

**BOARD OF REGENTS  
STATE OF IOWA  
REGENTS MERIT SYSTEM**

**Class Title:** Biomedical Equipment Technician,  
Senior

**Class Code:** 3404

**Pay Grade:** 415

**GENERAL CLASS DESCRIPTION:**

Under general supervision tests, calibrates, repairs, fabricates, modifies and maintains complex electronic/electro-mechanical equipment systems. The equipment systems are varied and frequently non-related as well as being located in multiple and diverse departments of the institution. Types of equipment include life support, resuscitation, diagnostic and therapeutic equipment/systems used in a patient care or medical/biological environment. Provides functional supervision as required.

**CHARACTERISTIC DUTIES AND RESPONSIBILITIES:**

1. Tests the performance and operating characteristics of medical electronic/electro-mechanical equipment/systems to ensure compliance with established performance and safety standards.
2. Documents the results of equipment safety/performance evaluations.
3. Diagnoses problems and performs corrective repair work and/or calibration as required on complex medical electronic/electro-mechanical equipment/systems.
4. Documents actions required to correct equipment/system malfunctions.
5. From schematic diagrams and layout drawings, fabricates and tests new electronic equipment as required.
6. Orders parts and supplies as required in the maintenance and fabrication of complex medical electronic/electro-mechanical equipment/systems and advises on the selection of repair parts for inventory.
7. Attends workshops, conferences and specialized training courses to keep abreast of the field.
8. Reads, studies, or revises appropriate publications related to the field.
9. Makes equipment modifications where recommended by manufacturers and/or appropriate sources.

The tasks listed under the heading of Characteristic Duties and Responsibilities are examples of the variety and general nature of duties performed by employees in positions allocated in the class. The list is descriptive only and should be used for no other purpose. It is not intended that any position include every duty listed, nor is it intended that related duties cannot be required.

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10. Where appropriate, advises equipment operators on the proper use of equipment.
11. Evaluates and advises on requests for equipment alterations and/or modifications.
12. Assists in the training of staff and co-workers as required.

**KNOWLEDGES, SKILLS, AND ABILITIES:**

1. Broad-based, in-depth knowledge of electronic theory, circuitry and “state of the art” components.
2. Knowledge of medical terminology.
3. Knowledge of NFPA, JCAHO, Bioengineering and other applicable standards and policies.
4. Basic knowledge of chemistry, physics and human physiology.
5. Ability to apply troubleshooting logic in diagnosing to component level and repairing associated circuit malfunctions of complex electronic equipment/systems used in a medical research environment.
6. Ability to use general and specialized test equipment, hand and shop tools.
7. Ability to read and interpret electronic schematics, technical documents and architectural blueprints.
8. Ability to communicate with the professional medical staff both orally and in writing.
9. Ability to work in a medical/research environment under adverse conditions.
10. Ability to solder sensitive and small components.
11. Ability to use independent judgment to ensure quality patient care.
12. Skill in repairing equipment without “reworks”.
13. Ability to assemble, fabricate and test electronic circuits and/or modifications to electronic equipment.
14. Ability to lift in excess of fifty pounds.
15. Ability to work in confined spaces for prolonged periods of time.

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16. Ability to devise or design electronic circuits to meet specific needs.
17. Ability to provide effective functional management.

**MINIMUM ELIGIBILITY REQUIREMENTS:**

1. Graduation from a two-year residential electronic technology trade school within the past eight years and three years of postgraduate experience within the last five years troubleshooting to component level, calibrating, and testing electronic/electro-mechanical equipment used in a patient care or medical/biological environment.
2. Must be a Certified Biomedical Equipment Technician (CBET) by the Association for the Advancement of Medical Instrumentation (AAMI).

**REVISION EFFECTIVE: February 20, 2005**