



**SCHOOL OF CARDIAC & VASCULAR ULTRASOUND**

**Catalog and Handbook**

2019 Program Dates:

Vascular: January 8, 2019 – December 18, 2019

Cardiac: July 8, 2019 – June 12, 2020

The Arizona Heart Foundation  
School of Cardiac & Vascular Ultrasound  
1910 E. Thomas Rd, Suite 100  
Phoenix, AZ 85016  
Phone: 602-200-0437 Fax: 602-265-8885  
nashland@azheartfoundation.org  
www.azheartfoundation.org

## Table of Contents

<b>GENERAL INFORMATION</b> .....	4
History.....	4
Mission.....	4
Facilities and Equipment.....	4
License.....	4
Accreditation.....	4
Registries.....	4
Employment.....	4
Catalog .....	4
<b>GOVERNING BODY</b> .....	5
Board of Trustees .....	5
Officials and Faculty.....	6
<b>PROGRAMS OFFERED</b> .....	7
Cardiac and Vascular Ultrasound.....	7
Curriculum.....	7
Admission.....	7
Tuition and Costs .....	7
Fees and Enrollment Documentation .....	7
Additional Expenses.....	7
Dress Code .....	8
<b>CANCELLATION AND REFUNDS</b> .....	8
Denial of Admission or Enrollment .....	8
Three-day Cancellation .....	8
Withdrawal Before Commencement of Program.....	8
Withdrawal After Commencement of Program .....	8
Tuition Refund Schedule .....	8
Tuition Refund Policy for Students Using Veteran Education Benefits .....	9
Equipment, Books and Supplies.....	9
Holder in Due Course Statement .....	9
<b>ATTENDANCE</b> .....	9
<b>AMERICANS WITH DISABILITIES (ADA) POLICY</b> .....	10
<b>ADA GRIEVANCE PROCEDURE</b> .....	10
<b>NON-DISCRIMINATION AND ANTI-HARRASSMENT POLICY</b> .....	11
<b>CODE OF CONDUCT</b> .....	11
Illegal Drugs and Alcohol.....	12
Return of Property .....	13
Notification .....	13
<b>GRIEVANCE PROCEDURE</b> .....	13
<b>ACADEMIC PERFORMANCE</b> .....	14
Grading.....	14
Progress Records.....	14
Requirements for Graduation.....	14
Completion of Program.....	14

<b>CARDIAC PROGRAM</b> .....	15
Description .....	15
Objective .....	15
Goals .....	15
Clock Hours .....	15
Schedule .....	15
<b>CARDIAC COURSE DESCRIPTIONS</b> .....	16
Patient Care .....	16
Physics .....	16
Introduction to Echocardiography .....	16
Advanced Echocardiography .....	16
Imaging Lab .....	16
Clinical Rotation .....	16
<b>CARDIAC 2019-2020 CALENDAR</b> .....	16
<b>CARDIAC CLINICAL SITE OVERVIEW</b> .....	17
Student Responsibilities .....	17
General .....	17
Behavioral and Social .....	18
Technical .....	18
Clinical Site Preceptor .....	18
Cardiac Sonography Student – Master List of Competencies .....	19
Patient Care Duties Not to be Provided by Students .....	19
<b>VASCULAR PROGRAM</b> .....	20
Description .....	20
Objective .....	20
Goals .....	20
Clock Hours .....	20
Schedule .....	20
<b>VASCULAR COURSE DESCRIPTIONS</b> .....	21
Patient Care .....	21
Physics .....	21
Introduction to Vascular .....	21
Advanced Vascular .....	21
Imaging Lab .....	21
Clinical Rotation .....	21
<b>VASCULAR 2019 CALENDAR</b> .....	21
<b>VASCULAR CLINICAL SITE OVERVIEW</b> .....	22
Student Responsibilities .....	22
General .....	22
Behavioral and Social .....	23
Technical .....	23
Clinical Site Preceptor .....	23
Cardiac Sonography Student – Master List of Competencies .....	23
Patient Care Duties Not to be Provided by Students .....	24
<b>ACKNOWLEDGMENT OF RECEIPT OF PROGRAM CATALOG AND HANDBOOK</b> .....	25

## **GENERAL INFORMATION**

### History

The Arizona Heart Foundation was established in 1971 by Edward B. Diethrich, MD, an internationally-renowned cardiovascular surgeon, to develop and support research and education programs. The Foundation has continually prioritized educational opportunities for physicians, nurses, students, and the public at large as established under the leadership of Dr. Diethrich. Today our major focus is the Arizona Heart Foundation School of Cardiac & Vascular Ultrasound (School) which was established in 1982.

### Mission

The mission of the School supports the overall mission of the Foundation: committed to the ongoing fight against cardiovascular disease and the improvement of cardiovascular care through professional education and public awareness.

### Facilities and Equipment

Centrally located in Phoenix, Arizona, the Arizona Heart Foundation building consists of over 30,000 sq. ft. and houses the School and its administrative offices, onsite catheterization labs, physician offices, and a large classroom with state-of-the-art audiovisual capabilities. Additional support services include a student library and computer lab, student lounge, dedicated entrance and free parking.

The School's scanning lab instructional equipment includes Toshiba Aplio 500 ultrasound machines, a viamo laptop, Acuson Sequoia ultrasound systems, a Philips Sonos 5500, and Parks Flow Lab physiological machines.

### License

The School is licensed by the State of Arizona State Board for Private Postsecondary Education for Cardiac & Vascular Ultrasound. The mission of the state agency is to "To protect the health, safety and welfare of Arizona citizens by regulating private postsecondary educational institutions and providing services to their students." ([www.azppse.gov](http://www.azppse.gov)).

### Accreditation

The programs are not accredited by a nationally-recognized accrediting association.

### Registries

All registries are independent agencies and qualifications for taking registry examinations are subject to change. Applicants should research the American Registry of Diagnostic Medical Sonography, ([ARDMS.org](http://ARDMS.org)) and/or Cardiac Credentialing International ([CCI.org](http://CCI.org)) for specific qualifications.

### Employment

The School does not guarantee job placement to graduates upon program completion or graduation.

### Catalog

All statements in this Catalog reflect the approved policies of the School that were in effect at the time of publication. However, the School reserves the right to supplement, change, suspend, or cancel any of the provisions, statements, policies, curricula, procedures, schedules, or fees at any time. The School will publish such changes, suspensions, or cancellations as soon as reasonably practicable.

## **GOVERNING BODY**

### Arizona Heart Foundation Board of Trustees

#### **Officers**

Donald Reid, MD  
Arizona Heart Foundation  
Medical Director

Paula Banahan, RN, BSN, CVNS  
Arizona Heart Foundation  
Chairman, President and CEO

Sean Kerrigan  
Arizona Heart Foundation  
Chief Financial Officer

#### **Members**

Dawna L. Cato, RN, PhD  
President  
Transition to Professional Practice Nurse Consulting, LLC.

Lynne Jackson  
Community Member

Adam Turner  
President and CEO  
Turner, Inc.

### School of Cardiac & Vascular Ultrasound Officials and Faculty

Paula Banahan, RN, BSN, CVNS  
Executive Director

Ms. Banahan graduated magna cum laude with a Bachelor Degree in Science from Boston College School of Nursing and earned her Cardiovascular Nurse Specialist Certification from the Arizona Heart Institute. Paula has been in the healthcare industry for over 40 years and has held several nursing leadership and administrative positions. She developed Arizona's first heart and heart-lung transplant program and later became the executive director of the Arizona Heart Institute. Ms. Banahan is the instructor for Patient Care.

Kelly Gardner, BS, RDCS (AE, PE), RVT  
Director of Vascular Ultrasound Program  
and Development

Ms. Gardner graduated from the University of Toledo with a Bachelor Degree in Science and a Dual-Associate Degree in Echocardiography & Vascular Technology. She is board certified in adult echocardiography, pediatric echocardiography, and vascular ultrasound. With over 24 years of experience in the field of cardiac and vascular sonography, she founded multiple successful, accredited diagnostic imaging centers and a mobile ultrasound company. Ms. Gardner possesses a broad range of technical, teaching, managerial, and business ownership experience.

Jason Kendrick, BA, RDCS (AE) RVT  
Director of Cardiac Ultrasound Program  
and Development

Mr. Kendrick graduated from the University of Oregon and is currently enrolled in Capella University working toward his MBA with a MHA focus. A graduate of Arizona Heart Foundation's School of Cardiac & Vascular Ultrasound, he has been with Banner Hospitals and the Phoenix Indian Medical Center for the past four years. During his time as a high school teacher, Mr. Kendrick designed and implemented a new curriculum for science, health, and PE to be used as an experiential education model.

Malka Stromer, M.Ed, BSc., RDMS, CRGS  
Clinical Coordinator

Ms. Stromer earned her Bachelor of Science and Masters of Education from York University in Toronto, Canada. She has spent the past 13 years of her career as a professor, first at Mohawk College and then at Gateway Community College. She has spoken at various professional events and educational institutions on topics including sonography of the bowel and her research in the ethics of obstetrical ultrasound. She has authored a chapter in a sonography text, won a research award through the SDMS, and most recently earned the John and Suanne Rouche Excellence Award through the League for Innovation in the Community Colleges.

Gail Size, BS, RPhS, RVS, RVT, FSVU  
Director of Accreditation and  
Online Program Development

Ms. Size has over 30 years of technical and managerial experience in both clinical and private vascular laboratories. She is the founder and president of Inside Ultrasound, Inc. Ms. Size has authored numerous publications, including the *Vascular Reference Guide* and *Venous Reference Guide*. She has given multiple presentations internationally and is on the board of trustees of Cardiovascular Credentialing International.

## PROGRAMS OFFERED

### Cardiac and Vascular Ultrasound

Programs include 1,667 clock hours and are offered once a year. Students must participate in all components of the program, including reporting to clinical sites as assigned. The School will review any transcripts or certificates from previous education and training and will grant credit where appropriate.

### Curriculum

The School follows the National Education Curriculum Common Curricula and its Specialty Curricula for Cardiac and Vascular Technology.

### Admission

The School provides access and equal opportunity to all qualified individuals who apply. Applicants must submit a completed application form, two letters of reference, any transcripts or health care certificates; must be at least 18 years of age and hold at least a high school diploma or GED. It is preferable, but not required, that applicants have an associate's or bachelor's degree or certificate in a patient/health care related field (examples include: EMT, paramedic, surgical technologist). Every application is reviewed on an individual basis.

Applicants desiring to complete the clinical component of a program out of state must secure their own clinical site.

Applicants must be able to meet the physical demands required of a medical professional which include but are not limited to lifting or turning patients, standing for extended periods of time, overhead stretching, bending, pushing, or pulling as needed.

Accepted applicants who enroll in a program are referred to as "Students".

### Tuition and Costs

Tuition	\$28,800	Books/Supplies	Included
Registration Fee	\$ 150	Registry Exam Fee	Included (one time only)

If you are a veteran you may be eligible for assistance from the U.S. Department of Veterans Affairs.

### Fees and Enrollment Documentation

Upon acceptance to a program and no later than 2 months prior to the program start date, the following must be submitted:

- (1) Registration fee of \$150.00
- (2) Signed Acknowledgement of Receipt of School Catalog and Handbook
- (3) Signed Enrollment Agreement
- (4) Approved Tuition Agreement

### Additional Expenses

Enrollment is contingent upon the following documents being complete and submitted no later than 1 month prior to the program start date. Any costs are the responsibility of the Student.

- Passport-type photo
- "Clear" or "Negative" grade on the Student's 12-panel drug screen test
- Fingerprint clearance card
- Valid and current CPR (BLS or ACLS) card
- Clear background check
- Proof of medical insurance
- Any additional testing or documentation that may be required by a clinical site.

Documentation of all current immunizations must be on file by the first day of class.

Failure to timely and satisfactorily meet the above requirements may result in a Student's enrollment in a program being suspended or cancelled by the School.

Students are responsible for their own housing, food, supplies, transportation, health insurance, and any other living expenses.

### Dress Code

Students are required to wear professional attire while on School premises and at clinical sites. The following are considered inappropriate and unacceptable attire: open-toed shoes, tank tops, short shorts, mini-skirts, halter tops, midriff tops, t-shirts, visual display of undergarments, hats, artificial nails, wraps or extenders of any length, and any clothing, piercings or body art that may be offensive. All tattoos must be covered.

## **CANCELLATION AND REFUNDS**

### Denial of Admission or Enrollment

An applicant who is denied admission by the School and/or whose enrollment into a program is cancelled by the School due to failure to successfully complete the enrollment process will receive a full refund of all monies paid. The School shall provide the refund no later than thirty (30) days after sending the written notice of denial of admission or cancellation of enrollment.

### Three-day Cancellation

A Student who delivers to the School's Program Director written notice of cancellation within three (3) business days of the Enrollment Agreement will receive a full refund of all monies paid. The School shall provide the refund no later than thirty (30) days after receiving the written notice of cancellation.

### Withdrawal Before Commencement of Program

A Student who delivers to the School's Program Director a written withdrawal before the start of the program will receive a refund of all monies paid toward tuition; however, the \$150.00 registration fee is then nonrefundable. The School shall provide the refund no later than thirty (30) days after receiving the written notice of withdrawal.

### Withdrawal After Commencement of Program

In the case of withdrawal by the Student after commencement of the program in accordance with one of the circumstances described below, the tuition refund amount, if any, will be calculated based on the tuition refund schedule below, and paid within thirty (30) days of the date of withdrawal. The \$150.00 registration fee is then nonrefundable.

1. A Student choosing to withdraw from the School after the commencement of classes is to provide written notice to the Executive Director of the School. The notice is to indicate the expected last date of attendance and be signed and dated by the Student.
2. For a Student who is on authorized Leave of Absence, the withdrawal date is the date the Student was scheduled to return from the Leave and failed to do so.
3. A Student will be determined to be withdrawn from the institution if the Student has not attended any class for 30 consecutive class days.
4. All refunds will be issued within 30 days of the determination of the withdrawal date.

### Tuition Refund Schedule

<b>Clock Hours Attempted</b>	<b>Tuition Refund Amount</b>
10% or less	At least 90%
More than 10% and less than or equal to 20%	At least 80%
More than 20% and less than or equal to 30%	At least 70%
More than 30% and less than or equal to 40%	At least 60%
More than 40% and less than or equal to 50%	At least 50%
More than 50%	Refund will not be issued

### Tuition Refund Policy for Students Using Veteran Education Benefits

The Arizona Heart Foundation's School of Cardiac & Vascular Ultrasound Veteran's Tuition Refund Policy complies with CFR 21.4255. In the event the veteran or eligible person fails to enter the course, withdraws, or is dismissed at any time prior to completion, any unused portion of tuition, fees, and other charges is refunded. Any amount more than \$10 of the application/registration fee is subject to proration.

The amount charged will not exceed the exact pro-rata portion of total charges. The length of the completed portion of the program will be prorated over its total length, and the exact proration will be determined by the ratio of the number of days of instruction completed by the Student, to the total number of instructional days in the course. Refunds are made within 40 days of the last date of the Student's attendance.

### Equipment, Books and Supplies

Required textbooks are provided by the Program. Any equipment, supplies, additional books, or materials provided by the Program are the sole property of the Program and must be returned upon completion of the Program, withdrawal from the School, expulsion from the School, or as requested by the School's Program Director, unless otherwise stated.

### Holder in Due Course Statement

Any holder of this consumer credit contract is subject to all claims and defenses which the debtor could assert against the seller of goods or services obtained pursuant hereto or with the proceeds, hereof Recovery hereunder by the debtor shall not exceed amounts paid by the debtor (FTC Rule effective 5-1476).

IN THE EVENT A SPECIFIC CIRCUMSTANCE IS NOT ADDRESSED ABOVE, THE SCHOOL RESERVES THE RIGHT TO EXERCISE ITS DISCRETION AND DETERMINE WHETHER A REFUND, IN WHOLE OR IN PART, WILL BE PROVIDED TO THE STUDENT AND, IF SO, UNDER WHAT TIMELINE.

## **ATTENDANCE**

The intense curriculum of the Program requires consistent, timely, and complete attendance. Students must attend every day; vacation time will not be allowed. Sick leave is granted to Students as a protection to their health as well as the health of their peers and patients. Sick leave is granted at the rate of one day per month, non-accumulated. More than one sick day in any 30-day period will be made up at the discretion of the Program Director and clinical site preceptor and/or department supervisor based on the clinical rotation and/or academic work missed during the absence.

In the event of any illness or injury that causes a Student to be absent for more than one day, and at the discretion of the Program Director, a physician's release may be required to return to School.

Arriving late to class or clinical site and leaving early from class or clinical site generally will be considered an unexcused absence. If you are going to be absent from class or clinical site, including arriving late or leaving early, it is your responsibility to report any absence to the Program Director or the clinical site preceptor and/or department supervisor, as applicable, before the start of the class/scheduled clinic. If the absence, tardy, or need to leave early is due to an unforeseeable circumstance outside of your control, it is your responsibility to advise the Program Director and clinical site preceptor and/or department supervisor as soon as practicable.

Whether absences are considered EXCUSED is within the sole discretion of the Program Director and clinical site preceptor and/or department supervisor based on the clinical rotation and/or academic work missed during the absence. Absences from unannounced tests and quizzes and any other assignments may be made up at the sole discretion of the instructor.

Failure to comply with the above guidelines will result in an UNEXCUSED absence. The first unexcused absence will be documented in writing. The Student will be counseled, and document will become part of the Student's permanent record. Unless otherwise protected by law, the second unexcused absence will result in a suspension period to be determined by the Program Director, and the third unexcused absence will result in expulsion from the Program. Furthermore, excessive excused absences and/or tardiness also may result in discipline, including suspension or expulsion from the Program, unless otherwise protected by law.

## **AMERICANS WITH DISABILITIES (ADA) POLICY**

The School does not discriminate in admission or access to our Program based on age, race, color, sex, disability, religion, sexual orientation, national origin, or any other category protected by federal or state law. If you would like to request an accommodation, please contact our ADA Compliance Coordinator. The School will work with the applicant or Student to determine whether reasonable accommodations can be effective and/or are available.

Anyone requesting an accommodation, auxiliary aid or service should:

1. Notify the Compliance Coordinator in writing of the type of accommodation needed, date needed, documentation of the nature and extent of the disability, and of the need for the accommodation or auxiliary aid. The request should be made at least four weeks in advance of the date needed.

ADA Compliance Coordinator:

Nancy Ashland

Arizona Heart Foundation

1910 E Thomas Rd, Suite 100, Phoenix, AZ 85016

nashland@azheartfoundation.org, 602-604-5009, Fax: 602-265-8885

2. The Compliance Coordinator will respond within two weeks of receiving the request.
3. If you would like to request reconsideration of the decision regarding your request, please contact the Compliance Coordinator within one week of the date of the response. Please provide a statement of why and how you think the response should be modified.

## **ADA GRIEVANCE PROCEDURE**

Any person who believes she/he has been subjected to discrimination based on disability, or who wishes to appeal an approved accommodation pursuant to this policy, may file a grievance as outlined on Page 13 of this Catalog. The School will not retaliate against anyone who files a grievance in good faith or cooperates in the investigation of a grievance.

## **NON-DISCRIMINATION AND ANTI-HARRASSMENT POLICY**

The School does not discriminate in admission or access to our Program based on age, race, color, sex, disability, religion, sexual orientation, national origin, or any other category protected by federal or state law. Arizona Heart Foundation is committed to maintaining an environment that is free of unlawful harassment and discrimination. In keeping with this commitment, the School will not tolerate any form of unlawful discrimination or harassment by anyone, including any supervisor, co-worker, or non-employee. Harassment consists of unwelcome conduct, whether verbal, physical or visual, that is based on a person's race, color, national origin, religion, age, sex, disability, genetic information, marital status, veteran status, sexual orientation, gender identity or any other characteristic protected by law.

Harassment includes, but is not limited to, derogatory remarks, epithets, offensive jokes, the display or circulation of offensive printed or visual material, or offensive physical actions directed at one of the above categories that unreasonably interferes with a person's working environment or creates an intimidating, offensive, hostile work environment.

Sexually harassing behavior includes, but is not limited to, unwelcome sexual advances, requests for sexual favors, or other physical, verbal or visual conduct of a sexual nature. Such conduct may constitute sexual harassment when: (1) submission to the conduct is made an explicit or implicit term or condition of employment or is used as the basis for employment action affecting such individual; or (2) the conduct has the effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive workplace. This type of conduct may include, but is not limited to, sexual propositions, innuendo, suggestive comments, sexually oriented jokes or teasing, or unwelcome physical contact such as patting, pinching, or brushing against another.

All employees, staff members, and Students are responsible for helping to enforce this policy against discrimination and harassment. If you believe the actions or words of a supervisor, co-worker, or a nonemployee constitute sexual harassment or other unlawful harassment or discrimination, you have a responsibility to promptly notify the President/CEO.

It is the School's policy to investigate all such complaints thoroughly, promptly, and as impartially as possible. To the fullest extent practicable, the School will maintain the confidentiality of those involved. If an investigation confirms that a violation of this policy has occurred, the School will take corrective action, which may include disciplinary action, up to and including termination. The School also forbids retaliation against anyone for reporting harassment or for cooperating in the investigation of a harassment complaint.

## **CODE OF CONDUCT**

Students are expected to meet the School's standards and expectations for academic and ethical performance and professional behavior when interfacing with the persons in the clinical facility and classroom. If a Student is not meeting the academic and ethical standards or the professional behavior standards of the School, the School will take the corrective or disciplinary action it considers appropriate depending on the totality of the circumstances. The various actions may include verbal warning, written warning, suspension, and/or immediate expulsion. The School reserves the right in each case to take the action it considers appropriate and in the best interests of the School.

Examples of circumstances under which a Student may be subject to discipline, up to and including expulsion, include but are not limited to the following guidelines related to the School's standards and expectations for academic and ethical performance, as well as professional behavior:

1. Academic Dishonesty: Academic dishonesty is any word, action or deed performed alone, or with others for the direct or indirect intention of providing an unfair advantage or benefit to self or other Student(s) including:

- cheating	- misrepresentation
- plagiarism	- giving or receiving illicit aid in class work or other work used as a basis for grading
- unapproved collaboration	- failure to report to Program Director observations of academic dishonesty by others
- alteration of records	
- bribery	
- lying	

2. Outstanding Fees – Failure to timely pay tuition or other fees due to the School.
3. Code of Conduct – Violation of the Code of Conduct.
4. Arriving to class or clinical site impaired by alcohol or with illegal drugs in your system; the manufacture, distribution, dispensation, possession, sale, purchase, transfer or use of illegal drugs at School or the clinical site.
5. Significant Omissions or Errors in Admissions Documentation – Knowingly or in error misrepresent an application is subject to immediate expulsion.
6. Academic Failure – Failing to achieve the required academic standing in the Program.
7. Attendance – Unless otherwise protected by law, failing to achieve the required attendance of the School and the assigned clinical site; persistent tardiness.
8. Harassment or Discrimination – Participating in harassing or discriminatory activities of any Student, staff, clinical staff person, patient, client or visitor to the School or clinical site.
9. Misuse of School Property – Damaging, misusing, stealing or otherwise using without permission the property of the School or assigned clinical site in a way that is prohibited.
10. Endangerment of Staff or Students – Endangering the safety of themselves or others at the School or the assigned clinical site.
11. Disruptive, disorderly, violent or threatening behavior at the School or the assigned clinical site.
12. Defiance of authority of School administrators and instructors, as well as clinical site supervisor, instructors, and staff.
13. The harassment, bullying, demeaning or otherwise oppression of Arizona Heart Foundation School of Cardiac & Vascular Ultrasound, its programs, faculty, staff or other Students.
14. Conduct detrimental to Arizona Heart Foundation School of Cardiac & Vascular Ultrasound, its programs, faculty, staff or other Students.
15. Actions that bring discredit upon Arizona Heart Foundation School of Cardiac & Vascular Ultrasound.

#### Illegal Drugs and Alcohol

Arizona Heart Foundation School of Cardiac & Vascular Ultrasound has a zero-tolerance policy for illegal substances on campus and at clinical sites. The School prohibits the unlawful use, possession, or distribution of controlled substances and alcohol by Students and employees on the School's property or as part of School activities. The School reserves the right to require random drug testing.

The School recognizes that alcoholism, drug addiction, and substance abuse may represent illnesses that require professional counseling, treatment, and rehabilitation. The abuse of alcohol or drugs can be hazardous to an individual's health and safety, as well as an impediment to academic and personal success. Because the health and safety of Students and employees are paramount to the School, those who are affected by alcohol and/or substance abuse are encouraged to utilize referrals provided by the School.

In addition to the above, in the case where the Student has committed a crime or violation of the law, the School will notify law enforcement.

The School reserves the right to suspend or cancel the Student's enrollment in the Program at any time if, in the School's sole judgment, the Student fails to comply with attendance requirements, academic standards, financial requirements, the School's Code of Conduct, zero tolerance policy for illegal substances, or otherwise disrupts the normal activities of the School. If a Student is expelled for any reason, there will be no reimbursement of tuition.

#### Return of Property

A Student who is expelled is responsible for the return of any School property in his/her own possession within 10 days and will be held financially responsible for any property not returned in good condition.

#### Notification

Students who are subject to expulsion for any reason will be notified in writing, either hand delivered or by registered mail with return receipt. The School is not responsible for non-delivery by registered mail if the Student has not provided a valid home address where the Student currently resides.

The notification will contain a general description of the basis for expulsion and the effective date. Expelled Students who dispute the facts of the expulsion must appeal the decision within three business days of the date of the notification. The appeal may be filed as outlined in the School's Grievance Procedure.

The amount of tuition reimbursement granted to an expelled Student will be up to the sole discretion of the School.

Students who have been expelled may submit application documents for a future program.

### **GRIEVANCE PROCEDURE**

The School is committed to ensuring that Students with grievances relating to the School and/or Program, the administration, and/or other personnel use a process that may resolve their concerns as promptly, confidentially, and as fairly as practicable under the circumstances.

If you have a grievance, you first should discuss it informally with the individual directly involved in the matter. If you are not comfortable doing so, or the matter is not resolved through this initial step, you should submit your written grievance within three (3) business days of the event at issue or initial discussion, to:

Paula Banahan, Executive Director  
Arizona Heart Foundation School of Cardiac & Vascular Ultrasound  
1910 E. Thomas Rd, Ste. 100  
Phoenix, AZ 85016

The executive director will respond in writing within 10 business days.

If the Student complaint cannot be resolved after exhausting the School's Grievance Procedure, the Student may file a complaint with the Arizona State Board for Private Post-Secondary Education. You must contact the State Board for further details. The State Board address is 1400 West Washington, Room 260, Phoenix, AZ, 85007, 602-542-5709, or [www.azppse.gov](http://www.azppse.gov).

## ACADEMIC PERFORMANCE

### Grading

The School's grading system is based on the following standard:

90% - 100% = A	80% - 89% = B	70% - 79% = C	60% - 69% = D	Below 60% = F
----------------	---------------	---------------	---------------	---------------

The minimum satisfactory grade level required to graduate the Program is a "C" or higher. A grade level of "D" or lower is unsatisfactory and will require immediate counseling. Failure to improve the grade level to a "C" or higher within the next 30 days will result in the beginning of a 30-day probation period. Failure to improve the grade level to a "C" or higher at the end of the designated 30-day probation period (60 days from the initial counseling) will result in expulsion from the program. Tutoring services are recommended to the Student and provided at no additional cost.

### Progress Records

Class sizes are kept small to allow for constant feedback between instructor and Student. Therefore, we seek to constantly keep Students updated on their progress in class, whether positive or in need of improvement. All grades given to Students for work completed are kept by the School and are available upon reasonable request by the Student. Requests for transcripts should be directed to Nancy Ashland, nashland@azheartfoundation.org.

### Requirements for Graduation

To graduate with a certificate of completion from the Program Students are required to successfully complete all didactic and clinical education courses as well as hours and clinical caseloads. A minimum of a "C" passing grade is required.

All Students are required to successfully pass either the Registered Cardiac Sonography (RCS) exam or the Registered Vascular Sonography (RVS) exam conducted by Cardiovascular Credentialing International (CCI).

In addition, all financial obligations to the program must be fulfilled, or a fully-executed Tuition Agreement in place.

### Completion of Program

Upon successful completion of the program Students are awarded clock hours and an undergraduate certificate. It should not be assumed that any programs described in the Catalog could be transferred to another institution. The School does not guarantee the transferability of credits to a college, university or institution. Any decision on the comparability, appropriateness and applicability of credits and whether they should be accepted is the decision of the receiving institution.

## CARDIAC PROGRAM

### Description

The cardiac program is designed to meet and exceed the minimum clock hour requirements as recommended by Cardiovascular Credentialing International (CCI). Students are prepared to successfully pass the Registered Cardiac Sonography (RCS) exam conducted by CCI.

### Objective

The program offers in-depth clinical experience that will enable Students to produce accurate, high quality echocardiographic images through classroom instruction, hands-on experience with patient models, anatomical lab opportunities, and clinical rotations. Students will have the opportunity to learn the distinction between normal and abnormal cardiovascular anatomy and physiology and gain an understanding of basic pathology and cardiovascular diagnostic procedures.

### Goals

The goals of the program are to educate and develop skilled cardiac sonographers and to assist them in understanding the importance of their role in the allied health care team as they contribute to patient care.

- Receive an integrated didactic classroom and clinical experience.
- Become proficient in all aspects of adult echocardiography at an entry level position.
- Apply principles of anatomy and physiology of the human body to the ultrasound examination.
- Apply the principles of the various testing modalities associated with cardiac examinations.
- Identify disease states and their influence on the examination.
- Demonstrate interpersonal relationships including moral and ethical responsibilities for effective communication and empathy for the patient.
- Understand supplementary techniques such as angiography, CT, CTA, MRA and nuclear medicine.
- Successfully pass the RCS exam.

### Clock Hours (49 weeks)

Patient Care	25
Physics	65
Introduction to Echocardiography	156
Advanced Echocardiography	147
Imaging Lab	426
Clinical Rotation	848
Total	1667

### Schedule

Classroom sessions and clinical rotations average 35 hours per week. Some weekend and/or evening hours may be required.

Cardiac Students are required to participate in TOPS (Team of Physicians for Students) and Bates Foundation screenings as scheduled.

## CARDIAC COURSE DESCRIPTIONS

### Patient Care

This course includes an overview of cardiac anatomy, physiology, medical terminology, pharmacology, basic diagnostic procedures, blood-borne pathogens, pathophysiology and infectious diseases. It also includes how to interact with patients in a clinical setting as well as the topic of professionalism.

### Physics

By following the National Education Common Curricula, the theory of ultrasound physics and how to apply these principles to imaging studies are discussed. Multi-media presentations are employed to demonstrate the ultrasound physics principles and instrumentation.

### Introduction to Echocardiography

This comprehensive course will provide an overview of the basic principles of adult echocardiography, including the technique of performing cardiac ultrasound examinations. The standard measurements for each echocardiography discipline will be presented; normal anatomy as well as cardiac pathology will be emphasized. Each component of the cardiovascular principles examination outline will be presented. Major topics include anatomy and physiology, technique, Doppler, valvular heart disease, ischemic heart disease, diseases of the aorta, congenital heart disease, pericardial disease, hypertension, cardiomyopathies, and cardiac tumors.

### Advanced Echocardiography

This course will be the final preparation for the registry exam. Students will have an in-depth understanding of the cardiac cycle, cardiac anatomy and physiology, standard 2-D views, M-mode and real-time measurements, Doppler calculations, pathology and stress echocardiography.

### Imaging Lab

This course ensures the development of the Student's scanning skills as well as the appropriate use of protocol. Students begin training in the School's imaging lab during the first week of the program. Patient models are used exclusively to help Students identify a variety of anatomies and indications. Students will be fully prepared to enter echo clinical rotations and perform studies independently.

### Clinical Rotation

Students are required to report to all clinical sites as assigned. Students gain independence and confidence while increasing their skill level under the direct supervision of the clinical instructors.

## CARDIAC 2019-2020 CALENDAR

First Day of Program		July 8, 2019
Holidays	Labor Day	September 2
	Thanksgiving	November 25-29
	Winter Break	December 23, 2019-January 3, 2020
	Spring Break	March 16-20
	Memorial Day	May 25
Last Day of Program		June 12, 2020
Graduation		Date to be determined

The schedule may be amended or suspended, at any time, at the School's sole discretion, with or without notice.

## **CARDIAC CLINICAL SITE OVERVIEW**

Clinical rotation hours are included in the Program. Students will not be assigned to a clinical site until it has been determined by the School that this privilege has been earned as evidenced by the Student's academic and ethical performance, adherence to the School's Code of Conduct, scanning proficiency, professional behavior, attendance, promptness and compliance with any Tuition Agreement with the School. Students are required to report to all clinical sites as assigned.

The goal of the clinical rotation in the current curriculum is to prepare the Student to perform step-by-step limited, and later complete, cardiac sonography exams under direct supervision. The Student will practice exercising independent judgment relative to the entirety of the sonography test performed.

All practical training will be monitored and under direct supervision of the school. The planned program of activities will be controlled by the School and not by officials at the clinical site.

### Student Responsibilities

Under the direct supervision of the clinical site preceptor/staff designee, the sonography Student will be responsible for the following duties:

1. Patient interviews relevant to the cardiovascular indications.
2. Instruction and patient preparation for the exam.
3. Quality control testing for the ultrasound machine/transducers.
4. Execution of patient imaging procedures including:
  - Routine and complex echocardiograms
  - Treadmill and pharmacological stress echocardiograms
  - Transesophageal echocardiogram (TEE)
  - Computer image acquisition and image enhancement
  - Patient preparation for various procedures
  - Preparation of the preliminary report
5. Demonstrate knowledge and understanding of cardiac pathology, pathophysiology, and hemodynamics in different disease states.
6. Must have an understanding of ultrasound physics and instrumentation.
7. Exhibit professionalism in the performance of these duties, demonstrate an empathetic and instructional approach to patient care, and maintain confidentiality of information as required.
8. Achieve professional growth and development through participation in medical and technical education and research to enhance the quality of patient care.
9. Take care of the patient while in the department and may be required to assist with patient issues such as vomiting, bleeding, CPR, and/or ACLS procedures.

### General

The sonography Student on clinical rotation must:

- Possess these intellectual skills: comprehension, measurement, mathematical calculation, problem solving, reasoning, integration, analysis, comparison, self-expression and criticism.
- Be able to exercise sufficient judgment to recognize and correct performance deviations.
- Be prepared to recognize any condition, whether observed in the ultrasound exam or in patient behavior, which may pose immediate threat to health or life and react appropriately.
- Attend class a minimum of one day a week in order to maintain interaction with instructors.

### Behavioral and Social

The sonography Student on clinical rotation must:

- Be able to manage time to complete didactic and clinical tasks within reasonable time constraints.
- Possess emotional health necessary to effectively employ intellect and exercise appropriate judgment.
- Be able to provide professional and technical services in spite of the stress of heavy workloads.
- Be flexible, creative and adaptable to clinical and didactic changes.
- Recognize potentially hazardous materials, equipment and situations and be able to proceed safely to reduce risk of injury to patient or self.
- Support and promote the activities of fellow Students and health care professionals.
- Be honest, compassionate, ethical and responsible.
- Always safeguard and preserve the confidentiality of patient information in accordance with office policy.

### Technical

The sonography Student on clinical rotation must assist the clinical site preceptor/staff designee to perform echocardiographic procedures by demonstrating appropriate competency in the following:

- Obtain appropriate clinical history in order to adapt the imaging techniques accordingly.
- Patient education.
- Patient care and management.
- Record complete physiologic ultrasound exam consisting of 2D, M-mode, pulsed (PW) and continuous wave (CW) Doppler and color flow imaging, making appropriate quantitative calculations from the data recorded.
- Perform exercise echocardiography and pharmacological stress testing.
- Assist in the performance of transesophageal (TEE) echocardiograms.
- Assist in the Bubble/Saline study.
- Determine if contrast injection is indicated and act accordingly.
- Equipment configuration and operation.
- Positioning skills.
- Ultrasound safety.

In addition to the above, other duties as indicated by clinical instructor or program/school policies.

### Clinical Site Preceptor

Per guidelines from Commission on Accreditation of Allied Health Education Program (“CAAHEP”) and Joint Review Committee-Cardiovascular Technology (“JRC CVT”) the following apply in connection with the clinical site preceptor:

#### ▪ Responsibilities

Although Students will work with many sonographers in the clinical setting, a clinical site preceptor/instructor shall be designated as the primary contact for the Student and the Program Director. The clinical site preceptor/staff designee must be available to Students whenever he or she is assigned to a clinical site, provide appropriate clinical supervision, and be responsible for Student clinical evaluation.

#### ▪ Qualifications

The designated clinical instructor must hold the RDCS (through the ARDMS) credential or the RCS (through CCI) credential and have appropriate education and experience to fulfill the minimal qualification requirements.

### Cardiac Sonography Student - Master List of Competencies

Below is a list of competencies that the sonography Student must successfully complete in order to demonstrate acquired skills in the performance and evaluation of the adult cardiac studies. The competencies consist of General Competencies that are evaluated in the Clinical Evaluation form for each semester and the Scanning Competencies that are assessed in the Student's performance of the Scanning Task Sheets.

1. Demonstrate and practice intra and interdepartmental skills.
2. Demonstrate and practice effective communication (verbal, non-verbal, written).
3. Utilize professional conduct and demonstrate professional judgment.
4. Demonstrate initiative and display positive attitude.
5. Provide effective and safe patient care.
6. Demonstrate critical thinking skills.
7. Utilize correct scanning technique.
8. Recognize and identify cardiac anatomic structures.
9. Utilize scanning skills to perform PW, CW, color Doppler imaging studies.

### Patient Care Duties Not to be Provided by Students

The sonography Student must not perform the following clinical care duties independently:

1. Discuss the echocardiography findings/diagnosis/prognosis/treatment plans or surgical advice to the patients and their relatives.
2. Administration of IV/IM/Intra-cardiac drugs.
3. If the patient refuses examination by a sonography Student the Student must stop, leave the room, fulfill the patient's wishes for privacy, and report this to the supervisor.
4. While examining all populations of patients for cardiac ultrasound procedures appropriate caution must be exercised per guidelines from the hospital.
5. Patient information, including personal or medical records and cardiac or vascular sonographic scans, are not to be removed from the premises, nor copied in any format, without express written request from the Program Director of the School. In such case, all patient identification and medical record numbers must be deleted.
6. Medical equipment, devices, and supplies are not to be removed from the premises by the Student.

## VASCULAR PROGRAM

### Description

The vascular program is designed to meet and exceed the minimum clock hour requirements as recommended by Cardiovascular Credentialing International (CCI). Students are prepared to successfully pass the Registered Vascular Specialist (RVS) exam conducted by CCI.

### Objective

The program offers in-depth clinical experience that will enable Students to produce accurate, high quality vascular images through classroom instruction, hands-on experience with patient models, anatomical lab opportunities, and clinical rotations. Students will have the opportunity to learn the distinction between normal and abnormal vascular anatomy and physiology and gain an understanding of basic pathology and vascular diagnostic procedures.

### Goals

The goals of the program are to educate and develop skilled vascular sonographers and to assist them in understanding the importance of their role in the allied health care team as they contribute to patient care.

- Receive an integrated didactic classroom and clinical experience.
- Become proficient in all aspects of non-invasive vascular scanning at an entry level position.
- Apply principles of anatomy and physiology of the human body to the ultrasound examination.
- Identify disease states and their influence on the examination.
- Be able to recognize common vascular pathology.
- Demonstrate interpersonal relationships including moral and ethical responsibilities for effective communication and empathy for the patient.
- Understand supplementary techniques such as angiography, CT, CTA, MRA and nuclear medicine.
- Successfully pass the RVS exam.

### Clock Hours (50 weeks)

Patient Care	25
Physics	65
Introduction to Vascular	156
Advanced Vascular	147
Imaging Lab	426
Clinical Rotation	848
Total	1667

### Schedule

Classroom sessions and clinical rotations average 35 hours per week. Some weekend and/or evening hours may be required.

## VASCULAR COURSE DESCRIPTIONS

### Patient Care

This course includes an overview of medical terminology, pharmacology, basic diagnostic procedures, blood-borne pathogens, pathophysiology and infectious diseases. How to interact with patients in a clinical setting as well as the topic of professionalism will be discussed.

### Physics

By following the National Education Common Curricula, the theory of ultrasound physics and how to apply these principles to imaging studies are discussed. Multi-media presentations are employed to demonstrate the ultrasound physics principles and instrumentation.

### Introduction to Vascular

This comprehensive course will provide an overview of ultrasound and sound in general. It will explain ultrasound as in imaging technology using high-frequency waves to characterize tissue. It will cover how it is a useful and flexible modality in medical imaging, and often provides an additional or unique characterization of tissues compared to other modalities. This course will also introduce vascular ultrasound including an introduction of the arterial and venous system of the human body, and introduction to scanning the following vascular studies: carotid duplex, extremity arterial, extremity venous, abdominal aortic duplex, aortoiliac duplex, renal artery duplex and ABI (ankle brachial index).

### Advanced Vascular

This all-encompassing course will provide an in-depth overview of vascular anatomy of the human body; including cerebrovascular, intracranial, extremity arterial, extremity venous and abdominal vasculature in relationship to the abdominal aorta, mesenteric and renal arteries/veins. This course will also be the final preparation for the registry exam.

### Imaging Lab

This course ensures the development of the Student's scanning skills as well as the appropriate use of protocol. Students begin training in the School's imaging lab during the first week of the program. Patient models are used exclusively to help Students identify a variety of anatomies and indications. Students will be fully prepared to enter vascular clinical rotations and perform studies independently.

### Clinical Rotation

Students are required to report to all clinical sites as assigned. Students gain independence and confidence while increasing their skill level under the direct supervision of the clinical instructors.

## VASCULAR 2019 CALENDAR

First Day of Program		January 8, 2019
Holidays	Spring Break	March 11-15
	Memorial Day	May 27
	Summer Break	July 1-5
	Labor Day	September 2
	Thanksgiving	November 25-29
Last Day of Program		December 18
Graduation		Date to be determined

The schedule may be amended or suspended, at any time, at the School's sole discretion, with or without notice.

## VASCULAR CLINICAL SITE OVERVIEW

Clinical rotation hours are included in the Program. A Student will not be assigned to a clinical site until it has been determined by the School that this privilege has been earned as evidenced by the Student's academic and ethical performance, adherence to the School's Code of Conduct, scanning proficiency, professional behavior, attendance, promptness and compliance with any Tuition Agreement with the School. Students are required to report to all clinical sites as assigned.

The goal of the clinical rotation in the current curriculum is to prepare the sonography Student to perform step-by-step limited, and later complete, vascular sonography exams under direct supervision. The Student will practice exercising independent judgment relative to the entirety of the sonography test performed.

All practical training will be monitored and under direct supervision of the School. The planned program of activities will be controlled by the School and not by officials at the clinical site.

### Student Responsibilities

Under the direct supervision of the clinical site preceptor/staff designee, the sonography Student will be responsible for the following duties:

1. Patient interviews relevant to the cardiovascular indications.
2. Instruction and patient preparation for the exam.
3. Quality control testing for the ultrasound machine/transducers.
4. Execution of patient imaging procedures including:
  - Routine and complex vascular studies
  - Computer image acquisition and image enhancement
  - Patient preparation for various procedures
  - Preparation of the preliminary report
5. Demonstrate knowledge and understanding of vascular pathology, pathophysiology, and hemodynamics in different disease states.
6. Have an understanding of ultrasound physics and instrumentation.
7. Exhibit professionalism in the performance of these duties, demonstrate an empathetic and instructional approach to patient care, and maintain confidentiality of information as required.
8. Achieve professional growth and development through participation in medical and technical education and research to enhance the quality of patient care.
9. Take care of the patient while in the department and may be required to assist with patient issues such as vomiting, bleeding, CPR, and/or ACLS procedures.

### General

The sonography Student on clinical rotation must:

- Possess these intellectual skills: comprehension, measurement, mathematical calculation, problem solving, reasoning, integration, analysis, comparison, self-expression and criticism.
- Be able to exercise sufficient judgment to recognize and correct performance deviations.
- Be prepared to recognize any condition, whether observed in the ultrasound exam or in patient behavior, which may pose immediate threat to health or life and react appropriately.
- Attend class a minimum of one day a week in order to maintain interaction with instructors.

### Behavioral and Social

The sonography Student on clinical rotation must:

- Be able to manage time to complete didactic and clinical tasks within reasonable time constraints.
- Possess emotional health necessary to effectively employ intellect and exercise appropriate judgment.
- Be able to provide professional and technical services in spite of the stress of heavy workloads.
- Be flexible, creative and adaptable to clinical and didactic changes.
- Recognize potentially hazardous materials, equipment and situations and be able to proceed safely to reduce risk of injury to patient or self.
- Support and promote the activities of fellow Students and healthcare professionals.
- Be honest, compassionate, ethical and responsible.
- Always safeguard and preserve the confidentiality of patient information in accordance with office policy.

### Technical

The sonography Student on clinical rotation must assist the clinical site preceptor/staff designee to perform vascular procedures by demonstrating appropriate competency in the following:

- Obtain appropriate clinical history in order to adapt the imaging techniques accordingly.
- Patient education.
- Patient care and management.
- Record complete physiologic ultrasound exam consisting of 2D, pulsed (PW) Doppler and color flow imaging, making appropriate quantitative calculations from the data recorded.
- Equipment configuration and operation.
- Positioning skills.
- Ultrasound safety.

In addition to the above, other duties as indicated by clinical instructor or program/school policies.

### Clinical Site Preceptor

Per guidelines from Commission on Accreditation of Allied Health Education Program (“CAAHEP”) and Joint Review Committee-Cardiovascular Technology (“JRC CVT”) the following apply in connection with the clinical site preceptor:

#### ▪ Responsibilities

Although Students will work with many sonographers in the clinical setting, a clinical site preceptor/instructor shall be designated as the primary contact for the Student and the Program Director. The clinical site preceptor/staff designee must be available to Students whenever he or she is assigned to a clinical site, provide appropriate clinical supervision, and be responsible for Student clinical evaluation.

#### ▪ Qualifications

The designated clinical instructor must hold the RDCS (through the ARDMS) credential or the RCS (through CCI) credential and have appropriate education and experience to fulfill the minimal qualification requirements.

### Vascular Sonography Student - Master List of Competencies

Below is a list of competencies that the Student must successfully complete in order to demonstrate acquired skills in the performance and evaluation of adult vascular studies. The competencies consist of General Competencies that are evaluated in the Clinical Evaluation form for each semester and the Scanning Competencies that are assessed in the Student’s performance of the Scanning Task Sheets.

1. Demonstrate and practice intra and interdepartmental skills.
2. Demonstrate and practice effective communication (verbal, nonverbal, written).
3. Utilize professional conduct and demonstrate professional judgment.

4. Demonstrate initiative and display positive attitude.
5. Provide effective and safe patient care.
6. Demonstrate critical thinking skills.
7. Utilize correct scanning technique.
8. Recognize and identify vascular anatomic structures; recognize and identify vascular pathology and associated findings.
9. Utilize scanning skills to perform PW, color Doppler imaging during vascular studies.

Patient Care Duties Not To Be Provided By Students

The Student sonographer must not perform the following clinical care duties independently:

1. Discuss the vascular ultrasound findings/diagnosis/prognosis/treatment plans or surgical advice to the patients and their relatives.
2. Administration of IV/IM/Intra-cardiac drugs.
3. If the patient refuses examination by a Student sonographer the Student must stop, leave the room, fulfill the patient's wishes for privacy, and report this to the supervisor.
4. While examining all populations of patients for vascular ultrasound procedures appropriate caution must be exercised per guidelines from the hospital.
5. Patient information, including personal or medical records and cardiac or vascular sonographic scans, are not to be removed from the premises, nor copied in any format, without express written request from the Program Director of the School. In such case, all patient identification and medical record numbers must be deleted.
6. Medical equipment, devices, and supplies are not to be removed from the premises by the Student.



**ACKNOWLEDGMENT OF RECEIPT OF CATALOG AND HANDBOOK**

By signing below, I certify and acknowledge the following:

1. I have received and read a copy of the Arizona Heart Foundation School of Cardiac & Vascular Ultrasound Catalog and Handbook.
2. I agree to abide by the policies set forth in the Catalog and Handbook, including the Code of Conduct.
3. I understand that the provisions, statements, policies, curricula, procedures, schedules, and fees described in this Catalog and Handbook are subject to change, suspension, cancellation or may be varied by the School at any time. I also understand that any information contained herein may be waived, modified, suspended, altered or eliminated, at the sole discretion of the School, depending on the circumstances of a given situation.
4. I accept responsibility for keeping informed relative to any changes to this Catalog and Handbook.

\_\_\_\_\_  
Student's *printed* name

\_\_\_\_\_  
Student's *signature*

\_\_\_\_\_  
Date Acknowledged

NOTE: This page must be signed, dated, and returned to the School with a signed Enrollment Agreement.