wiring which requires normal vision and color vision

8. WORKING CONDITIONS:

- Normal shop environment, with minor exposure to cuts, dirt, noise, oil, etc. (70%).
- Well lit shop environment, controlled climate with slightly confined workspaces. Out of shop conditions vary widely, confined spaces, wet locations, some with communicable diseases. Exposure to certain biological, chemical, mechanical and electrical hazards
- Often will need to work in patient areas and laboratories with AUBMC and to walk to DTS, UHS, and FAS (AUB lower campus)
- Can be on call during weekends and holidays

9. MINIMUM JOB REQUIREMENTS:

Education:

Minimum Education: BT in electricity/electronics/computer

Preferred Education: T.S. in electronics or computers or biomedical instrumentation

Field of Expertise: Computers and Systems Maintenance / Computerized Biomedical Equipment Maintenance/ electronics

Experience:

Preferred Experience: Three years experience in the installation and repair of computers linked to medical equipment within a hospital setup

Languages:

Minimum Languages: Arabic and English (IET score \geq 500)

Preferred Languages: German and French

Compiled By:

HR Generalist

Date: June 23, 2009

Approved by (Dep Hd, Chairman):

Date:

HR Director's Authorization:

Date:

Supersedes Description:

Title:

Grade:

Date: Feb. 1, 2006

Job Code:

Job Grade:

Date: