

AAMI Training & Certification: An HTM's Pathway to Success

Sherrie Schulte, CAE, Vice President, Education, AAMI

About AAMI

50+

Staff headquartered in
Arlington, VA

2,000+

Healthcare device manufacturers,
clinicians, HTMs and end users
engage in standards development

25+

Governmental and
association partners

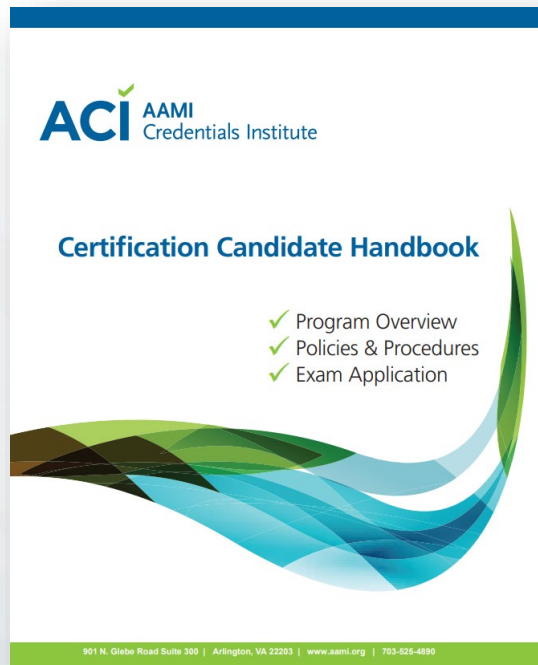


HTM Certification Programs

- Certified Associate in Biomedical Technology (**CABT**)
 - **No Eligibility Requirements.**
 - **Lasts 5 years**
 - **Exam is online.**
- Certified Biomedical Equipment Technician (**CBET**)
- Certified Radiology Equipment Specialist (**CRES**)
- Certified Healthcare Technology Manager (**CHTM**)



ACI Certification Candidate Handbook



Testing Window	Application Deadline
May 1-15, 2024	April 24, 2024
November 1-15, 2024	October 23, 2024

- ACI Exam policies
- Exam outlines
- Exam reference lists
- Recertification policies
- Definitions

CBET/CRES Eligibility

CBET CRES	
FULL STATUS <i>(To fulfill requirements for CRES, at least 40 percent of work experience over the last two years, or 25 percent over the last five years, MUST BE in the designated specialty area.)</i>	CANDIDATE STATUS
OPTION 1: Associate's degree in biomedical equipment technology program and two years' full-time BMET work experience	OPTION 1: Associate's degree in biomedical equipment technology program
OPTION 2: Completion of a U.S. military biomedical equipment technology program and two years' full-time BMET work experience	OPTION 2: Completion of a U.S. military biomedical equipment technology program
OPTION 3: Associate's degree in electronics technology and three years' full-time BMET work experience	OPTION 3: Associate's degree in electronics technology and one year full-time BMET work experience
OPTION 4: Four years' full-time BMET work experience.	OPTION 4: Two years' full-time BMET work experience

- Full and Candidate Status applicants will take the same exam.
- Candidate Status applicants who pass the exam will have to wait until they reach the Full Status eligibility before being listed as a CBET.
- Upgrade applications can be found on the ACI Forms page of the website.



CHTM Eligibility

- **Path 1:** A current ACI certification with at least three (3) years of work experience as a supervisor or manager in the last five (5) years
- **Path 2:** DOD BMET training program completion with at least three years of work experience, military or civilian, as an HTM supervisor or manager in the last five years
- **Path 3:** An Associate's degree in biomedical technology, related healthcare discipline, information technology or business with at least three years of work experience as an HTM supervisor or manager in the last five years
- **Path 4:** A Bachelor's degree or higher in biomedical technology, engineering, related healthcare discipline, information technology or business with at least two years as a manager within the last five years.
- **Path 5:** Work experience with or without a degree not related to biomedical technology, related healthcare discipline, information technology, or business management. Seven years of work experience in the HTM field with three years of management experience in the last five years.



Exam Outlines

CABT – 100 questions

- Anatomy & Physiology
- Medical Devices
- Safety in Healthcare
- Fundamentals of Electricity & Electronics
- Reasoning & Problem Solving
- Healthcare IT



Exam Outlines

CBET – 165 questions

- Anatomy & Physiology
- Healthcare Technology Problem Solving
- Safety in the Healthcare Facility
- Fundamentals of Electricity & Electronics
- Healthcare Technology & Function
- Healthcare IT



Exam Outlines

CRES – 165 questions

- Anatomy & Physiology
- Healthcare Technology Problem Solving
- Safety in the Healthcare Facility
- Fundamentals of Electricity & Electronics
- Healthcare Technology & Function
- Healthcare IT



Exam Outlines

CHTM – 100 questions

- Financial Management
- Risk Management
- Operations Management
- Education & Training
- Human Resources



Testing Day Expectations

What you'll need:

- Two forms of identification (one must be a government issued photo ID).
- A copy of your confirmation email that contains your unique authorization code.
- A simple 5-function calculator

What to remember:

- Arrive at your testing location at least 15 minutes prior to your scheduled start time.
- If you need to reschedule or cancel your exam, please email aci@aami.org.
- If you fail to appear for your exam, you will forfeit all exam fees.
- Special accommodations must be requested at least 60 days in advance.

What to expect after the exam:

- Preliminary exam results will be emailed immediately following your exam.
- Final results will be mailed within 45 days of the exam window.

Note: If a new exam form is being introduced, results will be delayed.

- Candidates earning full certification will have their names added to the ACI Certification Directory



I'm Certified...Now what?

- **CEU Recertification** – 30 CEUs are needed every three years.
- **Six CEU Categories**
 - Earn a new certification
 - Volunteer in a leadership role
 - Development of education content
 - Professional development
 - College courses
 - Work experience



I'm Certified...Now what?

- **Grace Period** – The grace period is three months after the initial expiration date (March 31st).
- **Audit System** – Renewals will randomly be selected for audit. It is required that you submit supporting documentation for CEUs with your renewal regardless of audit selection.



ACI Recertification

Category 1: Earn an additional, relevant certification (Max 15 CEUs)

HTM Related (CBET, CRES, CHTM, CISS, CCE):	5 CEUs/Cert
Healthcare Related (CHSP, CQSP, CMLT, Dialysis Certs):	2 CEUs/Cert
Technology Related (A+, NET+, MCSE, CET):	2 CEUs/Cert
Business Certifications (PMP):	2 CEUs/Cert

Category 2: Leadership Roles (Max 15 CEUs)

Paid or volunteer positions on HTM and healthcare related committees.

- 30+ hours/year = 4 CEUs
- <30 hours/year = 2 CEUs



ACI Recertification

Category 3: Development of Educational Content (Max 15 CEUs)

- Write items for ACI (5 items) = 1 CEUs
- Published opinion-based article (min 500 words) = 1 CEUs
- Published peer-reviewed (1,200 – 1,500 words) = 3 CEUs
- Published technical article (1,200 – 1,500 words) = 3 CEUs
- Write a book (1 chapter) = 3 CEUs

- ***Key Point – Blog entries do not qualify for CEUs***



ACI Recertification

Category 4: Professional Development (**minimum 15 CEUs**)

Earn 1 CEU per hour of attendance *

- Attending educational class (such as AAMI), webinars, in-service, vendor presentations or vendor school, or HTM conferences (seminars/sessions)

Earn 2 CEUs per hour of attendance *

- Teaching educational class/seminar, presenting a technical paper, or presenting a webinar

Earn 0.5 CEUs per hour of attendance *

- Indirectly related courses (Communication, Management, Auditing..)

*Proof of CEU is required when submitting your journal. This can be a conference name badge, certificate of completion, or sign-in sheet.



ACI Recertification

Category 5: College or University Courses (Max 15 CEUs)

Must be related to exam content. Must receive a “C” or higher. Must provide transcripts.

- Attending a course 1 CEU / 10 hours of class time
- Teaching a course 3 CEUs / 10 hours of class time

Category 6: Work Experience (Max 6 CEUs)

- Full time (HTM Field) 1.5 CEUs / year
- Part-time/Military Reserve (HTM Field) 0.5 CEU / year
- *Only the years employed during the 3-year recertification cycle are valid for reporting.*
- *An individual without military or part-time employment can only claim a max of 4.5 CEUs.*

CEU Journal



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Martin McLaughlin

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Personal Information

First Name
Martin [Change](#)

Last Name
McLaughlin

Title
Director of Education

AAMI Member Type
Non-Rep Employee

Is Member

Department

Employer
Association for the Advancement of Medical Instrumentation

Daily Job Functions
Education

Career Level
Mid-career (5-15 years)



CEU Journal



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AAMI CEU Journal

Submit

Track all of your CEU's here! Once you've added your CEU's, hit "Submit" on the top right. Make sure to have all the CEU's needed to renew your certification.

Contact

* First Name

Martin



* Last Name

McLaughlin

CEU Journal

Once you have added your CEU's, please hit "submit" on the top right to save your records

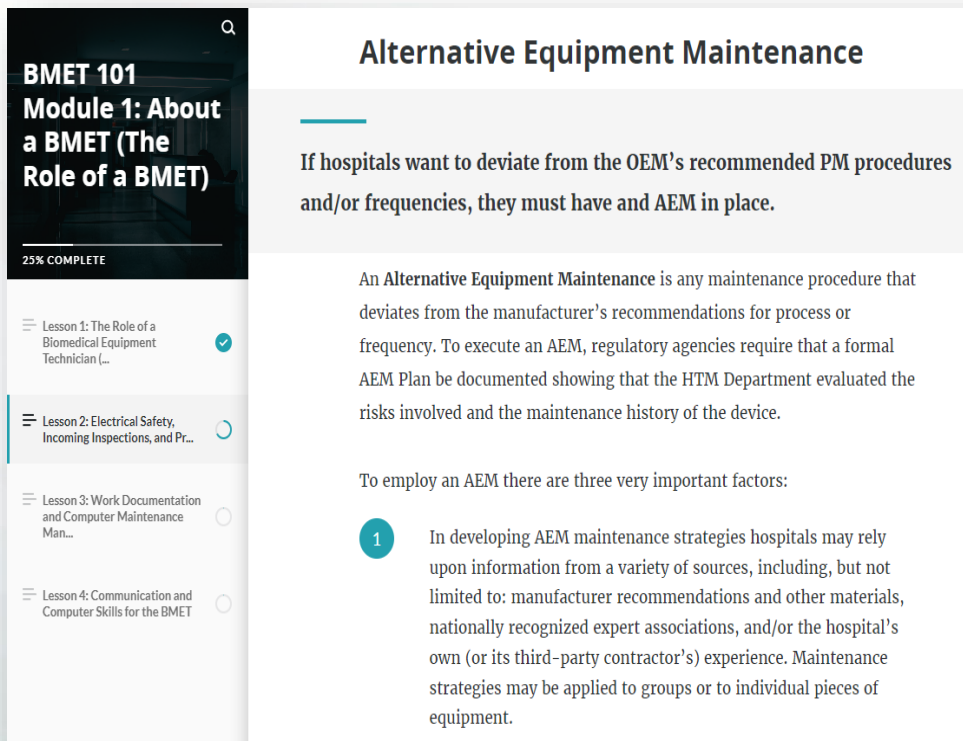
New Entry

Entry Title	AAMI Webinar - ACI CERT INFO	 
Category	Category IV: Professional Development (minimum CEUs needed: 15)	
CEUs	1.000000	

AAMI Training

Certification Prep

BMET101: CABT Prep - eLearning



BMET 101
Module 1: About a BMET (The Role of a BMET)

25% COMPLETE

- Lesson 1: The Role of a Biomedical Equipment Technician (✓)
- Lesson 2: Electrical Safety, Incoming Inspections, and Pr... (○)
- Lesson 3: Work Documentation and Computer Maintenance Man... (○)
- Lesson 4: Communication and Computer Skills for the BMET (○)

Alternative Equipment Maintenance

If hospitals want to deviate from the OEM's recommended PM procedures and/or frequencies, they must have and AEM in place.

An **Alternative Equipment Maintenance** is any maintenance procedure that deviates from the manufacturer's recommendations for process or frequency. To execute an AEM, regulatory agencies require that a formal AEM Plan be documented showing that the HTM Department evaluated the risks involved and the maintenance history of the device.

To employ an AEM there are three very important factors:

- 1 In developing AEM maintenance strategies hospitals may rely upon information from a variety of sources, including, but not limited to: manufacturer recommendations and other materials, nationally recognized expert associations, and/or the hospital's own (or its third-party contractor's) experience. Maintenance strategies may be applied to groups or to individual pieces of equipment.



- Various learning tools
- Self-paced
- Responsive design features
- Interactive



Learners should be able to complete the course in 5-7 hours.



AAMI Member: \$190

Non-Member: \$209

Certification Prep

CBET STUDY COURSE - eLearning

CBET Module 2: Fundamentals of Electricity and Electronics
63% COMPLETE

- Pretest - Start Here
- Lesson 1: Prefixes and Resistors
- Lesson 2: Ohm's Law and AC/DC Theory
- Lesson 3: Series RC/RL Circuit Characteristics, Inductors...
- Lesson 4: Circuit Types
- Lesson 5: Number System Conversions
- Lesson 6: Logic Gates/Circuits
- Lesson 7: Transducers

Check Your Understanding

Consider the following image and use Ohm's law to calculate the answer to each question. When you think you have the correct answer, flip the card to check your work.

Battery $E = 12\text{ V}$

Lamp $R = 3\ \Omega$

$I = ???$

$I = ???$

- What will happen to the brightness of the lamp if another lamp is added in series with the existing lamp?
- What will happen to the brightness of the lamp if another lamp is added in parallel with the existing lamp?
- What is the total current draw on this circuit?



- Various learning tools
- Self-paced
- Responsive design features
- Interactive



Learners should be able to complete the course in 8-10 hours.



AAMI Member: \$210

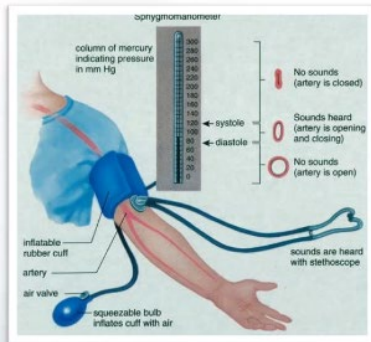
Non-Member: \$265

Certification Prep

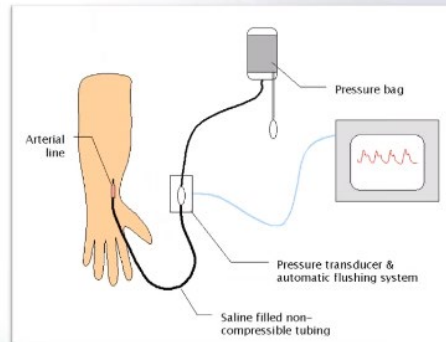
CBET STUDY COURSE – Virtual

Blood Pressure Monitoring

Non-invasive



Invasive



www.aami.org/ac



- Instructor led
- Access to post-module practice exams
- Live/Web-based/Recorded
- Ability interact with instructor



This class consists of eight 2-hour evening sessions over a 4-week period.



AAMI Member: \$240
Non-Member: \$295

Certification Prep

CBET Smart Practice – eLearning

AAMI **amplifire** return

Learning: Electricity and Electronics Fundamentals Chapter 2

QUESTION

Review the image below.

ANSWER

- 3 decibels per decade
- 6 decibels per decade
- YOU WERE SURE AND CORRECT**
20 decibels per decade
- 100 decibels per decade
- I DON'T KNOW YET

[next question](#)

The rolloff characteristic of the filter shown is

- Innovative technology
- Scientifically proven learning techniques
- Self paced
- Responsive design features

The time for completion of this program depends on the learner's existing knowledge




AAMI Member: \$117

Non-Member: \$195

Certification Prep


CHTM Study Course – Virtual


BALANCE SHEET




- A snapshot in time or the status of the company on any particular day.
- Usually shows the companies assets, liabilities, and owners' equity all in an easy to read visual.
- All done on a single page summary.

Balance Sheet	
ASSETS <small>Use of financial resources available (external and internal)</small>	LIABILITIES AND SHAREHOLDERS' EQUITY <small>Company's financial resources origin (external or internal)</small>
<p><small>Fixedly, financed by equity, fixed assets are not consumed or sold during the normal course of a business.</small></p> <ul style="list-style-type: none"> • Fixed Assets: <ul style="list-style-type: none"> • Property, Plant, vehicles and Equipment • Investment in Associates • Intangible assets (copyright, trademark, etc.) • Current Assets: <ul style="list-style-type: none"> • Inventories • Accounts receivable (debtors) • Cash <p><small>Total Assets equal to total liabilities + equity. Assets show how are employed company's financial resources</small></p>	<p><small>Financial resources owned by the company. Higher they are, more the company is financially independent in its business</small></p> <ul style="list-style-type: none"> • Shareholders' Equity: <ul style="list-style-type: none"> • Paid-in Capital • Retained earnings • Reserves • Liabilities: <ul style="list-style-type: none"> • Loans payable • Deposits • Accounts payable • Tax payable • Provisions <p><small>Financial resources owned by external entities (bank, suppliers, tax opt...) better when they represent less than 70% of the total liabilities + equity value.</small></p> <p><small>Total liabilities + equity: sum of company's financial resources</small></p>

-  • Instructor led
- Access to post-module practice exams
- Live/Web-based/Recorded
- Ability interact with instructor

 8 hours of training over 4 evening sessions.

 AAMI Member: \$210
Non-Member: \$265

Chontae Meeks
Sr. Certification Coordinator

cmeeks@aami.org

or

aci@aami.org

Sherrie Schulte, CAE
Vice President, Education

sschulte@aami.org



Thank You!

**Please scan QR
code to submit a
survey for this
session.**

