

CURRICULUM STANDARD

Effective Term
Fall 2009
[2009*03]

Curriculum Program Title	Cardiovascular Sonography	Program Code	A45160
Concentration	(not applicable)	CIP Code	51.0999

Curriculum Description

The Cardiovascular Sonography curriculum provides the individual with the knowledge and skills necessary to acquire, process, and evaluate the human heart and vascular structures. A cardiovascular sonographer uses high frequency sound waves to produce images of the heart and vascular structures.

Course work includes effective communication and patient care skills combined with a knowledge of physics, human anatomy, physiology, and pathology, all of which are essential to obtaining high quality sonographic images.

Graduates may be eligible to apply to the American Registry of Diagnostic Medical Sonographers for examinations in physics, cardiovascular physics, vascular physics, and adult echocardiography. Graduates may find employment in hospitals, physicians' offices, mobile services, and educational institutions.

Curriculum Requirements*

[for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.10]

- I. **General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.

- II. **Major Hours.** AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*

- III. **Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	64-76	36-48	12-18

*Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.

Major Hours

- A. Core.** The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.
- B. Concentration** *(if applicable)*. A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.
- C. Other Major Hours.** Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work-based learning may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Cardiovascular Sonography A45160

	AAS	Diploma	Certificate																																																
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC																																																
<p>A. CORE <i>A diploma offered under this AAS degree requires a minimum of 12 SHC extracted from the required subject/course core of the AAS degree.</i></p> <p>Required Courses:</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">CVS</td><td style="width: 10%;">160</td><td style="width: 60%;">CVS Clinical Education I</td><td style="width: 20%;">5 SHC</td></tr> <tr><td>CVS</td><td>161</td><td>CVS Clinical Education II</td><td>8 SHC</td></tr> <tr><td>CVS</td><td>162</td><td>CVS Clinical Education III</td><td>5 SHC</td></tr> <tr><td>CVS</td><td>163</td><td>Echo I</td><td>4 SHC</td></tr> <tr><td>CVS</td><td>164</td><td>Echo II</td><td>4 SHC</td></tr> <tr><td>CVS</td><td>260</td><td>CVS Clinical Education IV</td><td>8 SHC</td></tr> <tr><td>CVS</td><td>261</td><td>CVS Clinical Education V</td><td>8 SHC</td></tr> <tr><td>SON</td><td>111</td><td>Sonographic Physics</td><td>4 SHC</td></tr> <tr><td>SON</td><td>250</td><td>Vascular Sonography</td><td>2 SHC</td></tr> </table> <p>Required Subject Areas: Anatomy and Physiology. Select one:</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">BIO</td><td style="width: 10%;">163</td><td style="width: 60%;">Basic Anatomy & Physiology</td><td style="width: 20%;">5 SHC</td></tr> <tr><td>BIO</td><td>166</td><td>Anatomy and Physiology II</td><td>4 SHC</td></tr> <tr><td>BIO</td><td>169</td><td>Anatomy and Physiology II</td><td>4 SHC</td></tr> </table>	CVS	160	CVS Clinical Education I	5 SHC	CVS	161	CVS Clinical Education II	8 SHC	CVS	162	CVS Clinical Education III	5 SHC	CVS	163	Echo I	4 SHC	CVS	164	Echo II	4 SHC	CVS	260	CVS Clinical Education IV	8 SHC	CVS	261	CVS Clinical Education V	8 SHC	SON	111	Sonographic Physics	4 SHC	SON	250	Vascular Sonography	2 SHC	BIO	163	Basic Anatomy & Physiology	5 SHC	BIO	166	Anatomy and Physiology II	4 SHC	BIO	169	Anatomy and Physiology II	4 SHC	52-53 SHC	12 SHC	
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<p>C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i></p> <p>BIO, BUS, CHM, CIS, COM, CSC, CVS, ENG, HSC, MAT, PHY, PSY, SOC, SON, and WBL</p> <p><i>Up to two semester hour credits may be selected from ACA.</i></p> <p><i>Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA.</i></p>																																																			