Program Information
Cardiovascular sonography is the diagnosis and treatment of patients with diseases of the heart and blood vessels. The primary role of the cardiovascular sonographer is to obtain ultrasound images of the heart and blood vessels for the physician to interpret. The various types of ultrasound equipment require a highly skilled operator to obtain the imaging information required. Students who complete the cardiovascular sonography program will be able to perform noninvasive cardiovascular tests on patients and evaluate the exam to assist a physician in arriving at a diagnosis. Students in the two-year degree program spend time in the classroom as well as getting hands-on experience in a clinical setting to develop an understanding of the anatomy, physiology, pathology, and disease testing of the cardiovascular system. Cardiovascular sonography requires good eyesight, hearing, manual dexterity, verbal communication skills, and ambulatory skills.

Applicants may complete non-CVS and non-SON courses prior to acceptance into the program.

The CVS program is offered on the Caldwell Campus in Hudson, NC. Some cardiovascular sonography classes meet in the evening with clinical placement during the day. Applicants should be aware that travel in out-of-service areas may be required for field work.

To insure the public health and safety of all clients, many of our clinical affiliation sites require personal criminal background checks and/or drug screening in order for the student to participate in clinical education at that site.

Most disciplines of Health Sciences require registration, certification or licensure to practice in the health care field. Most examining boards require proof of good moral character to apply to take the registration, certification or licensure examination. If you have further questions, please contact the American Registry of Diagnostic Medical Sonographers at 1-800-541-9754.

Admissions Process
Cardiovascular Sonography is a two-year associate degree program with a limited class size. Acceptance into the program is first-come, first-served based upon completion of ALL admissions requirements. Approximately 7-9 students are accepted into the program each year. Other eligible students remain on a waiting list for future admittance Students are notified of their acceptance during the month of October to begin the program the following August.

***Refer to NOTIFICATION PROCEDURE section of this document for more details***
Admission Requirements

The following requirements must be completed no later than October 1, 2017, before an applicant can be considered for admission to the program beginning in the 2018 fall semester.

1. **CCCTI application**
   Submit an application to Student Services.
   Applications are available in Student Services or on-line at www.cccti.edu.

2. **Official documentation of high school graduation/high school equivalency**
   This documentation is required even if the applicant holds a four-year degree.
   A high school graduate should request an official transcript to be sent to CCCTI indicating date of graduation. If the applicant is still in high school, an official transcript should be sent now only if SAT/ACT scores are to be used to waive the college placement tests; otherwise, an official transcript should be submitted after graduation.
   Applicants with a high school equivalency must provide official documentation to CCCTI from the granting institution.
   Reproduced copies of personal documents are not acceptable.
   Request forms to obtain transcripts are available in the Student Services office at CCCTI.

3. **Official transcripts of any college work**
   The applicant should request colleges to mail transcripts directly to CCCTI.
   If currently enrolled at another college, he/she should request a transcript now and another one at the completion of his courses.
   Transcript request forms are available in Student Services or may be downloaded from the college webpage, www.cccti.edu.
   College transcripts must be received and evaluated in order to exempt the applicant from placement tests.

4. **Placement tests**
   Placement tests are given at the Testing Center at CCCTI in Hudson or at the Watauga Campus. Please contact the Testing Centers directly for testing appointments.
   Any applicant whose placement test scores fall below the required minimum for the CVS program must take the indicated developmental course(s). An applicant must complete all required developmental courses before the CVS Consideration Date will be given.

   Minimum acceptable North Carolina Diagnostic Assessment and Placement (NCDAP) scores for the CVS program and the corresponding exempted developmental courses:

<table>
<thead>
<tr>
<th>NCDAP</th>
<th>Exempted Developmental Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Reading Assessment</td>
<td>DRE 096; DRE 097; DRE 098</td>
</tr>
<tr>
<td>Math Assessment</td>
<td>DMA 010; DMA 020; DMA 030; DMA 040; DMA 050 &amp; DMA 060</td>
</tr>
</tbody>
</table>

   Applicants may be exempt from College Placement Tests by meeting one of the following:

   - English/Reading Exemption: ACT Reading 22 OR ACT English 18
     SAT Writing 500 OR SAT Critical Reading 500
   - Math/Algebra Exemption: ACT Math 22 OR SAT Math 500

   **March 2016 and Future**
   - English/Reading Exemption: ACT Reading 22 OR ACT English 18
     SAT Evidence Based Reading and Writing 480
   - Math/Algebra Exemption: ACT Math 22 OR SAT Math 530

   Placement tests may be waived for persons who provide official documentation of transferable college credit that shows proficiency in reading, English and math.
Multiple Measures (only applies to high school graduates from 2011 to present) – Unweighted GPA ≥ 2.6 and completion of 4 math courses. Eligible 4th math courses are listed on the NCCCS document: Eligible 4th High School Math Courses for Multiple Measures Placement.

5. **Information session**

Watch the Sonography Information Session on the college webpage to receive current details regarding admission, academic, and program requirements.

The Information Session is located at this link from the medical sonography program webpage: [http://www.cccti.edu/Sonography/SonInfo01.asp](http://www.cccti.edu/Sonography/SonInfo01.asp).

Answer the quiz questions at the end of the power point presentation. The Information Session quiz answers must be completed and returned to the Health Sciences Admissions Office.

6. **Clinical site visit**

Please request this appointment after placement test requirements and all needed developmental classes have been completed.

This visit is intended to familiarize the applicant with the actual day-to-day responsibility of a person employed in cardiovascular sonography.

The applicant must contact Ruthie Price at 828-726-2708 or rprice@cccti.edu for an appointment at a clinical site used by CCCTI.

Please remember that visits are scheduled by Health Science Admissions on dates and times that are convenient for the clinicians and in the order that requests are received.

7. **Interview**

Please request this appointment after admission requirements 1-6 are completed.

The applicant must complete an interview with the program director before admission to the cardiovascular sonography program.

A required criminal background check acknowledgment statement must be signed by the applicant during the interview for the interview requirement to be considered completed.

Please make your appointment directly with Robin Nichols, Program Director at 828-726-2322 or rmichols@cccti.edu

8. **Prerequisite Courses**

The following prerequisite courses must be completed with a grade of “C” or higher.

- BIO 163 Basic Anatomy & Physiology (may substitute BIO 168 & 169 together)
- ENG 111 Writing and Inquiry
- MAT 121 Algebra/Trigonometry I (may substitute MAT 171)
- PHY 110 Conceptual Physics (may substitute PHY 151)
- PHY 110A Conceptual Physics Lab

9. **MAR (Minimum Admissions Requirements) Review**

Contact the Health Sciences Admissions Office to request the MAR Review as soon as ALL the above admissions requirements (steps 1-8) have been completed. During the MAR Review, the Health Sciences Admissions Office will review your file for completion. If all admissions requirements have been met, you will be assigned a consideration date which determines the order in which students are accepted. Request the MAR review by contacting one of the following:

Amy Huffman 828.726.2710
Patty Brinkley 828.726.2711

The CVS consideration date is given after completing ALL ADMISSIONS REQUIREMENTS.
NOTIFICATION PROCEDURE

The students with the earliest consideration dates will be notified of acceptance to the 2018 Cardiovascular Sonography Program in October of 2017. Additionally, other complete applicants will be notified of either “alternate” or “complete” status. All complete students must respond to their notification letter by the established deadline communicated within the letter to secure their position on the waiting list. Complete applicants may be considered (by order of consideration date) if an accepted student declines or is disqualified before the start of the program.

All other cardiovascular sonography applicants who were incomplete with admissions requirements at that time will receive notification of his/her admission status via CCCTI student email accounts during October each year. The notification will require a student response to keep their CVS application active for the next application period.
AFTER ACCEPTANCE — At the time an applicant receives their acceptance notification letter, the following requirements will be expected. Failure to submit proper and complete documentation by the deadlines specified will result in forfeiture of their seat in the class.

1. **Physical examination.**
   - An accurate and satisfactory student medical form (health form), which includes appropriate documentation of immunizations by the health care provider or county health department and physical exam results, must be submitted to Certified Background Check Medical Document Management by the deadline stated in the acceptance letter. **Each student will be responsible for the cost of the electronic health form tracking.** Requirements include current TB (2 step PPD) skin test (within 12 months), mumps/measles/rubella blood titer or vaccine, proof of chicken pox immunity by vaccination or blood titer, and current immunizations for tetanus and diphtheria. The student is also encouraged to obtain Hepatitis B immunizations. Otherwise, the decision to decline the Hepatitis B immunizations must be formally documented.

2. **Infant, Child and Adult CPR certification.**
   - One of the following is required: American Heart Association Basic Life Support Provider course OR American Red Cross Professional Rescuer or Healthcare Provider OR National Safety Council Healthcare Provider. A copy of the CPR certification should be submitted by the **deadline established by the program director.**

3. **Criminal background checks/Drug screening/ other expectations.**
   - Criminal background checks and/or drug screenings are required for the student to participate in the clinical component of each CVS/SON course. **A signed acknowledgement statement must have been submitted to the Health Sciences Admissions office as an admissions requirement** (a copy of the form will be given to the applicant to sign during the interview with the program director – see admissions requirement #7). All costs associated with criminal background checks and drug screenings are the responsibility of the student. The student will assume responsibility for all health care or emergency room costs they might incur during their clinical rotations. **Students are required to obtain health insurance coverage before being allowed to attend clinical and must maintain insurance coverage throughout the program.**
   - The student will assume the responsibility for travel to and from the clinical site and all associated costs.
   - The student will complete a final evaluation of all clinical rotation sites, including faculty and educational experience.

4. **Progression Policy**
   The sonography student must demonstrate an acceptable level of competency by earning a grade of “C” or better in all general education and CVS/SON-prefixed courses. **Clinical Education Courses (noted with an asterisk in the Curriculum Guide below) require an 85 or better to progress.** Failure to maintain these program standards will result in student dismissal from the program. Refer to the Sonography Program Guide for further details.

**Please note:** Each applicant is responsible for:
- completing admission requirements,
- confirming receipt of letters and documents in the admissions office
- keeping CCCTI informed in writing of any personal information changes
- keeping copies of all documentation submitted to CCCTI
## Curriculum for Cardiovascular Sonography (A45160)

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<th>Course Number</th>
<th>Class Name</th>
<th>Class</th>
<th>Lab</th>
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**Tuition and Fees**

**Tuition:**

In-State                      $76.00 per credit hour  
$1,216.00 maximum tuition per semester

Out-of-State             $268.00 per credit hour  
$4,288.00 maximum tuition per semester

**Activity Fees:** $7.00 per class, fall and spring semesters, up to a maximum of $28.00.  
$3.00 per class, summer semester, up to a maximum of $9.00

**Campus Services Fee:** $2.00 per class, up to a maximum of $10.00 per semester

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**For additional information, please contact:**

Amy Huffman, B.A.  
Coordinator of Health Sciences Admissions  
Caldwell Community College and Technical Institute  
2855 Hickory Boulevard  
Hudson, NC 28638  
828-726-2710; 828-328-8697 ext. 710; or 828-264-7670, ext. 710  
Fax: 828-726-2709  
ahuffman@cceti.edu

Robin Nichols, BS, RDMS, RV  
Program Director, Sonography Programs; Instructor  
Caldwell Community College and Technical Institute  
2855 Hickory Blvd  
Hudson, NC 28638  
828-726-2322  
rnichols@cceti.edu

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*Revised 02/2017*

*Since health program standards are mandated by accrediting and regulatory agencies, revisions to the above information may be necessary. Efforts will be made to keep changes to a minimum and finalized one year in advance of the starting date of the program; however, the college reserves the right to revise any part or section as necessary.*