

# BIOMEDICAL EQUIPMENT TECHNOLOGY

## AAS DEGREE (A50100)

### ADMISSION

#### GENERAL INFORMATION

The Biomedical Equipment Technology (BMET) program 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.

The coursework in the program provides a strong foundation in mathematics, networking, electronics, anatomy and physiology and troubleshooting techniques. Some courses will include on-the-job experience, as well as social and communication skills in written and oral form.

Graduates should qualify for employment opportunities in hospitals, clinics, clinical laboratories, shared service organizations, and manufacturers' field service. Graduates with an AAS degree and two years of experience should be able to become a Certified Biomedical Equipment Technician after passing the International Certification Commissions CBET exam.

#### ADMISSIONS PROCESS

##### Admission Steps

- Complete CCC&TI admissions application online at [cccti.edu](http://cccti.edu)
- Submit official high school/GED/AHS transcripts and college transcripts
- Complete FASFA online at [www.studentaid.gov](http://www.studentaid.gov)
- Meet placement testing requirements
- Gateway English and math readiness

Applicant must be eligible to enter the program required gateway (college-level) English and math courses without a co-requisite or have successfully passed English and math transition courses as follows:

ENG 002 with a grade of P2

MAT 003 with a grade of P2

Placement tests may be waived for students who have transferable college credit that shows proficiency in reading, English, and math, or acceptable SAT or ACT scores. Documentation must be provided if an applicant has college transfer credit or has SAT or ACT scores, which would exempt applicant from placement testing. Acceptable SAT and ACT scores must meet the following criteria:

SAT/ACT Test Score Guide			
Reading/English		Math	
ACT Reading	≥22	ACT Math	≥22
OR			
ACT English	≥18	SAT Math	≥500
SAT Writing	≥500		
OR			
SAT Critical Reading	≥500		

- Meet with advisor to register for classes
- Attend new student orientation (online)
- Pay for classes and purchase books bundle

Caldwell Community College and Technical Institute's (CCC&TI) mission and philosophy includes the process to establish fair and equitable student guidelines for admission and progression.

The mission of the BMET program is:

*To provide a quality education with a focus on electronics, instrumentation, and the procedures required to properly maintain and repair healthcare technology.*

The intent of the BMET program is:

*To provide a quality education with a focus on electronics, instrumentation, and the procedures required to properly maintain and repair healthcare technology.*

- The director of the BMET Program determines the availability of seating for the program subject to the availability of clinical space. Consequently, even a student who meets all requirements may not be admitted due to limited student capacity. **The availability to collaborative students is based on enrollment.**
- The BMET program typically accepts 20 new students each year for the fall semester on the Caldwell campus. If a student has all required course work for the first year of the program and there are seats available in the second year, (determined by how many collaborative students enter the second year of the program), the student may be admitted into the second year of BMET program if the student has credit for the following courses:

ELC 131	ELN 131
MAT 121 or 171 & 171A	ELN 133
NET 125	

**Notes:**

- A student may not qualify for WBL 112 and WBL 115 (Work Based Learning) Experience until all previous course requirements have been satisfactorily met with a grade of “C” or higher.

*NOTE: Completion of all admission requirements is not a guarantee of acceptance into BMET program. Available student seating is determined by the program director based upon limited student capacity, which is communicated through the BMET admissions representative.*

## STUDENT RESPONSIBILITIES

*Upon admission into the BMET program, students are responsible for the following:*

◆ **MEDICAL INFORMATION**

Students must submit an accurate and satisfactory **student medical form**—which includes appropriate documentation of immunizations by a healthcare provider or county health department the results of a and physical exam —must be submitted to program director before the last day of classes of the fall semester of the second year. **The Student Medical Form for North Carolina Community College System institutions is available to all BMET students in Student Services at CCC&TI.** CCC&TI requires the following current tests and immunizations:

- a. Tuberculin Test (within 12 months of WBL 115)
- b. Proof of immunity by vaccination or blood titer for measles/mumps/rubella (MMR) as specified according to the applicant’s age group outlined on the Student Medical Form
- c. Current immunization for tetanus and diphtheria
- d. Immunization or titer demonstrating immunity for varicella (chicken pox)
- e. BMET students are encouraged to obtain Hepatitis B immunizations or sign a declination form for Hepatitis B, which must be on file with program director with Student Medical Form
- f. COVID – 19 Vaccination – if facility requires

◆ **CLINICAL INFORMATION**

- Criminal background checks (CBC) and/or urine drug screenings (UDS) may be required for the applicant to participate in the clinical component. All costs associated with CBCs and UDS are the responsibility of the student. Testing will be scheduled for students by an approved testing agency and results will be submitted to assigned clinical site by testing agency. Students who

are denied access into clinical sites as a result of a CBC or UDS will not be reassigned, will fail to progress in the BMET program, and will be withdrawn from the program.

- Students will assume the responsibility for travel to and from the clinical site and all associated costs.
- Students will assume responsibility for all health care or emergency room costs they might incur during clinical experiences.
- Students will complete a final evaluation of the clinical site, including faculty and educational experience.
- Co-op healthcare facilities may require additional immunizations, such as influenza. An employee orientation to begin EBL education experience may also be required.

*NOTE: WBL facilities are located throughout North Carolina. Students will be assigned WBL facility to complete WBL 112 requirements of 320 hours by the program director. Students are responsible for all travel costs. Every attempt will be made to keep students as close as possible to their residence; however, there is no guarantee to which facility an individual will be assigned.*

#### ◆ **PHYSICAL AND COGNITIVE EXPECTATIONS OF BMET STUDENT**

BMET is a discipline where cognitive, sensory, affective, and psychomotor performance is required. For the purpose of BMET program compliance with the 1990 Americans with Disability Act, a qualified individual with a disability is one who, with or without reasonable accommodation or modification, meets the essential eligibility requirements for participation in the BMET program.

The BMET student must meet the following technical standards:

- Sufficient eyesight to perform electronic repairs and manipulate clinical equipment test analyzers.
- Sufficient hearing to communicate verbally with other healthcare providers.
- Sufficient verbal and written skills to communicate needs promptly and effectively in English.
- Sufficient gross and fine motor coordination to respond promptly, manipulate equipment, lift a minimum of 30 lbs., and ensure patient safety.
- Satisfactory intellectual and emotional functions to exercise independent judgment and discretion in the safe technical performance of medical equipment.

If the student or faculty member believes that the student cannot meet BMET program requirements without accommodations or modifications, the BMET faculty, in consultation with the Coordinator of Disability Services, will determine on an individual basis whether or not the necessary accommodations can be reasonably made.

## COST

### Estimated BMET Program Costs

<b>Tuition</b>	\$76.00 per credit hour \$35.00 per semester: student activity fee (fall/spring) \$2.00 per course/no more than \$10 a semester: campus service fee \$2.00 per semester: Student Insurance
<b>Textbooks</b>	\$1,000 - \$1,500 minimum for all 5 semesters
<b>Insurance Fees</b>	\$16.00 malpractice insurance \$6.00 accident insurance
<b>Compliance Tracking for Immunizations, Criminal Background Check, and Urine Drug Screen.</b>	Approximately \$150.00
<b>Travel</b>	Varies per individual student. WBL clinical placement lasts eight weeks in healthcare facilities across North Carolina.
<b>NCBA</b>	North Carolina Biomedical Association Membership and Symposium  Approximately \$250.00, depending on hotel accommodations and travel arrangements. Symposium is a 3-day event held in Charlotte, NC and is required for second year students and advised for first year students.
<b>Graduation Fee</b>	\$25.00
<b>Total Approximate Cost</b>	\$7500.00 (excluding Co-Op travel)

## CLASS OFFERINGS

Fall Semester I					
ACA	115	Success & Study Skills	F/S/SS		1 credit
BMT	111	Intro. To Biomedical Field	F/SS		2 credits
ELC	131	Circuit Analysis I	Fall Only		4 credits
ENG	111	Writing and Inquiry	F/S/SS		3 credits

NET	125	Introduction to Networks	Fall Only		3 credits
				Total	13 credits
<b>Spring Semester I</b>					
ELN	131	Analog Electronics I	Spring Only	Corequisite: ELC 112 OR ELC 131	4 credits
ELN	133	Digital Electronics	Spring Only		4 credits
MAT	121	Algebra/Trigonometry	S/SS		3 credits
SEC	110	Security Concepts	Spring Only		3 credits
				Total	14 credits
<b>Summer Semester I</b>					
BIO	163	Basic Anatomy and Physiology	F/S/SS		5 credits
BMT	112	Hospital Safety Standards	Summer Only		3 credits
*Student choice	Social Science Elective		F/S/SS		3 credits
				Total	11 credits
<b>Fall Semester II</b>					
BMT	212	BMT Instrumentation I	Fall Only		6 credits
BMT	223	Imaging Techniques/Laser Fundamentals	Fall Only	Corequisite: BMET 212	4 credits
COM	120	Intro to Interpersonal Communication	F/S/SS		3 credits
		<b>OR</b>			
COM	231	Public Speaking	F/S/SS	Prerequisite: ENG 111	3 credits
NET	175	Wireless Technology	Fall Only		3 credits
				Total	16 credits
<b>Spring Semester II</b>					
BMT	213	BMT Instrumentation II	Spring Only	Prerequisite: BMT 212 Corequisite: BMT 225	3 credits
BMT	225	Biomedical Trouble Shooting	Spring Only	Corequisite: BMT 213	3 credits
*Student choice	Humanities/Fine Arts Elective				3 credits
WBL	112	Work-Based Learning I	F/S		2 credits

WBL	115	Work-Based Learning Seminar I	F/S	Corequisite: WBL 111, WBL 112, WBL 113 or WBL 114	1 credit
				Total	12 credits
<b>Total Credit Hours: 67</b>					

For additional information, please contact:

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