

Cardiovascular Technology

The Agnes Binder Weisiger Cardiovascular Technology curriculum prepares individuals to develop attributes necessary to perform procedures leading to the diagnosis and treatment of cardiovascular disease.

Course work emphasizes technical and cognitive skills development with application by applying the concepts of echocardiography, exercise stress testing, electrocardiography, cardiac catheterization, blood gases, electrophysiology, cardiovascular anatomy, and physiology.

Graduates selecting the non-invasive track (Cardiac Sonography) are eligible to become a Registered Diagnostic Cardiac Sonographer (RDCS) for the Noninvasive Registry through the American Registry of Medical Sonography (ARDMS) or a Registered Cardiac Sonography (RCS) through Cardiovascular Credentialing International, Inc. (CCI). Graduates selecting the invasive track (Cardiovascular Invasive Specialist) may be eligible for the Invasive Registry to become a Registered Cardiovascular Invasive Specialist (RCIS) through Cardiovascular Credentialing International, Inc. (CCI).

For specific information about potential positions and wages in cardiovascular employment, visit the Central Piedmont Career Coach website.

Cardiovascular Technology (A45170)

Degree Awarded

The Associate in Applied Science Degree Cardiovascular Technology is awarded by the college upon completion of this program.

Admissions

- Complete a Central Piedmont admissions application.
- Admission to the Cardiovascular Technology program is competitive. Please note that, in addition to the college application, students also must complete a separate application to apply specifically for the program.
- The program application is available on the Cardiovascular Technology website.
- Students must be selected to enter the program. Upon acceptance and enrollment in the program, students must take all courses as scheduled and sequenced.

Program Accreditation

Upon the recommendation of the Joint Review Committee on Education in Cardiovascular Technology (JRC-CVT), the Cardiovascular Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) at the associate degree level for two concentrations:

1. Non-Invasive Cardiology (Adult Echocardiography) concentration, and
2. Invasive Cardiology (Invasive Cardiovascular Technology) concentration.

The Commission on Accreditation of Allied Health Education Programs (CAAHEP)
25400 US Highway 19 North

Suite 158, Clearwater, FL 33763
caahep.org
727-210-2350

Notes

In addition to tuition and textbooks, costs of this program include the following: scrubs, lab coat, radiation monitoring badge, CVT patch; student picture ID; a physical examination including drug screening test; immunizations such as tetanus toxoid, hepatitis B vaccinations; TB test; blood test (VDRL, rubella titer, etc.), current CPR certification and criminal back-ground check.

All students must provide a certificate of health and accident insurance. In order to participate in clinical education experiences at health care facilities, students may be required to submit results of a NC state or national criminal background check at their own expense. As a condition of program admission, students may be required to verify that they are United States citizens or are otherwise legally authorized residents of the United States.

All students enrolled in the Cardiovascular Technology program take the same Core courses for the first semester. Upon admission, applicants select either the Invasive or Noninvasive specialty track. Students enroll in Core courses of their specialty track in the fall term of the second year.

Graduates selecting the non-invasive track are eligible for the Noninvasive Registry to become a Registered Diagnostic Cardiac Sonographer. Graduates selecting the invasive track are eligible for the Invasive Registry to become a Registered Cardiovascular Invasive Specialist. Graduates may be employed in hospitals, clinics and cardiology offices. Registry status, in specialty field, is required for employment.

Contact Information

The Agnes Binder Weisiger Cardiovascular Technology program is in the Therapy & Acute Care Division. Division offices are located on 3rd floor in the Belk Wing (BL) of the Health Careers Building on Central Campus.

For an admission packet, frequently asked questions and other information, visit the Cardiovascular Technology website, or call the Program Chair at 704.330.6258 or the Admissions Specialist at 704.330.6284.

Invasive Track

General Education Requirements

ENG 111	Writing and Inquiry	3.0
PSY 150	General Psychology	3.0
Select 3 credits from the following:		3.0
MAT 143	Quantitative Literacy	
MAT 152	Statistical Methods I	
MAT 171	Precalculus Algebra	
ACA 122	College Transfer Success	1.0
Take 3 credits from the following:		3.0
ENG 112	Writing and Research in the Disciplines	
ENG 113	Literature-Based Research	
ENG 114	Professional Research & Reporting	
Select 3 credits of the following:		3.0
ART 111	Art Appreciation	
ART 114	Art History Survey I	
ART 115	Art History Survey II	

DRA 111	Theatre Appreciation
HUM 120	Cultural Studies
HUM 130	Myth in Human Culture
MUS 110	Music Appreciation
MUS 112	Introduction to Jazz
PHI 215	Philosophical Issues
PHI 240	Introduction to Ethics
REL 110	World Religions

Major Requirements

NCT 134	Cardiovascular Anatomy and Physiology	4.0
ICT 113	Electrocardiography	4.0
ICT 110	Invasive Fundamentals	3.0
ICT 136	Cardiac and Peripheral Vascular Invasive I	6.0
ICT 140	Cardiovascular (CV) Hemodynamics I	2.0
ICT 214	Cardiac and Peripheral Vascular Invasive II	9.0
ICT 218	Invasive Pharmacology	2.0
ICT 234	Cardiac and Peripheral Vascular Invasive III	13.0
ICT 236	Cardiovascular (CV) Hemodynamics II	2.0

Other Major Requirements:

Select one of the following: 5.0

BIO 163	Basic Anatomy & Physiology
BIO 168	Anatomy and Physiology I
& BIO 169	and Anatomy and Physiology II

Select 4.0 credits from the following: 4.0

PHY 151	College Physics I	
PHY 110	Conceptual Physics	
PHY 110A	Conceptual Physics Lab	
MED 120	Survey of Medical Terminology	2.0
or MED 121	Medical Terminology I	

Total Credits 72**Non-Invasive Track****General Education Requirements**

ENG 111	Writing and Inquiry	3.0
PSY 150	General Psychology	3.0

Select 3 credits from the following: 3.0

MAT 143	Quantitative Literacy
MAT 152	Statistical Methods I
MAT 171	Precalculus Algebra

ACA 122 College Transfer Success 1.0

Take 3 credits from the following: 3.0

ENG 112	Writing and Research in the Disciplines
ENG 113	Literature-Based Research
ENG 114	Professional Research & Reporting

Select 3 credits of the following: 3.0

ART 111	Art Appreciation
ART 114	Art History Survey I
ART 115	Art History Survey II
HUM 120	Cultural Studies
HUM 130	Myth in Human Culture
MUS 110	Music Appreciation
MUS 112	Introduction to Jazz

PHI 215	Philosophical Issues
PHI 240	Introduction to Ethics
REL 110	World Religions

Major Requirements

NCT 134	Cardiovascular Anatomy and Physiology	4.0
ICT 113	Electrocardiography	4.0
NCT 110	Echo Fundamentals	3.0
NCT 133	Cardiovascular Ultrasound Principles	3.0
NCT 143	Echocardiography I	6.0
NCT 251	Echocardiography II	8.0
NCT 253	Hemodynamic Echocardiographic Principles	3.0
NCT 273	Echocardiography III	14.0

Select one of the following: 5.0

BIO 163	Basic Anatomy & Physiology
BIO 168	Anatomy and Physiology I
& BIO 169	and Anatomy and Physiology II

Select 4.0 credits from the following: 4.0

PHY 110	Conceptual Physics	
PHY 110A	Conceptual Physics Lab	
PHY 151	College Physics I	
MED 120	Survey of Medical Terminology	2.0
or MED 121	Medical Terminology I	

Total Credits 72**No diplomas are offered in Cardiovascular Technology.****No certificates are offered in Cardiovascular Technology.****Cardiovascular Technology Suggested Course Sequences**

The following is the suggested plan for when to take each course to complete the Associate in Applied Science degree, based on the program requirements of the 2024-2025 catalog. This is only a recommendation — you may take courses in another order upon consultation with your advisor. This plan is based on you starting with college-level math and English courses, starting your program in the fall, and attending full-time. You can also follow this sequence if you attend part-time. Speak with your academic advisor about the plan and any questions. This program might also offer diplomas or certificates; visit the catalog or contact the program for details. Visit the Academic Advising page for instructions on locating your assigned advisor: <https://www.cpcc.edu/academics/academic-advising>

Invasive Track

Term I		Credits
ICT 110	Invasive Fundamentals	3.0
NCT 134	Cardiovascular Anatomy and Physiology	4.0
ICT 113	Electrocardiography	4.0
BIO 163	Basic Anatomy & Physiology	5.0
or BIO 168	or Anatomy and Physiology I	
MED 120	Survey of Medical Terminology	2.0
or MED 121	or Medical Terminology I	
ACA 122	College Transfer Success	1.0
Credits		19

Term II		
ICT 136	Cardiac and Peripheral Vascular Invasive I	6.0
ICT 140	Cardiovascular (CV) Hemodynamics I	2.0
ENG 111	Writing and Inquiry	3.0
PHY 110 or PHY 151	Conceptual Physics (and PHY 110A lab) or College Physics I	4.0
MAT 143 or MAT 152 or MAT 171	Quantitative Literacy or Statistical Methods I or Precalculus Algebra	3.0
BIO 169, if BIO 168 taken in Term I		0.0-4.0
Credits		18-22
Term III		
ICT 214	Cardiac and Peripheral Vascular Invasive II	9.0
ICT 218	Invasive Pharmacology	2.0
PSY 150	General Psychology	3.0
ENG 112 or ENG 114	Writing and Research in the Disciplines or Professional Research & Reporting	3.0
Credits		17
Term IV		
ICT 234	Cardiac and Peripheral Vascular Invasive III	13.0
ICT 236	Cardiovascular (CV) Hemodynamics II	2.0
Humanities/Fine Arts		3.0
Credits		18
Total Credits		72-76

Non-Invasive Track

Term I		Credits
NCT 110	Echo Fundamentals	3.0
NCT 134	Cardiovascular Anatomy and Physiology	4.0
ICT 113	Electrocardiography	4.0
BIO 163 or BIO 168	Basic Anatomy & Physiology or Anatomy and Physiology I	5.0
MED 120 or MED 121	Survey of Medical Terminology or Medical Terminology I	2.0
ACA 122	College Transfer Success	1.0
Credits		19
Term II		
NCT 133	Cardiovascular Ultrasound Principles	3.0
NCT 143	Echocardiography I	6.0
ENG 111	Writing and Inquiry	3.0
PHY 110 or PHY 151	Conceptual Physics (and PHY 110A lab) or College Physics I	4.0
BIO 169, if BIO 168 taken in Term I		0.0-4.0
MAT 143 or MAT 152 or MAT 171	Quantitative Literacy or Statistical Methods I or Precalculus Algebra	3.0
Credits		19-23
Term III		
NCT 251	Echocardiography II	8.0
NCT 253	Hemodynamic Echocardiographic Principles	3.0
PSY 150	General Psychology	3.0
ENG 112 or ENG 113 or ENG 114	Writing and Research in the Disciplines or Literature-Based Research or Professional Research & Reporting	3.0
Credits		17
Term IV		
NCT 273	Echocardiography III	14.0
Humanities/Fine Arts		3.0
Credits		17
Total Credits		72-76