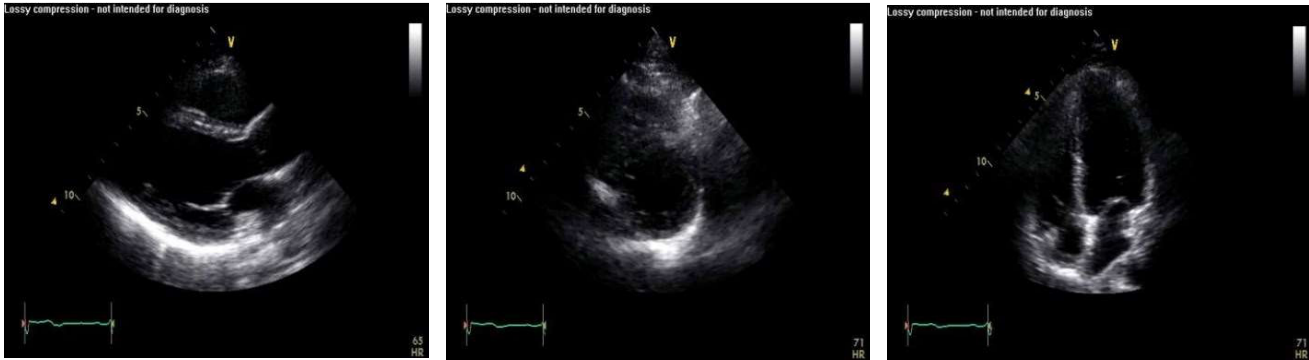


# SPOKANE COMMUNITY COLLEGE

Health and Environmental Science Division

*Non-Invasive Cardiovascular Technology*



## Echocardiography Program Information



**Application Deadline: June 30th**

## *Dear Echocardiography Applicant,*

We have provided this packet that is intended to help you understand the requirements for entry into the Spokane Community College (SCC) Echocardiography Program! Please take your time in reading the entire packet. We have Allied Health Counselors located in building 1 that are a valuable resource of information regarding program admission. Please take the time to visit one of our student counselors. Rely on information from our advisors and from the faculty, not information from others who may not be aware of frequent changes in the program in response to accreditation or legislative bodies and the healthcare environment.

Counselors are located in building 1  
Michelle Gendusa-509-533.8196  
Michelle.gendusa@scc.spokane.edu

We appreciate your interest in our program and look forward to working with you. If you need additional information, please contact the Echocardiography Program Director (509) 533-7309 or by email: [tyler.roberts@scc.spokane.edu](mailto:tyler.roberts@scc.spokane.edu) or one of our counselors.

Sincerely,

*Tyler Roberts, RDCS*

Echocardiography Program Director

Office 217, Bldg 9

Phone #: 509-533-7309

Fax #: 509-533-8621

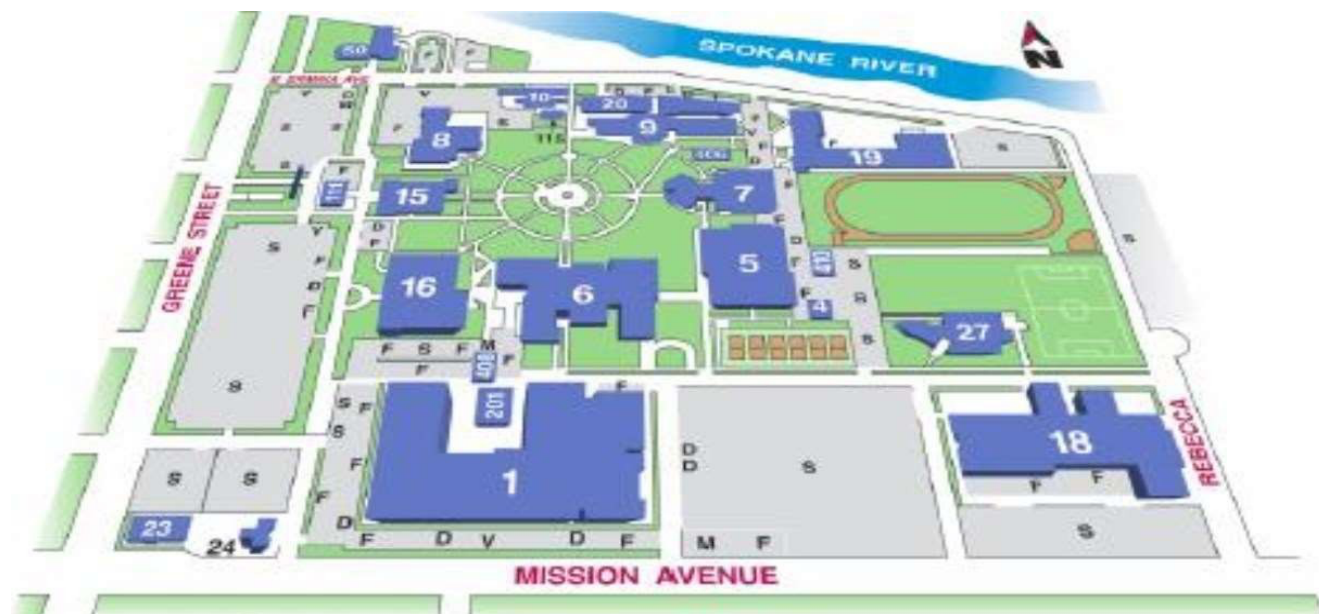
Email: [tyler.roberts@scc.spokane.edu](mailto:tyler.roberts@scc.spokane.edu)

Address: 1810 N. Greene St. Spokane, WA 99217 MS 2090

Echo/Ultrasound Lab, Director and Program classes are located inside building 9 off Ermina Ave

### **Website and program map for Echo:**

<https://scc.spokane.edu/What-to-Study/Programs/Pathway-Course-map?plan=Echocardiography>



# Overview of Echocardiography

*Welcome to the Health Sciences Division. Healthcare is an exciting field. Health professionals play a significant role in the overall wellbeing of our community.*

IN 1967 Dr. Paul Shields noticed a short supply of cardiovascular technicians. This was due in part to the technician's fear of the equipment and critical procedures. His idea to overcome this was to increase the training time from two weeks to two years by starting the first two-year cardiopulmonary program.

## **Health Science Division**

Dental Assisting

Diagnostic Medical Sonography

Emergency Medical Technician

Health Information Technology

Invasive Cardiovascular

Medical Assistant

Noninvasive Cardiovascular

Pharmacy Technician

Radiology Technology

Respiratory Therapy

Surgical Technology

Vascular Technology

In 1977 Dr. Burroughs and Shields recognized the need for skilled echocardiographers. The two programs were cored and formed the Cardiovascular Technology (CVT) program. Dennis Carney was hired in 1977 to develop the curriculum for the Echocardiography/Noninvasive Cardiovascular (Echo/NCT) program and led that program until his retirement in 2011. After extensive searching for Dennis' replacement, Scott Cutler became the program director for Echocardiography in 2013. Scott has worked in the clinical, sales, and quality control aspects of this industry. Although vascular technology was always a component part of the Echo/NCT program the need for additional training in noninvasive vascular technology was recognized and in 2006 a specialty program started in Vascular Technology. The Echocardiography Program at SCC has been fully accredited since 1989 and is current through 2027.

There continues to be a shortage of cardiac sonographers and vascular technologists. In fact, the U.S. Department of Labor describes a need for sonographers with the following statement:

*"Employment of diagnostic medical sonographers is expected to grow much faster than the average occupations through 2020 as the population grows and ages, increasing the demand for diagnostic imaging and therapeutic technology. In addition to job openings from growth, some job openings will arise from the need to replace sonographers who leave the occupation permanently."*

# *Our Vision and Mission:*

The purpose of the Echo/NCT program is to provide educational opportunities that will enable students to obtain the knowledge, skills, and attitudes necessary for success in Echocardiography.

All SCC programs provide educational opportunities regardless of race, color, national origin, religion, sex, age, physical challenges, academic disadvantage, or economic disadvantages.

The CVT programs provide an atmosphere to achieve the philosophical concepts identified by SCC's mission statement. The program is balanced with classroom, laboratory and clinical experience. This combination of learning environments provides the student with a solid structure which allows for fulfillment of individual capabilities.

The Echo/NCT program goal is to prepare competent entry level cardiac sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Through achievement of this goal, our intent is to produce graduates who are prepared for employment in the general areas of communication, math, interpersonal relations, and professional ethics. The expectation is that graduates will competently perform echocardiography examinations of adult acquired heart disease and congenital heart disease. The Echo/NCT program strives to meet the health care needs of the community in which it serves.

The Echocardiography/Noninvasive Cardiovascular Technology Student Handbook is designed to explain the policies and guidelines of the Health Science Division and the Echocardiography/Noninvasive Cardiovascular Technology Program. It is the student's responsibility to become familiar with this handbook. Faculty will refer to it throughout the academic year. In addition, the student is responsible for obtaining a copy of the SCC Student Handbook and Planner. The SCC Student Handbook provides an overview of college wide policies and procedures that set expectations for student behavior.

## **Vision**

Spokane Community College is a place where students transform their lives and attain their dreams in an unsurpassed learning environment that is personalized, engaging, and affordable.

## **Mission**

At Spokane Community College, we strive to provide our community accessible and affordable educational opportunities responsive to the needs of our diverse population. We do this through:

- Industry-standard, professional-technical certificate, and degree programs

- Liberal arts and professional-technical programs transferable to four-year institutions

- Developmental and continuing education, distance learning, and lifelong learning opportunities

- Educational programs that emphasize four critical learning abilities: Responsibility, Communication, Problem-Solving, and Global Awareness

- Instructional support and student services that enhance and promote student success.

As we carry out this mission, our skilled and dedicated faculty, staff and administration continuously support the individual and professional growth of our students and the economic success of our region.

## ***Program Description***

This program is commonly referred to as "Echo". Echocardiography technologists use sophisticated computers and cutting-edge technology to create and read sound waves in order to capture videos and images of the heart. These ultrasounds allow us to see into the body without pain or radiation so cardiologists can evaluate the function of the heart and plan possible treatment.

SCC's two-year program focuses on the adult heart and diseases that affect it. However, you also work with pediatric patients and even discuss the heart in the fetus. You become internationally registered by one of two international credentialing agencies that allow you to literally work anywhere in the world.

The first year of the program is the learning in the classroom with laboratory experience on real equipment and real people. Later, you begin clinical rotations in hospitals and clinics and work on real cardiac patients. During the final six months of the program, students are placed full-time in a clinical setting, refining their skills and preparing to work. During this time, many students are placed in clinical sites throughout the western United States. A few students may stay in Spokane/CDA area.

You will be among the highest paid and most sought after allied health workers, including nursing. You can work in a large variety of healthcare facilities ranging from hospitals to clinics and even administration or sales.

## ***Accreditation***

The Cardiovascular Technology Programs (Invasive and ECHO) are accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Joint Review.

Committee for Cardiovascular Technology ([www.jrccvt.org](http://www.jrccvt.org)). The Echocardiography Program at SCC has been fully accredited since 1989 and is current through 2027.

To contact the accrediting agencies:

CAAHEP

25400 U.S. Highway 19 North, Suite 158 Clearwater, FL 33763

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

JRC-CVT

6 Pine Knoll Dr.

Beverly, MA 01915-1425

[www.jrccvt.org](http://www.jrccvt.org)

## *Admissions Requirements and Procedures*

1. All applicants that meet or exceed the minimum qualifying admission standards will be considered for admission regardless of race, color, creed, gender, age, national origin, marital status, or possessing sensory, physical or mental challenges.

The job performance of the cardiovascular sonographer requires certain basic physical and mental abilities. Challenged persons that are capable of the following **technical standards** will be considered:

- Sufficient hearing to assess patient needs and communicate verbally with other health care providers.
  - Sufficient verbal and written skills to communicate patient, and/or staff/student needs promptly and effectively in English.
  - Sufficient gross and fine motor coordination to respond promptly, manipulate equipment, lift moderate weight and ensure patient safety.
  - Satisfactory intellectual and emotional functions to exercise independent judgment and discretion in the safe technical performance of medical imaging procedures.
  - Sufficient eyesight to observe patients, manipulate equipment and evaluate sonographic quality.
2. All applicants must be high school graduates or have passed the General Education Development test (GED).
  3. Upon acceptance all applicants **must** complete and submit a clear national background check prior to starting clinical rotation summer quarter.
  4. All applicants must have completed the following college level courses or equivalents and achieve at least a 2.5 grade on a 4.0 grading scale, in each course. All required courses must be completed by the end of the spring term for the placement consideration in the class beginning in September of each year. All prerequisite courses must be completed ***within the previous five years of the application year.***

### Prerequisites:

BIOL 160 - General Biology w/Lab

BIOL 241 - Human A & P 1

BIOL 242 - Human A & P 2

CMST 210 - Interpersonal Communications

HED 109 – Human Pathophysiology

ENGL 101 - English Composition I

HED 125 - Medical Terminology

MATH 146 – Statistics

PHYS 100 - Introductory Physics

**\*\* Applicants are encouraged to take additional courses in physics, chemistry, and biology. BLS, EKG, MA and other medical certifications will assist with scoring higher during interview process.**

## *Admissions Requirements and Procedures cont.*

### **Additional admission requirements:**

- a. Three confidential letters of recommendation – **sealed in envelope by person who wrote letter and included in your application packet**
  - b. All prior college transcripts – need to be OFFICIAL transcripts if not from SCC
  - c. Documentation of 40 hours as volunteer/employee in a patient care setting and 10 of those must be completed in echocardiography/ultrasound dept (either at a hospital/clinic or at our lab at SCC donating your time to be scanned by current students.) The 40 hours must be completed by the application deadline of the year the student is applying for.
  - d. Interview with the selection panel
5. Each potential student must complete an Application for Admissions to Spokane Community College by the deadline date for the class beginning the following September.
6. An admission application is not considered complete until the application is completely filled out, three letters of recommendation are received, and all high school and college transcripts are received. Students attending spring quarter classes must request that those grades be forwarded immediately upon completion of the spring term. **Please submit everything in a single manilla packet, it helps admissions stay organized.**
- If you are unable to get official SCC transcripts from spring quarter before the June deadline, unofficial transcripts will be acceptable.
7. Candidates must make themselves available for a personal interview by the selection committee at the committee's request. Interviews will be scheduled in mid-July. Applicants will be notified of the committee's decision within four weeks after the personal interview.
8. Student selection is based on the candidate's application, references, high school and college grades and the personal interview. The selection committee's decision on student selection is final and is not subject to appeal. However, qualified applicants who are not selected may reapply for future cohorts.
9. Students must submit evidence of good health by receiving a physical examination from their personal physician. Physical examinations must have been performed within six weeks of the school's starting date. On or prior to the first day of school at Spokane Community College, the program director must receive a letter signed by the physician indicating a good health status with no restrictions.
10. All selected students will be required to sign consent and release form authorizing Spokane Community College to perform a 10 panel drug screen prior to clinical rotation.

### ***Selection Procedure***

Final selection for the Echocardiography Program is based on the high school and college GPA, completion of pre-requisite courses, grades received, letters of recommendation, extra certifications/degrees and the personal interview. After entering the Echocardiography program, students are required to maintain a minimum of a 2.0 grade in each class before proceeding to the next quarter. Students need to realize that clinical site placement will **likely require relocation** outside of the immediate Spokane area and Washington State for 8 months. (1 month clinical in 4<sup>th</sup> quarter, 1 month in 5<sup>th</sup> quarter, 3 months in 6<sup>th</sup> quarter, 3 months in 7<sup>th</sup> quarter.)

## *Prerequisites and Course outline*

### **Prerequisites:**

– BIOL& 160	General Biology w/Lab
– BIOL& 241	Human A & P 1
– BIOL& 242	Human A & P 2
– CMST& 210	Interpersonal Communication
– ENGL& 101	English Composition I
– HED 125	Medical Terminology
– HED 109	Human Pathophysiology and Disease
– MATH& 146	Intro to Statistics
– PHYS 100	Introductory Physics

### **First Quarter**

ECHO 100	Introduction to Echo and Vascular	2
ECHO 105	Introductory Echocardiographic Skills	1
ECHO 112	Vascular Fundamentals	3
ECHO 115	Vascular Fundamentals Technical Skills	2
ECHO 118	Cardiovascular Physiology I (+hemodynamics/pharmacology)	2
ECHO 125	Ultrasound Physics and Instrumentation I	5
ECHO 213	Electrocardiography	3
ECHO 214	Electrocardiography Lab	1
<b>Total</b>		<b>19</b>

### **Second Quarter**

ECHO 122	Vascular Procedures I	3
ECHO 121	Technical Skills Vascular Procedures I	2
ECHO 130	Echo Fundamentals Lab	2
ECHO 133	Echo Fundamentals	4
ECHO 138	Cardiovascular Physiology II (+hemodynamics/pharmacology)	3
ECHO 135	Ultrasound Physics and Instrumentation II	5
<b>Total</b>		<b>19</b>

### **Third Quarter**

ECHO 131	Core Concepts in Echo/Vascular	2
ECHO 136	Comparative Imaging Analysis	3
ECHO 253	Echocardiography I	6
ECHO 254	Technical Skills Echocardiography I	4
<b>Total</b>		<b>15</b>

### **Fourth Quarter**

ECHO 139	Surgical Asepsis	1
ECHO 140	Technical Skills/Surgical Asepsis	1
ECHO 142	Echo Clinical Preparation	4
ECHO 143	Echo Clinical I (160 hrs)	6
ECHO 255	Research Methods and Biostatistics	3
<b>Total</b>		<b>15</b>

### **Fifth Quarter**

ECHO 251	Echocardiography Clinical II (60 hrs)	6
ECHO 252	Cardiovascular Pathophysiology	1
ECHO 263	Echocardiography II	6
ECHO 264	Technical Skills Echo II	2
<b>Total</b>		<b>15</b>



**Sixth Quarter**

ECHO	261	Echocardiography Clinical III (440 hrs)	14
ECHO	265	Echocardiography Seminar I	2
<b>Total</b>			<b>16</b>

**Seventh Quarter**

ECHO	273	Echocardiography Clinical IV (440 hrs)	14
ECHO	275	Echocardiography Seminar II	2
<b>Total</b>			<b>16</b>

**115 credits are required for the AAS**

<sup>1</sup> All prerequisite courses must have been completed within the last five years with a GPA of 2.5 or better.

**Grading Scale:**

Below is our grading scale once you are admitted into the program. Student must maintain a 2.0 minimum or risk being failed out. Open communication with program director is strongly suggested to ensure student success.

Raw Average	Grade Point	Equivalent Letter
98.5 -100	4.0	A
98.0-98.4	3.9	A
97.0-97.9	3.8	A
96.0-96.9	3.7	A-
95.0-95.9	3.6	A-
94.0-94.9	3.5	A-
93.0-93.9	3.4	B+
92.0-92.9	3.3	B+
91.0-91.9	3.2	B+
90.0-90.9	3.1	B
89.0-89.9	3.0	B
88.0-88.9	2.9	B
87.0-87.9	2.8	B-
86.0-86.9	2.7	B-
85.0-85.9	2.6	B-
84.0-84.9	2.5	C+
83.0-83.9	2.4	C+
82.0-82.9	2.3	C+
81.0-81.9	2.2	C
80.0-80.9	2.1	C
<b>79.0-79.9</b>	<b>2.0</b>	<b>C [Lowest acceptable]</b>
Grades below this mark = unlikely to progress		

**Grading and Other information:**

- An instructor may assign a letter grade of I or “incomplete.” This will indicate that additional work by a student is still required before a final grade is assigned. The student must complete all course work to rectify the incomplete grade within 3 weeks following the last class of that course.
- Remedial training may be designated by the individual instructor and may consist of additional tests, quizzes, reading assignments, written or oral reports, et. Remedial training must be completed before the start of the next quarter if it is a pre-requisite for a class in the following quarter.
- The instructor will keep in mind that remedial training is imposed to assist in developing the student’s knowledge base in a particular subject and not as a punishment for lack of personal achievement. Remedial training will continue through the next quarter until a minimum level of achievement of at least a 2.0 grade is obtained.
- Students who are dismissed from the program for academic reasons may re-enter the program only ONCE. Readmission is based upon space and availability (class size of <14). It is common to use independent study courses to assist in getting the returning student at a competent academic level prior to fully returning to the program.

## Financial Considerations

Upon entering the Echo/NCT Program the student should be prepared to meet certain financial expenditures. The following amounts are ESTIMATES covering the entire program and should be used as a guideline ONLY. **All prices subject to change**

### Estimated Expense List

Books [estimate for 7 quarters]	\$	1500.00
Drug Screening (if required)	\$	15.00
Immunizations... <i>Estimated Cost</i> /	\$	300.00
Lab Fees [estimate for 7 quarters]	\$	500.00
Liability Insurance [per-quarter-included in lab fees]	\$	15.00
Locker [per year]	\$	3.00
Medical Insurance [per quarter]	\$	40.00
National Registry Exam-ARDMS [2 exams @ \$200 & 250]	\$	450.00
National Registry Exam-CCI [1 exam @ \$350]	\$	350.00
Parking [per quarter]	\$	22.00
Student Assessment Testing Fee	\$	20.00
Tuition [approximate per quarter, resident status]	\$	1460.00
Uniforms	\$	100.00

## Student Disabilities Statement

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student's request. The student will be required to register with the Disability Support Services office and provide documentation of disability. Once the student is qualified by the DSS Manager as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory, or clinical setting will be considered according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the nature of the program or activity, are not considered to be reasonable.

A student denied accommodation may request an individualized determination to assure that the denial is not a result of disability discrimination. *Concerns may be expressed to the Dean of Health and Environmental Sciences at 533-7295 or to the Manager of Disability Support Services and Testing at 533-7498.* Procedures for student grievance are outlined in the *SCC Student Handbook* and in the *SCC Center for Students with Disabilities Student Handbook*.



## ***Application Checklist***



- **SCC General Admission Application Form**

- Application: <http://www.scc.spokane.edu/Admissions/Apply.aspx?page=PV2>
  - This is to gain admission into pre-requisites

- **Echocardiography Application form:**

- <https://shared.spokane.edu/ccsglobal/media/Global/PDFs/SCC/2024-Application.pdf>
  - This application is good for Echocardiography, DMS and Vascular technology
  - Simply choose which program is your 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> choice

- **Three Confidential letters of recommendation (sealed in envelope)**

- **Documentation of 40 hours of patient volunteer hours (see form on last pg of echo application)**

- **Transcripts – Submit official transcripts if they are from another college than SCC**

- **Send complete admissions packet to: Scott Anderson @ 1810 N Greene St, MS 2150**

PLEASE submit all materials in ONE PACKET or manilla folder to Scott Anderson, multiple submissions will lead to incomplete packets so please only make **one submission**. If you need to edit or add documentation, please contact Scott in the admissions building.

### **Scott Anderson**

Spokane Community College  
1810 N Greene St, MS 2150  
Spokane, WA, 99217

Email: [Scott.Anderson@scc.spokane.edu](mailto:Scott.Anderson@scc.spokane.edu)

Phone: 509-533-7013

Fax: 509-533-8181

Interviews will be held the third week of July. Students will be notified of their interview appointment within 2 weeks of application submission. **Notification of appointment will be distributed by e-mail only.** Please make sure your records have an accurate and working e mail address. Exceptions may be made by the program director at their discretion.