Bachelor of Science Degree in Cardiopulmonary Sciences (BSCARDIO)

2025

Admission requirements are subject to change.

Priority Application Deadline	Classes Begin*
June 15th	Fall Term - August
October 15th	Spring Term - January
March 1st	Summer Term - May

ABOUT THIS LIMITED-ACCESS PROGRAM

The **Cardiopulmonary Sciences** Bachelor of Science (B.S.) degree at Valencia College provides an opportunity for A.S. degree Respiratory Therapists (RRT) and Cardiovascular Technologists (RCIS or RCES) to further their education and increase their potential for career advancement. The curriculum offers advanced courses in the cardiopulmonary system, the healthcare system and an introduction to research, leadership and education. See the Concentration options that follow in this document.

Valencia's B.S. Cardiopulmonary Sciences (BSCARDIO) degree program is a limited access program and *admission to Valencia does not guarantee acceptance to the program*. Program applicants must also submit documentation of their active professional health credential. Applicants must hold an eligible degree from a regionally accredited institution and a current eligible professional credential from NBRC, CCI or ARDMS. Students are admitted to begin the program each term and applications are accepted on an ongoing basis. ***Although an application submitted prior to a priority application deadline is more likely to be processed for the upcoming term, applications can be submitted after the priority deadline***. This is an online program designed for working professionals. **Students must complete at least 32 required degree credits at Valencia to be awarded this degree.**

***** https://valenciacollege.edu/academics/calendar/

PROGRAM ADMISSION AND ACCEPTANCE CHECKLIST

____ 1. Be a U.S. citizen or a U.S. permanent resident or in a non-immigrant category other than F or J visa categories.

____ 2. Review this BSCARDIO program guide and the overview and program requirements in the online Valencia catalog: catalog.valenciacollege.edu/degrees/bachelorofscience/astobscardiopulmonarysciences/.

____ 3. Submit a completed Valencia application for admission using the *Bachelor's Degree & ATC* application (https://valenciacollege.edu/admissions/apply.php) and be in Active student status. First-time Valencia bachelor's program applicants must create a new application account.

____ 4. Submit the documentation to request Florida Residency for tuition purposes.

____ 5. Have a minimum overall college GPA of 2.5 with minimum grades of C in the prerequisite coursework.

____ 6. Submit official transcripts from all prior colleges and universities with one denoting completion of an Associate degree in Respiratory Care or Cardiovascular Technology or Cardiopulmonary Technology from a regionally accredited institution.

____ 7. Have a minimum of 70 accepted credits ***including*** the following General Education prerequisite coursework:

- ENC 1101 Freshman Composition+ 3 credits
- Mathematics See General Education Requirement+ 3 credits
- BSC 2093C **or**
  BSC X085C Anatomy & Physiology I+ 4 credits
- BSC 2094C **or**
  BSC X086C Anatomy & Physiology II+ 4 credits
- MCB 2010C Microbiology+ 4 credits

+ This course must be completed with a minimum grade of C.

____ 8. Receive notification from the Valencia Admissions Office of your *admission as a candidate* for the B.S. in Cardiopulmonary Sciences.

____10. After receiving notification of college admission as a *candidate* for the Bachelor of Science, *then send a MyVC email containing both your VID and a clear, legible copy of your active:* Registered Respiratory Therapist (RRT) credential from the National Board for Respiratory Care ***or*** one of the following active credentials from the Cardiovascular Credentialing International: Registered Cardiovascular Invasive Specialist (RCIS), Registered Cardiac Electrophysiology Specialist (RCES), Registered Congenital Sonographer (RCS), Registered Congenital Cardiac Sonographer (RCCS) or Registered Vascular Sonographer (RVS) to AlliedHealthBS.ATC@valenciacollege.edu . ***Your professional credential must remain current throughout your program enrollment.***

Following program acceptance and registration notification from the School of Allied Health, if you have not done so, complete the fully online B.S. Degree Orientation through your Atlas account. If assistance is needed relative to course selection, registration and/or getting started in the program, confer with the School of Health Sciences, Allied Health Bachelor-Level Advisor at the email address above.

COST

The estimated total cost for the B.S. in Cardiopulmonary Sciences degree, including Florida Resident tuition for the 58 credits of program requirements, distance learning fee for the 58 credits of program requirements, special course fees, and associated expenses is approximately $7900. *This estimate does not include books.*

ADDITIONAL PATHWAYS TO THE B.S. IN CARDIOPULMONARY SCIENCES

If you do not hold an associate degree or professional certification in Respiratory Care or Cardiovascular Technology or Cardiopulmonary Technology from a regionally accredited institution, Valencia offers Associate in Science degrees in Respiratory Care and in Cardiovascular Technology. The Program Guides for these programs are available via https://valenciacollege.edu/academics/departments/health-sciences/allied-health/

If you hold the RCIS, RCES, RCS, RCCS, or RVS credential from the Cardiovascular Credentialing International (CCI) but do not hold an associate degree in Cardiovascular Technology, you may be eligible to earn Valencia's A.S. Degree in Cardiovascular Technology via the Award of Credit process. If so, you would complete specific courses at Valencia and then, based on your professional credential, you would be granted college credit for the required Cardiovascular Technology courses and be awarded the A.S. Degree in Cardiovascular Technology. The college's Award of Credit eligible programs can be found on the webpage https://valenciacollege.edu/academics/programs/as-degree/credit-industry-certification-agreements.php

If you hold the RRT credential from the National Board for Respiratory Care (NBRC) but do not hold an associate degree in Respiratory Care, you may be eligible to earn Valencia's A.S. Degree in Respiratory Care via the Award of Credit process. If so, you would complete specific courses at Valencia and then, based on your professional credential, you would be granted college credit for the required Respiratory Care courses and be awarded the A.S. degree in Respiratory Care. For more information on this program, please access the webpage https://valenciacollege.edu/academics/programs/as-degree/credit-industry-certification-agreements.php

DEGREE CONCENTRATIONS

When you apply to the BSCARDIO, you will need to declare one of the three degree concentrations: Advanced Critical Care, Community Health; or Leadership. As reflected in the program curriculum that follows, 10 of your degree credits will be determined by the concentration you declare.

Advanced Critical Care

This concentration will build on students' critical care knowledge and focus on the clinical application of advanced cardiopulmonary interventions and diagnostic techniques. An exploration of evidence-based research in the field will help to facilitate better clinical decisions and improved patient outcomes. Knowledge gained in the concentration will be applied to a capstone project that can be

applied in the critical care or interventional setting. Through applying evidence-based critical care practice and research, critical care project development, and clinical application of advanced cardiopulmonary critical care interventions in the program, this concentration helps prepare RRTs for the NBRC Adult Critical Care specialty exam.

Community Health

This concentration will focus on concepts of health and wellness, with an emphasis on the implementation of community health interventions. Students will gain an understanding of the impact of public health measures, the health care delivery system on community health, and clinical approaches for prevention and treatment of chronic disease. This knowledge may be applied to patient education and wellness programs in acute, non-acute and community environments. Knowledge gained in this concentration will be applied to develop a community health capstone project that can be applied to a cardiopulmonary community health program.

Leadership

This concentration will help students develop the knowledge and skills needed to function effectively in a leadership role in health care. Students will gain an understanding of how an organization functions, the role of human resources, along with the supervisory and management theories that can be applied to their respective health profession. Knowledge gained in this concentration will be applied to develop a capstone project that can be applied to leadership challenges in the student's own healthcare environment.

CONTINUING EDUCATION (CEUs)

Courses completed in the BSCARDIO Program may be reported for Continuing Education (CEUs), based on the guidelines of your credentialing or licensing body. Based on the State Board of Respiratory Care guidelines, a 3-credit college course in the Cardiopulmonary Sciences is equivalent to 45 CEUs. Cardiovascular Credentialing International (CCI) accepts CEUs from approved providers and Valencia College is an approved continuing education provider. CCI should be consulted with any questions relating to CEUs for CVTs completing the BSCARDIO degree.

AWARD OF CREDIT OPTIONS

You may be able to **earn credits toward the BSCARDIO degree via the Award of Credit process**. If you hold a specific advanced **professional credential(s) beyond the primary level with CCI or NBRC** and want to **receive course credit** for this credential(s), you will be able to request this credit after you complete 18 upper-division degree credits. To learn more about the Award of Credit options, visit https://valenciacollege.edu/academics/programs/as-degree/credit-industry-certification-agreements.php and scroll to Cardiopulmonary Sciences. **You should check with the program advisor to be sure you will still have 32 Valencia degree credits if you request this Award of Credit.**

Degree Requirements

B.S. in Cardiopulmonary Sciences

2025-2026

VALENCIA B.S. GENERAL EDUCATION EXIT REQUIREMENTS		Credits
ENC 1102	Freshman Composition II+	3
SPC 1608	Fundamentals of Speech **OR**	
SPC 1017	Interpersonal Communication	3
Gen Ed	Elective: any un-used, not required, general education course	3
Humanities	A Core Humanities	3
Mathematics	A General Education Gordon Rule Course+	3
Social Science	An Institutional Gordon Rule General Education Course+	3

Plus, General Education Core courses if not completed prior to admission to the BSCARDIO. Choices for General Education courses are found at http://catalog.valenciacollege.edu/degrees/bachelorofscience/generaleducation/

Foreign Language Proficiency Requirement (Options follow)		8

PROGRAM CORE COURSES	(30 Credits)	
RET 3287	Cardiopulmonary Diagnostics I+	3
RET 3536	Cardiopulmonary Rehabilitation	3
RET 3715	Neonatal Medicine	3
RET 3354	Medical Pharmacology	3
HSC 4555	Pathophysiologic Mechanisms	3
HSC 4640	Health Law and Compliance*	3
HSC 4652	Ethics and Health Care in a Pluralistic Society	3
HSA 4184	Leadership in Health Care	3
HSA 3702	Research Methods and Information Literacy	3
	Cardiopulmonary Sciences Elective (Choose one below)	3

HSA 4340 Principles of Human Resources Management+
HSA 4502 Health Care Risk Management+
HSC 4500 Epidemiology+
RET 4034 Health Care Delivery and Access+
RET 4524 Community Health and Wellness+
RTE 3205 Administration and Supervision+
RTE 3253 Teaching in the Health Professions+

SELECT ONE CONCENTRATION (10 Credits)

Concentration: Advanced Critical Care

RET 3269	Advanced Cardiopulmonary Critical Care+	3
RET 3444	Introduction to Cardiac and Chest Ultrasound+	3
RET 4931	Special Topics in Evidence-Based Critical Care+	2
RET 4950	Advanced Critical Care Capstone+*	2

Concentration: Community Health

RET 4524	Community Health+	3
HSC 4500	Epidemiology+	3
RET 4034	Problems in Patient Management+	3
RET 4940	Community Health Capstone+*	1

Concentration: Leadership

HSA 4110	Organizational Behavior+	3
HSA 4340	Principles of Human Resources Management+	3
HSA 4341	Conflict Management in Healthcare+	3
HSA 4850	Healthcare Leadership Capstone+*	1

+ This course must be completed with a grade of C or better.
* This course has a prerequisite or co-requisite; check description in Valencia Catalog.

FOREIGN LANGUAGE PROFICIENCY REQUIREMENT

Two years of one foreign language or American Sign Language in high school; or English as a Second Language courses in college plus certain English communication courses in college; or one year of foreign language in college; or equivalent proficiency prior to graduation.

GRADUATION REQUIREMENTS

- Earn a minimum 2.0 Valencia GPA and minimum overall 2.0 GPA.
- Earn a minimum grade of C (2.0) in all prerequisite and upper division courses.
- Satisfy Valencia's General Education requirements and Gordon Rule requirements unless you hold an Associate in Arts or Bachelor's degree or have completed the entire General Education program at a regionally accredited institution.
- Satisfy the State of Florida's Civic Literacy Competency as per Florida Rule 6A-10.04213
- Complete at least 40 semester credits of upper division course work.
- Complete at Valencia at least 25% of the 128 hours degree program (32 credits), based upon the Florida College System's requirement of a 2+2 admission into the baccalaureate program.
- Obtain a degree audit through your Atlas account and review it for readiness to submit your application for graduation.
- Submit an application for graduation online through Atlas by the deadline date listed in the Academic Calendar in the online official catalog. You must have at least the minimum number of college-level credits for your degree, including all courses for which you are registered, in order to submit a graduation application.
- Fulfill all financial obligations to Valencia.
- Complete two years of one foreign language or American Sign Language in high school or one year of foreign language in college (or equivalent proficiency prior to graduation).
- Minimum Total Semester Credits Required for the degree: 128

Notes:

Specialized courses may not be offered every session.

Transfer Notes:

- Students who hold an A.A. or bachelor's degree from a regionally accredited institution have satisfied Valencia's general education program requirements.
- Students transferring from a regionally accredited Florida public institution with the general education program (GEP) requirements of that institution met have thereby satisfied Valencia GEP requirements.
- 1000 and 2000 level courses do not substitute for upper division 3000 – 4000 level courses.

Registration Note:

- Once a student has been approved as "Course Registration Eligible," it is the student's responsibility to secure enrollment in the desired course(s).

State of Florida's Civic Literacy Competency:

Satisfy the civic literacy requirement. As per Florida Rule 6A-10.04213*, prior to the award of an associate in arts or baccalaureate degree, students initially entering a Florida College System institution in the 2021-22 school year, and thereafter must demonstrate competency in civic literacy prior to graduation by:

a. receiving a passing score on the Florida Civic Literacy Exam (FCLE), and
b. successful completion of one of the following:

- successfully passing POS 2041 U.S. GOVERNMENT. or AMH 2020 U.S. HISTORY 1877 TO PRESENT or AMH 2010 U.S. HISTORY TO 1877
- successfully passing a prescribed assessment:
  AP Government & Politics: United States Test* (passing score =3), or
  AP United States History Test* (passing score = 4), or
  CLEP American Government* (passing score = 50)
  *receiving a passing score will satisfy both the FCLE and course requirements.

Rulemaking Authority 1001.02(1), 1007.25(5)(a)-(b) FS. Law Implemented 1007.25 FS. History–New 6-19-18, Amended 11-23-21.

SCHOOL OF ALLIED HEALTH PROGRAM GUIDELINES

FOR THE B.S. in CARDIOPULMONARY SCIENCES (BSCARDIO)
AND
THE ADVANCED TECHNICAL CERTIFICATE in ECHOCARDIOGRAPHY

Valencia's Health Sciences programs are offered through the School of Allied Health and the School of Nursing, which provide information about specific admission criteria for the programs. The Allied Health Program Guides, of which this is one, are developed for a specific academic year (August to July) and, as a rule, changes to admission and program requirements become effective at the start of an academic year; however, **Valencia College reserves the right to make changes in admission and program requirements as circumstances require.**

You may apply to only one bachelor's-level Allied Health program at a time and enrollment is limited to only one Allied Health program in a term.

MyVC EMAIL
All communication from Valencia relative to program admission will be via your **MyVC email**. Written communication you send to Valencia staff should also be via your MyVC email and should include your name and your Valencia ID number.
.
MANDATORY ORIENTATION
Following acceptance to the B.S. in Cardiopulmonary Sciences, to register, you must have completed the online Bachelor's Orientation through your MyVC account. If you have not, there will be a hold on your record that will prevent registration until you complete the Bachelor's Orientation.

ONLINE PROGRAM/TESTING

The BSCARDIO is an online program. Valencia College utilizes Honorlock, an online exam proctoring service, to promote academic integrity during online testing.