

# ADULT AND PEDIATRIC CARDIAC SONOGRAPHY SPECIALIZATION - APPLIED HEALTH SCIENCES, BACHELOR OF APPLIED SCIENCE

**Previous Degree Required:** A.S.

**Eligible for Financial Aid:** Yes

**Delivery Method(s):** On-Campus, Hybrid

**Location(s):** Melbourne, Online

**Additional Limited Access Application Process Required:** Yes

**Program Testing Requirements:**

**Academic Community:** HSCI Health Sciences

**Program Code:** HSBSMAPC

**Classification of Instructional Programs (CIP) Code:** 51.2211

**Florida Department of Education CIP Code:** 1105122111

Students can only select one major and one specialization. Students may receive a specific A.S./BAS degree only one time. Students may take courses from multiple specializations, however, the degree will be awarded only once.

Admissions requirements:

- Specific degree required: AS in Sonography from a CAAHEP accredited program
- Current ARDMS registration (any specialty), ARRT certification in Sonography Primary, or CCI certification.

[Visit the program page for more details and how to apply.](#)

Code	Title	Credit Hours
<b>Associate Degree</b>		
Complete Associate Degree		60
<b>Applied Health Science Core Courses</b>		
HSC 3741 or ENC 3241	Writing for Healthcare Professionals Technical Writing for Professionals	3
ISC 3523	Applied Scientific Thinking	3
<b>General Education or Technical Concentration</b>		
Student will take 21 credits to satisfy general education requirements 21 (36 general education credits are required).		
<b>Adult and Pediatric Sonography Major Courses</b>		
SON 3402	Introduction to Electrocardiography	3
SON 4131	Pediatric Cardiac Sonography	4
SON 4132	Adult and Pediatric Cardiac Sonography Seminar	2
SON 4404	Adult Cardiac Sonography I	3
SON 4405	Adult Cardiac Sonography 2	3
SON 4944	Pediatric Cardiac Sonography Practicum	4
SON 4945	Adult Cardiac Practicum 1	4
SON 4946	Adult Cardiac Practicum 2	4
<b>Technical Electives</b>		<b>6</b>

Select 6 credits from the following:

HSA 3111	US Healthcare Systems
HSA 3180	Healthcare Administrative Management
HSA 3191	Healthcare Automation and Technology
HSA 3502	Healthcare Risk Management
HSA 4170	Healthcare Finance
HSC 4184	Healthcare Leadership
PHY 2048	General Physics 1
PHYL 2048	General Physics 1 Laboratory

**Total Credit Hours** 120

Course	Title	Credit Hours
<b>Term 1</b>		
HSC 3741 or ENC 3241	Writing for Healthcare Professionals or Technical Writing for Professionals	3
SON 3402	Introduction to Electrocardiography	3
SON 4404	Adult Cardiac Sonography I	3
SON 4945	Adult Cardiac Practicum 1	4
<b>Credit Hours</b>		<b>13</b>
<b>Term 2</b>		
ISC 3523	Applied Scientific Thinking	3
SON 4131	Pediatric Cardiac Sonography	4
SON 4944	Pediatric Cardiac Sonography Practicum	4
Technical Electives		3
<b>Credit Hours</b>		<b>14</b>
<b>Term 3</b>		
SON 4132	Adult and Pediatric Cardiac Sonography Seminar	2
SON 4405	Adult Cardiac Sonography 2	3
SON 4946	Adult Cardiac Practicum 2	4
<b>Credit Hours</b>		<b>9</b>
<b>Term 4</b>		
General Education or Technical Concentration Hours		9
Technical Electives <sup>1</sup>		3
<b>Credit Hours</b>		<b>12</b>
<b>Term 5</b>		
Technical Electives <sup>1</sup>		3
General Education or Technical Concentration Hours		9
<b>Credit Hours</b>		<b>12</b>
<b>Total Credit Hours</b>		<b>60</b>

<sup>1</sup>

Select 6 credits from the following:

HSA 3111	US Healthcare Systems
HSA 3180	Healthcare Administrative Management
HSA 3191	Healthcare Automation and Technology
HSA 3502	Healthcare Risk Management
HSA 4170	Healthcare Finance
HSC 3801	Clinical Observation/Volunteer Work
HSC 4184	Healthcare Leadership
PHY 2048	General Physics 1
PHYL 2048	General Physics 1 Laboratory

## **Learning Outcomes: Adult and Pediatric Cardiac Sonography Specialization, B.A.**

1. Demonstrate professional behavior while in an adult cardiac clinical setting.
  - Core Ability Supported: Work Cooperatively
2. Differentiate between normal and abnormal Electrocardiography.
  - Core Ability Supported: Think Critically and Solve Problems
3. Identify abnormal and normal conditions for the adult cardiac cycle.
  - Core Ability Supported: Think critically and Solve Problems
4. Describe the development of major cardiac structures from conception to birth
  - Core Ability Supported: Think critically and Solve Problems
5. Describe the pathophysiological and hemodynamic consequences of each congenital pathology
  - Core Ability Supported: Think critically and Solve Problems
6. Discuss the repair techniques related to selected congenital abnormalities
  - Core Ability Supported: Think critically and Solve Problems
7. Execute proper positioning and standards while in a clinical setting
  - Core Ability Supported: Work Cooperatively
8. Describe the variation in imaging planes used in pediatric echocardiography to optimally image atypical anatomy and cardiac positioning.
  - Core Ability Supported: Work Cooperatively
9. Recognize echocardiographic anatomy of selected congenital disease, i.e., shunting lesions, transposition of the great vessels, venous anomalies, single ventricle lesions, right and left heart abnormalities, and myocardial pathologies
  - Core Ability Supported: Work Cooperatively
10. Identify abnormal and normal pathology and anatomy for the adult cardiac cycle
  - Core Ability Supported: Think critically and Solve Problems