

CARDIOVASCULAR TECHNOLOGY, B.S.

The Bachelor of Science degree with a major in cardiovascular technology is awarded upon the following:

1. satisfactory completion of at least 100 semester hours of academic work, including all courses prescribed in the curriculum below;
2. satisfactory completion of an intensive CVT training program, accredited by the Joint Review Committee on Education in Cardiovascular Technology.

Admission and Retention Standards for Cardiovascular Technology

Admission to CVT training programs is very competitive, and only a limited number of candidates can be admitted in each class. For this reason the following retention standards are applied during the academic portion of this program at USC:

- Retention. Progressive GPA standards are enforced for continuation in the program. Upon completion of 30 credit hours a minimum GPA of 2.50 is required; at 60 credit hours a minimum GPA of 2.75 is required. Upon completion of the specified academic requirements, only students who have gained admission into an approved CVT training facility will be retained in the program.
- Transfer students admitted to this degree program must complete the last 30 credit hours of academic work in residence at the University of South Carolina prior to entering the intensive CVT training program.
- Students who have already completed a CVT training program or CVT internship will not be eligible for acceptance into this major.

Learning Outcomes

- Student demonstrates oral skills and knowledge by communicating effectively in spoken English.
- Student will be evaluated after completion of the academic portion of the Internship.
- Student will be evaluated monthly during the clinical portion of the internship.
- At the completion of the program of study, the student will be eligible to sit for the national registry exam. From the lecture, laboratory and clinical rotations, the student will demonstrate competency in one of more areas of Cardiovascular Technology.

Admissions

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Degree Requirements (128 hours)

Program of Study

Requirements	Credit Hours
1. Carolina Core	32-44
2. College Requirements	12-15
3. Program Requirements	16-26
4. Major Requirements	58

1. Carolina Core Requirements (32-44 hours)

CMW – Effective, Engaged, and Persuasive Communication: Written (6 hours)

must be passed with a grade of C or higher

any CC-CMW courses (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/carolina-core-courses/>)

ARP – Analytical Reasoning and Problem Solving (6-8 hours)

- MATH 122 or MATH 141
- STAT 201 (or equivalent) or higher

SCI – Scientific Literacy (8 hours)

must be passed with a grade of C or higher

- PHYS 201 & PHYS 201L
- PHYS 202 & PHYS 202L

GFL – Global Citizenship and Multicultural Understanding: Foreign Language (0-6 hours)

Demonstration of proficiency in one foreign language equivalent to the minimal passing grade on the exit examination in the 122 course is required. Students can demonstrate this proficiency by successfully completing Phase II of the Proficiency Test or by successfully completing the 122 course, including the exit exam administered as part of that course.

CC-GFL courses (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/carolina-core-courses/>)

It is strongly recommended that students continuing the study of a foreign language begin college-level study of that language in their first semester and continue in that language until their particular foreign language requirement is completed.

GHS – Global Citizenship and Multicultural Understanding: Historical Thinking (3 hours)

any CC-GHS course (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/carolina-core-courses/>)

GSS – Global Citizenship and Multicultural Understanding: Social Sciences (3 hours)

any CC-GSS course (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/carolina-core-courses/>)

AIU – Aesthetic and Interpretive Understanding (3 hours)

any CC-AIU course (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/carolina-core-courses/>)

CMS – Effective, Engaged, and Persuasive Communication: Spoken Component ¹ (0-3 hours)

any overlay or stand-alone CC-CMS course (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/carolina-core-courses/>)

INF – Information Literacy ¹ (0-3 hours)

any overlay or stand-alone CC-INF course (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/carolina-core-courses/>)

VSR – Values, Ethics, and Social Responsibility ¹ (0-3 hours)

any overlay or stand-alone CC-VSR course (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/carolina-core-courses/>)

¹ **Carolina Core Stand Alone or Overlay Eligible Requirements** – Overlay-approved courses offer students the option of meeting two Carolina Core components in a single course. A maximum of two overlays is allowed. The total Carolina Core credit hours must add up to a minimum of 31 hours. Some programs may have a higher number of minimum Carolina Core hours due to specified requirements.

2. College Requirements (12-15 hours)

Foreign Language (0-3 hours)

only if needed to meet 122-level proficiency

Analytical Reasoning (3 hours)

Course	Title	Credits
CSCE 102	General Applications Programming	3
Total Credit Hours		3

History (3 hours)

The College of Arts and Sciences requires one U.S. History and one non-U.S. History course. Whichever is not fulfilled through the Carolina Core GHS requirement must be fulfilled through this college requirement. Accordingly, please select one of the following:

- One Carolina Core GHS-approved course (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/carolina-core-courses/>) primarily focused on U.S. History: HIST 111, HIST 112, HIST 214, or another GHS-approved course determined by the College of Arts and Science to fit this geographic category.
or
- One Carolina Core GHS-approved course primarily focused on non-U.S. History: HIST 101, HIST 102, HIST 104, HIST 105, HIST 106, HIST 108, HIST 109, GERM 280, FAMS 300, or another GHS-approved

course determined by the College of Arts and Sciences to fit this geographic category.

Social Science and Fine Arts or Humanities (6 hours)

- CLAS 230
- Courses Acceptable for Social Science and Fine Arts or Humanities Credit in Degree Programs in the College of Arts and Sciences (<https://academicbulletins.sc.edu/archives/2020-2021/undergraduate/arts-sciences/courses-acceptable-social-science-fine-arts-humanities/>) (3 hours of Social Science)

3. Program Requirements (16-26 hours)

Supporting Courses (16 hours)

Must be passed with a grade of C or higher.

Course	Title	Credits
BIOL 101	Biological Principles I	3
BIOL 101L	Biological Principles I Laboratory	1
BIOL 102	Biological Principles II	3
BIOL 102L	Biological Principles II Laboratory	1
CHEM 111	General Chemistry I	3
CHEM 111L	General Chemistry I Lab	1
CHEM 112	General Chemistry II	3
CHEM 112L	General Chemistry II Lab	1
Total Credit Hours		16

Cognate (0 hours)

Intensive Clinical Training Program: The 18-month intensive clinical training program replaces the cognate.

Electives (0-10 hours)

No courses of a remedial, developmental, skill-acquiring, or vocational nature may apply as credit toward degrees in the College of Arts and Sciences. The College of Arts and Sciences allows the use of the Pass-Fail option on elective courses. Further clarification on inapplicable courses can be obtained from the College of Arts and Sciences.

4. Major Requirements (58 hours)

A minimum grade of C is required in all major courses.

Major Courses (26 hours)

Course	Title	Credits
BIOL 302	Cell and Molecular Biology	3
BIOL 303	Fundamental Genetics	3
BIOL 415	Comparative Vertebrate Anatomy	4
BIOL 460	Advanced Human Physiology	3
BIOL 460L	Advanced Human Physiology Laboratory	1
BIOL 541	Biochemistry	3
BIOL 541L	Biochemistry Laboratory	1
CHEM 333	Organic Chemistry I	3
CHEM 331L	Essentials of Organic Chemistry Laboratory I	1
CHEM 334	Organic Chemistry II	3
CHEM 332L	Essentials of Organic Chemistry Laboratory II	1
Total Credit Hours		26

Major Electives (4 hours)

Course	Title	Credits
Select four hours from the following:		4
BIOL 302L	Cell and Molecular Biology Laboratory	
BIOL 505	Developmental Biology	
BIOL 530	Histology	
CHEM 321	Quantitative Analysis	
BIOL 620	Immunobiology	
CHEM 321L	Quantitative Analysis Laboratory	
Total Credit Hours		4

CVT Training (28 hours)

Following the academic portion of the Cardiovascular Technology Program, an 18 months clinical training program in an approved facility¹ will be the final stage of the degree program. Students will be awarded 28 credit hours upon completion of the clinical portion of the training.

Students who have already completed a CVT training program or CVT internship will not be eligible for acceptance into this major.

¹ In an approved facility

Major Map

A major map is a layout of required courses in a given program of study, including critical courses and suggested course sequences to ensure a clear path to graduation.

Major maps are only a suggested or recommended sequence of courses required in a program of study. Please contact your academic advisor for assistance in the application of specific coursework to a program of study and course selection and planning for upcoming semesters.

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