DIAGNOSTIC CARDIAC SONOGRAPHY (AAS)

Health Science

Program website (https://www.harpercollege.edu/academics/health/diagnostic-cardiac-sonography/dcs-degree.php)

Program Overview

This 67.5 credit-hour program prepares the graduate to be a diagnostic cardiac sonographer. A diagnostic cardiac sonographer is a highly skilled professional who uses specialized ultrasound equipment to record visual images of the heart. They work in hospitals and outpatient settings producing these echocardiograms to assist the physician in diagnosing heart disease. This degree prepares the graduate to secure their American Registry of Diagnostic Medical Sonography credential and entry-level work in the adult echo specialty area. The graduate also receives instruction in basic vascular sonography as well as EKG-related diagnostic testing. A clinical hospital experience in echocardiography is provided.

Because of the nature of clinical experiences and individualized instruction required in this program and specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career-specific courses including courses with the DCS prefix. Students will pay 1.5 the regular rate of tuition.

Admission Requirements

Diagnostic Cardiac Sonography is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu (https://www.harpercollege.edu/). Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

Program Requirements

A grade of C or better in all coursework is required for all students.

Prerequisites		**Hours**
BIO 260	Human Anatomy [1]	4
BIO 261	Human Physiology [1]	4
ENG 101	Composition I	3
Mathematics [2]		3
PHY 100	Basic Concepts in Physics [3]	3
	Hours	**17**
First Semester		
DCS 101	Electrocardiography I	2
DCS 105	Ultrasound Physics and Instrumentation I	2
DCS 107	Sonography Theory I	2
DCS 109	Sonography Lab I [4]	1
HSC 112	Medical Terminology	2
HSC 165	Basic Pharmacology	1
	Hours	**10**
Second Semester		
DCS 102	Electrocardiography II	2
DCS 106	Ultrasound Physics and Instrumentation II	2
DCS 108	Sonography Theory II	2
DCS 110	Sonography Lab II [4]	1
HSC 104	Health Care Technology and Informatics	2
HSC 213	Legal and Ethical Issues in Health Care	2
	Hours	**11**
Diagnostic Cardiac Sonography Summer Session I		
Optional		
DCS 112	Sonography Lab III [5]	0-1
	Hours	**0-1**
Third Semester		
DCS 207	Cardiac Sonography Theory I	6
DCS 209	Cardiac Sonography Lab I [4]	2
Humanities or Social and Behavioral Science [+]		3
	Hours	**11**
Fourth Semester		
DCS 208	Cardiac Sonography Theory II	6
DCS 210	Cardiac Sonography Lab II [4]	2
DCS 220	Introduction to the Cardiac Sonography Clinical	2.5
SPE 101	Fundamentals of Speech Communication	3
	Hours	**13.5**
Diagnostic Cardiac Sonography Summer Session II		
DCS 230	Cardiac Sonography Clinical [6]	5
DCS 260	Advanced Sonography Seminar [5]	0-1
	Hours	**5-6**
	Total Hours	**67.5-69.5**

1. Must be completed no earlier than five years prior to beginning the DCS program; time requirement may be waived for direct patient care providers with a minimum of a two-year allied health care degree.
2. MTH 165 is recommended. MTH 101, MTH 103, or higher with a grade of C or better may be substituted.
3. PHY 110 or PHY 121 or higher with a grade of C or better may be substituted.
4. Every credit hour of sonography lab requires a minimum of 2 hours per week sonography lab practice.
5. This course is optional and not required for graduation.
+ Students need to choose a course to meet this requirement that also fulfills the World Cultures and Diversity graduation requirement. See full list of AAS General Education Electives (https://catalog.harpercollege.edu/catalog/programs/aas-general-education-electives/).
6. Assignments will be based on site availability.

Program Learning Outcomes

To prepare competent entry-level cardiac sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

Graduates of this program will:

- recognize abnormal sonographic findings
- recognize significant clinical information that impacts the sonographic examination
- maintain a safe environment for him or herself and the patient

- apply concepts of ultrasound physics when imaging
- possess the general medical knowledge to perform effectively in a health care setting
- perform competently a broad range of examinations within their specialty area
- produce sonography images in a time efficient manner
- optimize and acquire quality sonographic images
- perform comprehensive diagnostic ultrasound examinations
- demonstrate sound clinical judgment within the health care environment
- meet the ethical and professional expectations of the clinical environment
- communicate effectively with patients and members of the health care team
- become an effective member of the profession and health care organization