



Biomedical Certifications



ETA® International Biomedical Certification Programs:

Biomedical Electronics Technician (BMD)

Biomedical Equipment Technician (BIET)

Biomedical Electronics Technicians (BMD) are expected to obtain knowledge in the principles of modern biomedical techniques, of the proper procedure in the care, handling and maintenance of biomedical equipment and to display an attitude/behavior expected of a Certified Electronics Technician (CET) who works in a hospital or healthcare environment. Once the CET has acquired these skills, abilities and knowledge, he or she will be able to enter employment in any part of the biomedical electronics field. With minimal training in areas unique to specific products, the CET should become a profitable and efficient part of the medical workforce.

The ETA Biomedical Electronics Technician (BMD) certification exam covers topics such as:

- The Human Nervous System
- Medical Electrodes
- Cables and Cabling
- Computer
- Transducers
- Medical Electronics Safety
- Hemodialysis Equipment
- Networking
- Medical Ultrasound Instruments
- Mathematics
- Building Wiring
- Optical Wiring
- Radiology
- Test Equipment and Tools
- Troubleshooting
- Operating Room Familiarization
- Instrumentation-Respiratory
- Instrumentation-The Medical Laboratory
- Electrosurgery Generators
- Intensive and Coronary Care Units
- Cardiac Support System
- Bioelectric Amplifiers

Biomedical Imaging Equipment Technicians (BIET) are responsible for maintaining and repairing medical imaging equipment. They maintain, calibrate, adjust, and repair many different types of equipment. They can work on medical imaging equipment such as: x-rays, defibrillators, patient monitors. BIET's will use hand tools, software, electronic tools, multi meters, and soldering irons to complete the repair on sophisticated medical equipment.

The certified BIET must be knowledgeable and have abilities in the following technical and human relations areas:

- Anatomy
- Medical Terminology
- Computer
- Electro/Mechanical Safety
- Picture Archive Communication System
- Diagnostic Ultrasound Equipment
- Building Wiring
- Basic Radiograph Equipment
- Film Processing
- Test Equipment
- Magnetic Resonance Imaging
- Computed Tomography
- Nuclear Medicine
- Codes and Regulations
- Troubleshooting
- Radiation Safety
- Radiation Physics
- Linear Accelerators

For a complete list of study materials and competencies visit the ETA International website: www.eta-i.org

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