

# **CARDIOVASCULAR TECHNOLOGY- INVASIVE CARDIOVASCULAR TECHNOLOGY, Associate in Science Degree - 3510**

*Health Careers Department*

*CIP Code: 51.0901*

The Invasive Cardiovascular Technology AS program prepares students to enter the healthcare profession as Invasive Cardiovascular Technologists. An Invasive Cardiovascular Technologist is a highly specialized and knowledgeable healthcare professional who is educated and trained to perform invasive diagnostic and therapeutic procedures under the direction of the physician to evaluate, diagnose, and treat patients with cardiac disease. The Invasive Cardiovascular Technologist requires specialized technical skills, critical thinking and problem-solving ability, as well as medical knowledge including anatomy, physiology, and pathophysiology to render quality patient care; must be able to correlate related patient data, apply physics principles in order to obtain optimal images for rendering a diagnosis, and develop differential diagnoses based on patient history and examination findings. The curriculum uses didactic, laboratory, and clinical instruction to achieve its goal of preparing students to care for cardiac patients. The program is accredited by the Commission on Accreditation of Allied Health Education Programs. This program requires the student to complete a Pennsylvania Child Abuse History Clearance and/or State Police Criminal Record Check prior to enrollment, prior to the start of a clinical experience, prior to testing and/or obtaining employment. The student should consider this factor before enrolling in this program. If the student has any questions regarding this, he or she should contact the Program Director. Students may complete 75% of this program at the Lancaster Campus through on-campus/in-person instruction. The remaining coursework must be completed through various modalities (e.g., hybrid, synchronous remote instruction and asynchronous instruction).

*Selective Program:* Entry into this program is not guaranteed with admission to the College; this is a selective and competitive admission program; specific admissions criteria must be met. Please go to the Health Careers website ([www.hacc.edu/healthcareers](http://www.hacc.edu/healthcareers)), or contact us by email at [start@hacc.edu](mailto:start@hacc.edu) for specific program entry requirements.

Please note that students interested in this program must begin in the Pre-Health Professions AS degree. Then, students may apply for admission into this program, once they meet the requirements to apply. Students can discuss these admission requirements as part of their advising process.

## *Career Opportunities*

Graduates will be qualified to seek employment as Invasive Cardiovascular Technologies in both diagnostic and interventional facilities, specifically in a Cardiac Catheterization laboratory in a hospital.

## *Competency Profile*

This curriculum is designed to prepare students to:

- Prepare competent entry level cardiovascular technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains for invasive cardiovascular technology
- Be knowledgeable in anatomy, pathology, physiology and technical methods required for entry-level invasive cardiovascular specialists
- Possess problem-solving, critical thinking, and analytical abilities
- Possess the professional and ethical characteristics of a healthcare provider
- Possess effective communication skills
- Demonstrate an understanding of the importance of professional growth, continuing education and professional certification
- Possess the knowledge and skills required of an entry-level invasive cardiovascular specialist

**PROGRAM REQUIREMENTS (TOTAL CREDITS = 66)**

<b>General Education</b>		<b>Major Requirements</b>		<b>Other Required Courses</b>
ENGL 101 English Composition I	3	CVT 101 Intro to Cardiovascular Tech	3	
ENGL 102 English Composition II	3	CVT 102 Cardiovascular Technology Laboratory	1	
COMM 101 Effective Speaking (or)	3	CVT 103 Cardiovascular Technology Clinical Experience	2	
COMM 203 Interpersonal Communication	(3)	CVT 200 Cardiac Pathophysiology	4	
Humanities & Arts Core Elective*	3	CVT 210 Intro to Invasive Cardiovascular Technology	3	
Mathematics Core Elective - <i>MATH 111</i>	3	CVT 211 Radiation Safety/ Invasive Instrumentation	2	
Mathematics or Science Core Elective - <i>BIOL 122</i>	4	CVT 212 Invasive Cardiovascular Procedures	3	
Science w/ a Laboratory Core Elective - <i>BIOL 121</i>	4	CVT 213 Invasive Instrumentation Lab	2	
Social & Behavioral Science Core Elective	3	CVT 214 Interventional Cardiac Procedures	4	
First-Year Seminar Elective - <i>CVT 100</i>	3	CVT 215 Invasive Clinical Practicum I	4	
Wellness Elective	1	CVT 216 Congenital Heart Disease	1	
	<b>30</b>	CVT 217 Invasive Practicum Clinical II	5	
		CVT 218 Cardiovascular Pharmacology	2	
			<b>36</b>	

\*Students are to select courses from the following: ART 181, 182; ENGL 206; FMTH 101; HUM 101, 115, 201; MUS 104; PHIL 200; SPAN 104; or a foreign language course.

**Note:** Students must complete the following courses with a minimum grade of C to graduate: BIOL 121, 122 and all of the CVT courses.

**RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS**

Part-time students can complete this program by taking one or more courses each semester.

<b>Fall Semester I</b>		<b>Spring Semester I</b>		<b>Summer I</b>		<b>Fall Semester II</b>		<b>Spring Semester II</b>	
BIOL 121	4	BIOL 122	4	CVT 103	2	CVT 200	4	CVT 210	3
CVT 100	3	COMM 101 or 203	3	ENGL 102	3	CVT 218	2	CVT 211	2
ENGL 101	3	CVT 101	3	Wellness Elective	1	Humanities/Arts Core Elective*	3	CVT 212	3
MATH 111	3	CVT 102	1			Social/Behavioral Core Elective	3	CVT 213	2
<b>Summer II</b>		<b>Fall Semester III</b>							
CVT 214	4	CVT 216	1						
CVT 215	4	CVT 217	5						