

CARDIOVASCULAR PERFUSION PROGRAM

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The perfusionist provides consultation to the physician in the selection of the appropriate equipment and techniques to be used during extracorporeal circulation. During cardiopulmonary bypass, the perfusionist provides life support to the patient while the heart and lungs are stopped to enable the surgeon to operate. Perfusionists administer blood products, anesthetic agents and drugs through the extracorporeal circuit. The perfusionist is responsible for the induction of hypothermia and other duties, when required. Perfusionists have a role in the implementation and operation of ventricular assist devices designed to provide long-term circulatory support for the failing heart.

You will learn to operate the equipment perfusionists use to support or replace a patient's heart and lung functions during cardiac surgery and to monitor vital cardiopulmonary signs to keep the patient stable. You'll also learn to administer the appropriate medications and anesthesia during surgery.

Our program is one of only eight in the nation that offers graduate-level training in this profession. As cardiovascular disease becomes increasingly common, the employment opportunities in this field continue to expand, and we prepare you to enter the workforce with a competitive advantage.

A strong sense of responsibility and the capacity to work effectively with other professionals in a high-pressure environment are essential qualities of successful cardiovascular perfusionists. You'll acquire both during group activities and clinical work. Plus, you'll learn in our technologically sophisticated Center for Medicine, Nursing and Health Sciences.

This program is fully accredited by the Accreditation Committee—Perfusion Education (6663 S. Sycamore St., Littleton, CO 80120) under the Commission on Accreditation of Allied Health Education Programs.

MHS in Cardiovascular Perfusion Curriculum

Course	Title	Credits
First Year		
Fall Semester		
College-based didactic course work:		
PA 535	Disease Mechanisms	4
PR 500	Theoretical Foundations of Cardiovascular Perfusion	2
PR 502	Systems Anatomy and Physiology I	3
PR 508	Extracorporeal Circuitry and Laboratory I	1
PR 516	Physiologic Monitoring	4
Credits		14
Spring Semester		
PR 503	Systems Anatomy and Physiology II	3
PR 506	Pharmacologic Intervention in Cardiovascular Perfusion	4
PR 509	Extracorporeal Circuitry and Lab II	1

PR 510	Surgical Techniques	2
PR 512	Pediatric Perfusion	4
Credits		14

Second Year

Summer Semester

Hospital-based clinical training session:		
PR 600	Clinical Practicum I	5
PR 520	Research Methods in Cardiovascular Perfusion	2
Credits		7

Fall Semester

PR 602	Clinical Practicum II	5
PR 522	Research Methods in CV Perfusion II	2
Credits		7

Spring Semester

PR 604	Clinical Practicum III	5
PR 514	Special Topics in Cardiovascular Perfusion	2
Credits		7
Total Credits		49

During the first two didactic semesters, students are introduced to the operating room environment by weekly orientation sessions in one of several affiliated hospitals. Students are required to join the American Society of Extracorporeal Technology and maintain student membership for the duration of the program.

Failure to maintain a 3.0 minimum GPA in all didactic and clinical semesters will result in automatic dismissal from the program. Students must also successfully complete all clinical practicums to graduate from the program.

Mission Statement

The School of Health Sciences offers a Master of Health Science in Cardiovascular Perfusion program. The mission of the program is to:

1. provide excellent education in both the didactic and clinical learning environment;
2. provide research opportunities that contribute to the clinical and scientific knowledge base in the field of extracorporeal circulation; and
3. foster a sense of commitment to continuing education and professional development.

This mission is consistent with the mission of Quinnipiac University, which is to provide a supportive and stimulating environment for the intellectual and personal growth of undergraduate, graduate and continuing education students.

Admission

Interested candidates must have earned a bachelor's degree from a regionally accredited institution in the U.S. or Canada. Scores for the tests of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) are required if the applicant is from a non-English speaking country. Applicants must have the following course prerequisites:

- two semesters of basic biology (or equivalent)
- two semesters of anatomy and physiology
- two semesters of general chemistry

- one semester of physics
- one semester of microbiology
- one semester of college algebra or calculus
- certification in Basic Life Support from the American Heart Association

Website: [caahep.org \(http://www.caahep.org\)](http://www.caahep.org)

Applicants to the program should have a strong background in the health sciences, and be able to work for long periods under intense conditions. Individuals already working in the fields of nursing, respiratory care, physician assistant, physical therapy, paramedical and biomedical engineering are ideally suited for admission into the program.

Applicants must have a minimum undergraduate cumulative GPA of 3.0, and at least two years of experience working in a health care field involving patient care.

Applications can be obtained from the Office of Graduate Admissions. Applicants should refer to the graduate admission requirements found in this catalog.

A detailed autobiography of personal, professional and educational achievements, and two letters of recommendation must accompany the student's application.

All applications, transcripts, reference letters and supporting materials must be submitted to the Office of Graduate Admissions.

Admission to the program is competitive. Personal interviews, required for admission, are offered to the most qualified candidates.

The curriculum for the professional courses in the program are subject to modification as deemed necessary to maintain a high-quality educational experience and keep current with best practices in the profession.

Background Check and Drug Screen

To ensure their safety and maintain high-quality care of patients, clinical affiliates of the university require students to have a criminal background check and drug screen. All students entering the Quinnipiac University Cardiovascular Perfusion program are required to undergo a criminal background check and drug screen (through the university vendor) prior to beginning classes and prior to beginning the clinical year. This is a mandatory component of the program. In addition, Cardiovascular Perfusion students may be required to undergo a criminal background re-check and/or a drug screen prior to any of their clinical rotations. The results are made available to the student through their own personal and secure online portal. Whenever a Quinnipiac University Cardiovascular Perfusion student may need proof of criminal background check for clinical rotations and/or to be eligible to sit for their certification exam, the student will release the information directly from their personal portal to the clinical site. The cost of the criminal background check and any re-checks and/or drug screens is the responsibility of each individual student.

The Cardiovascular Perfusion program is accredited by:

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 North, Suite 158
Clearwater, FL 33763

Phone: 727-210-2350

Fax: 727-210-2354