

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: Programmer/Analyst I		Date: May 5, 2010	
Cost Center #: 257010	Cost Center Name: Medical Engineering	Reports to (first level): Head of Medical IT Unit	2nd level of Supervision: Director, Medical Engineering

1. JOB SUMMARY & SCOPE:

Perform safety 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 Data Backups for computerized Medical Equipment

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

Programming in VB.NET or C++ (Programming Microcontrollers is a PLUS)

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

2. JOB COMPETENCY PROFILE:

- **Client Focus:** Anticipate and adapt to client needs/Address underlying client needs
 - Consistently greet customers (patients, physicians, co-workers and visitors) with courtesy and respect
 - Advise/help in technology planning/acquisitions
 - Advise/help in cost effective technology management
- **Accountability:** Independently complete routine task until successful completion
 - Accept responsibility and perform responsibilities with limited supervision
 - 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
- **Organization Awareness:** Understand organization issues and contribute to internal policies and procedures
 - Participate in establishing and maintaining Hospital policies & objectives
- **Initiative:** Act in a creative and innovative manner
 - 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
- **Computer Skills:** Using AUBMC computer and related applications to convey and retrieve information: databases.
 - Familiarity with Microsoft Visual and intranet development tools and servers
 - Familiarity with Java tools, SQL, ASP, PHP, HTML programming languages an advantage

- **Communication Skills:** Foster two-way communication by listening and responding to people's inquiries and concerns
- **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
 - Participate in establishing and maintaining 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)
- **Developing Others:** Share expertise with others
 - Train technical service personnel on the use of new or modified equipment according to internally developed requirements
- **Problem solving:** Use creative thinking in solving problems involving varied levels of complexity, ambiguity and risk
 - 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
- **Technical Expertise:** Proficient knowledge 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
- **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
- **Planning & Organizing:** Prioritize and coordinate plans for others' work.
 - Keep work areas orderly, clean and safe
 - Plan and organize work effectively
 - Utilize time well to perform quality work effectively and efficiently
 - Carry out rounds on various floors

- **Information & Records Administration:** Manage and analyze information
 - 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
 - Perform research & development work as requested by various departments
- **Resource Management:** Use resources effectively
 - Request supplies and materials as needed for the completion of the assigned work
 - Properly stock parts and maintain inventory as specified in Medical Engineering Lab policies and procedures
- **Quality management:** Monitor quality indicators and recommend improvements
 - Actively contribute in the department PI activate and submit requested reports on time
 - Make sure that vendors carry out preventive maintenance on equipment during warranty period. Correct problem efficiently
 - Participate in establishing and maintaining quality assurance policies
- **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
- **English comprehension:** Business writing

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.
- Proficient knowledge in developing medium to small scale business and administrative applications.
- Knowledge of structured programming techniques and ability to test application programming

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: Bachelor's degree in Computer Science, Computer Information Systems or a related field

Field of Expertise: System administrator / Information Technology / Programmer

Experience:

Minimum Experience: Two years experience in the installation and maintenance of computers and servers; programming with .NET and/or C++

Languages:

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

Preferred Languages: German and French

Compiled By:

HR Generalist

Date: May 21, 2009

Approved by (Dep Hd, Chairman):

Date:

HR Director's Authorization:

Date:

Supersedes Description:

Title:

Grade:

Date: May 25, 2009

Job Code:

Job Grade:

Date: