



2007-2008 Career Planning Guide

CARDIOVASCULAR TECHNOLOGY, NONINVASIVE

Spokane Community College

Spokane Community College
1810 North Greene Street
Spokane, Washington 99217-5399
www.scc.spokane.edu

Completion Award: A.A.S. Degree

Start: Fall

Tuition and Fees

Approximate Quarterly Cost: (subject to change without notice)

Books (estimate, seven quarters)	\$	1000
Supplies and Equipment (estimate, seven quarters)	\$	150
Misc. Fees	\$	375
* Uniforms \$75; Insurance \$35; National Certification Exam \$165; Physical Exam \$100		

PROGRAM WEBSITE: <http://www.scc.spokane.edu/?alliedh>

Program Description

Noninvasive cardiovascular technology is an allied health profession specifically concerning the diagnosis and treatment of patients with cardiac and peripheral vascular disease. The technologist performs examinations at the request or direction of a physician. Through subjective sampling and/or recording, the technologist proceeds with the examination to create an easily definable foundation of data from which a correct anatomic and physiologic diagnosis may be established for each patient.

The primary role of the noninvasive cardiovascular technologist is to obtain recordings of ultrasound images of the heart and related structures for the physician to interpret. The various types of ultrasound equipment require a highly skilled operator to obtain the imaging information or other data required. The noninvasive cardiovascular technologist must obtain appropriate clinical history, cardiac-related physical findings, and pertinent laboratory data in order to adapt the imaging techniques to obtain comprehensive and diagnostic echocardiographic information.

PROGRAM GOALS--Students who complete this program will be able to:

1. Perform high quality noninvasive cardiovascular tests on patients, while tailoring the examinations to bring out abnormalities present. Skill will be developed in performing M-mode, Two-dimensional and Doppler echocardiograms, electrocardiograms, exercise tolerance testing, ambulatory electrocardiographic monitoring and pacemaker reprogramming and monitoring.
2. Quantitate, subjectively evaluate and interpret the data collected to assist the physician in arriving at a diagnosis.
3. Develop clinical understanding of the anatomy, physiology, pathology, diagnosis and treatment of the major adult and pediatric cardiac diseases and deformities.
4. Communicate effectively and in a professional manner with physicians, patients and other members of health teams.

The Noninvasive Cardiovascular Technology program is combined with the Invasive Cardiovascular Technology program for the first three quarters. Students completing this core program will have the basic scientific, medical and technical skills necessary to enter the second portion of the program.

The second portion is an intensive study in noninvasive cardiovascular technology with emphasis on the performance and evaluation of M-mode, two-dimensional and Doppler echocardiography. Upon completion of didactic training, the student is assigned to a major medical center where she/he will complete one quarter of clinical internship as a noninvasive cardiovascular technologist. As clinical space is limited in Spokane, the student is encouraged to complete their internship in a major out-of-town medical center.

Career Opportunities

Ultrasonic imagery of intracardiac and vascular structures is a rapidly advancing specialty due to continued technological advances. There continues to be a demand for trained technologists in hospitals, clinics and physicians offices. The greatest demand is outside of the Spokane area due to the few number of training programs available across the nation.

POTENTIAL POSITIONS INCLUDE: noninvasive cardiovascular technologist, echocardiographer, and cardiac sonographer

Suggested Course of Study 2007-2008

Consult Adviser/Counselor for Program Planning and Selection of Electives

CARDIOVASCULAR TECHNOLOGY, NONINVASIVE

A.A.S. Degree: SCC

Admission Prerequisites/Requirements:

- High school diploma or GED certificate
- MATH 99¹
- CHEM 161¹
- BIOL 101¹
- Interview with cardiovascular technology instructor
- Appropriate scores in one of the following: ASSET or Compass

Admission Recommendations:

- Computer skills
- Active email account

A 2.0 grade must be maintained quarterly in every course before proceeding to the next quarter.

A.A.S. Degree				A.A.S. Degree (continued)			
FIRST YEAR				SECOND YEAR			
First Quarter			Credits	Fifth Quarter			Credits
A-P	242	Human Anatomy and Physiology	5	NCT	251	Echocardiography Clinical I	4
CHEM	120	Organic and Biochemistry for Health Sciences	5	NCT	253	Echocardiography I	<u>11</u>
ICT	114	Cardiovascular I	4				15
NCT	113	Electrophysiology I	<u>4</u>	Sixth Quarter			
			18	NCT	261	Echocardiography Clinical II	4
Second Quarter				NCT	263	Echocardiography II	<u>11</u>
A-P	243	Human Anatomy and Physiology	5				15
ICT	124	Cardiovascular II	4	Seventh Quarter			
NCT	123	Electrophysiology II	4	NCT	273	Echocardiography Clinical III	<u>13</u>
PHYS	120	Fundamentals of Medical Physics	<u>5</u>				13
			18	<p>109 credits are required for an A.A.S. degree.</p> <p>Students may repeat a noninvasive course once, but it must be repeated within two years.</p> <p>¹ All math and science courses must have been completed within the last five years and must have been completed with a grade point of 2.0 or better.</p> <p>Disclaimer: The college cannot guarantee courses will be offered in the quarters indicated. During the period this guide is in circulation, there may be curriculum revisions and program changes. Students are responsible for consulting the appropriate academic unit or adviser for more current and specific information. The information in this guide is subject to change and does not constitute an agreement between the college and the student.</p>			
Third Quarter							
ICT	134	Invasive Cardiovascular Fundamentals	5				
ICT	138	Cardiovascular Physiology	3				
NCT	133	Noninvasive Cardiovascular Fundamentals	5				
PHYS	121	Medical Physics II	<u>4</u>				
			17				
Fourth Quarter							
NCT	141	Computers for the CV Technologist	3				
NCT	142	Noninvasive Cardiovascular Clinical	4				
NCT	143	Noninvasive Cardiovascular Clinical Observation	<u>6</u>				
			13				