

PROPOSED

CURRICULUM STANDARD

Effective Term
Summer 2011
[2011*02]

Curriculum Program Title

Biomedical Equipment Technology

Code

A50100

Concentration

(not applicable)

Curriculum Description

The Biomedical Equipment Technology curriculum prepares individuals to install, operate, troubleshoot, and repair sophisticated devices and instrumentation used in the health care delivery system. Emphasis is placed on preventive and safety inspections to ensure biomedical equipment meets local and national safety standards.

Course work provides a strong foundation in mathematics, physics, electronics, anatomy, physiology, networking and troubleshooting techniques. Some courses will include job experience and job shadowing, as well as people skills and communication, both in written and oral form.

Graduates should qualify for employment opportunities in hospitals, clinics, clinical laboratories, shared service organizations, and manufacturers' field service. With an AAS degree and two years experience, an individual should be able to become a certified Biomedical Equipment Technician.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (3)]

- I. General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.
- II. Major Hours.** AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work experience, including cooperative education, practicums, and internships, may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*
- III. Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	64-76	36-48	12-18

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

PROPOSED

Major Hours

[ref. 23 NCAC 02E.0204 (3)]

- A. Core.** The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.
- B. Concentration** (if applicable). A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.
- C. Other Major Hours.** Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work experience, including cooperative education, practicums, and internships, may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Biomedical Equipment Technology A50100

	AAS	Diploma	Certificate
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC
A. CORE Required Courses: BMT 111 Introduction to Biomedical Field 2 SHC BMT 112 Hospital Safety Standards 3 SHC BMT 212 BMET Instrumentation I 6 SHC BMT 223 Imaging Techniques/Laser Fundamentals 4 SHC BMT 225 Biomedical Troubleshooting 4 SHC ELN 133 Digital Electronics 4 SHC BMT 213 Instrumentation II 3 SHC ELN 131 Electronic Devices 4 SHC Required Subject Areas: Anatomy and Physiology. Select one: BIO 161 Introduction to Human Biology 3 SHC BMT 120 Biomedical Anatomy & Physiology 3 SHC Electricity. Select one: ELC 112 DC/AC Electricity 5 SHC ELC 131 DC/AC Circuit Analysis 5 SHC Networking. Select one: NET 110 Networking Concepts 3 SHC NET 125 Networking Basics 3 SHC	41 SHC	12 SHC	
B. CONCENTRATION (Not applicable)			
C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i> BIO, BMT, CET, CIS, COE, CSC, CTS, DBA, EGR, ELC, ELN, ISC, NET, NOS, OMT, PCI, SEC, and TNE <i>Foreign language courses (including ASL) that are not designated as approved other major hours may be included in all programs up to a maximum of 3 semester hours of credit.</i>			