

ADULT AND PEDIATRIC CARDIAC SONOGRAPHY, ADVANCED TECHNICAL CERTIFICATE

Program Opens in Fall 2023

Program Code: APTC

Meta-Major: HSCI

Location(s): Melbourne

Delivery Method(s): On-Campus

Previous Degree Required: AS/AAS

Eligible for Financial Aid: Yes

Additional Limited Access Application Process Required: Yes

Program Testing Requirements:

Classification of Instructional Programs (CIP) Code: 51.0901

Florida Department of Education CIP Code: 0351090166

Duties of sonographers have evolved over the years as advances in adult and pediatric sonography have provided new imaging modalities and techniques to help aid in providing the best possible care for the adult and pediatric cardiac patient.

These sonographic advances have challenged the cardiac sonographer to obtain an in-depth understanding of adult and pediatric cardiac anatomy and disease processes. Through completion of the Adult and Pediatric Cardiac Sonography Advanced Technical Certificate (ATC), students are able to obtain didactic information and clinical experiences allowing them to enter into the adult and pediatric cardiac specialties.

Eastern Florida State College Adult and Pediatric Cardiac Sonography ATC program supplements students' AAS or AS degree in Sonography. Coursework allows students to further their training and obtain the technical information to become a cardiac sonographer. In addition, coursework can be applied towards a BAS Applied Health Sciences specialization: Adult and Pediatric Cardiac Sonography.

Adult and Pediatric Cardiac Sonography is a limited access program with a specialized application process. The program includes courses during two terms each year held on the Melbourne Campus and local clinical settings. To be awarded an ATC, students must have an AS or AAS. The ATC in Adult and Pediatric Sonography requires an AS in Sonography from a regionally accredited institution. Coursework from the ATC may be used as part of BAS-Applied Health Science: Medical Imaging Sciences - Adult and Pediatric Sonography Specialization. The completion of an AS or AAS degree is required for this program.

Diagnostic cardiac sonographers (also known as an echocardiography technologists) use non-invasive ultrasound machines, laptops and transducers to create images of the inside of patients' hearts, which physicians use to make a medical diagnosis — often without expensive, invasive methods. Cardiac sonographers also maintain the specialized cardiac imaging equipment. [Visit the program page for more details and how to apply.](#)

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Curriculum

Code	Title	Credit Hours
Major Courses		
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
Total Credit Hours		27

Course Sequence

Course	Title	Credit Hours
Year 1		
Term 1		
SON 3402	Introduction to Electrocardiography ¹	3
SON 4404	Adult Cardiac Sonography I ¹	3
SON 4945	Adult Cardiac Practicum 1 ²	4
Credit Hours		10
Term 2		
SON 4131	Pediatric Cardiac Sonography	4
SON 4944	Pediatric Cardiac Sonography Practicum	4
Credit Hours		8
Term 3		
SON 4132	Adult and Pediatric Cardiac Sonography Seminar	2
SON 4405	Adult Cardiac Sonography 2	3
SON 4946	Adult Cardiac Practicum 2	4
Credit Hours		9
Total Credit Hours		27

1.

Classroom/lab assignments: 48 hours

2.

360 combination clinical/lab hours + objectives

Learning Outcomes

These outcomes apply to the Advanced Technical Certificate

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. Evaluate pediatric cardiac case studies.
 - Core Ability Supported: Think critically and Solve Problems
- 5. Examine certification exam areas of general knowledge required to perform tasks.
 - Core Ability Supported: Process information
- 6. Illustrate process of pediatric cardiac development.
 - Core Ability Supported: process information