

Echocardiography Program

PREFACE

WVU Hospitals offers a 12-month, 40 hour-per week education program in Adult Echocardiography. It is designed to provide students with the basic knowledge and principles necessary to perform echocardiographic procedures in the clinical setting. The program is hospital based. The essentials and guidelines for accreditation are available to students to read and may be found in the office of the Education Coordinator.

WVU Hospitals awards a certificate to each student who satisfactorily completes all courses of study and fulfills all clinical requirements of the program. Upon graduation, students are eligible to sit for registry exams offered by the American Registry of Diagnostic Medical Sonographers and the Cardiovascular Credentialing International. Applicants to the program must hold an Associate degree or higher.

Students enrolled in the program are regarded as mature, responsible individuals seeking education in the field of ultrasound. They are not considered employees of the hospital or students of West Virginia University.

The following information has been prepared to inform the students of both policies and procedures of the ultrasound facilities as well as the didactic and clinical requirements expected of them during this educational endeavor.

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Mission Statement

The Echocardiography program at West Virginia University Hospitals serves to facilitate the growth and development of the student in cardiac sonographic imaging. Through continued technological advancement and a strong commitment to education, West Virginia University Hospitals serves as the foundation on which students can cultivate and expand their knowledge of the technical, professional, and philosophical aspects of medical imaging and the healthcare environment. The program strives to provide our students with an educational environment that is conducive to attaining positive learning outcomes and is comprehensive in providing clinical experience and patient care opportunities.

Goals

1. To prepare competent entry-level Echocardiographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.
2. To develop students with effective communication skills.
3. To instruct students in the use of critical thinking and problem solving skills.
4. To encourage students to demonstrate professionalism.



Imaging Science Education Programs
Echocardiography

West Virginia University Hospitals
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Morgantown, WV 26506

Policy Change

The administration of the West Virginia University Hospital's and the Faculty of the West Virginia University Hospital's Imaging Science Education Programs reserve the right to change any of the stated policies as necessary and/or when advisable for improvement of or to meet new standards within the program.

Echocardiography Admissions Policy

West Virginia University Hospitals and those responsible for the administration of the Imaging Science Education Programs consider each applicant without regards to race, religion, color, national origin, ancestry, age, sex, sexual orientation, gender identity, disability, veteran status or any other status protected by applicable law. The program coordinator reserves the right to limit enrollment based upon the quality of the applicant pool and current employment market conditions. Admission to the Echocardiography Program is governed in accordance with the following minimum admission requirements.

Requirements for Admission Consideration

All of the following criteria are required for admission consideration and documentation must be received on or before **February 1st** of the year in which the student is applying for admission.

1. Applicant **must** review the Essential Performance Standards form located on the program's web-site <http://wvumedicine.org/radtech/echocardiography/>
2. Applicant **must** possess, at minimum, an Associate's degree (*or pending graduate*) of a 2-year postsecondary, Allied Health education program that is patient care related. Allied Health occupations include, but are not limited to Radiologic Technology, Respiratory Therapy, Occupational Therapy, Physical Therapy, Registered Nurse, and Licensed Practical Nurse.
3. Applicant **must** submit the following by the **February 1st** deadline to be considered for the program starting in July:
 1. Program Application
 2. Three Personal Reference Forms
 3. Official high school grades or G.E.D. scores
 4. Official transcripts of all post-secondary education
 5. American College Test (ACT) scores or Scholastic Aptitude Test scores (SAT)
 - i. Minimum required composite score: ACT ≥ 19 , or SAT ≥ 900 .
 - ii. Requirement may be waived for applicants possessing a baccalaureate degree.
 - iii. ACT School Code - 4549 SAT School code - 3863

Transfer, Advanced Placement and Part-Time Student Policy

The Echocardiography program does not admit student sonographers on a transfer basis. The program has a structured curriculum design that does not provide enough time or flexibility to accommodate a transferring student. The West Virginia University Hospitals, Echocardiography Program does not provide for any advanced placement. Due to the nature of the educational process relative to the clinical education requirements and competencies, the program does not provide for student attendance on a part time basis. Part time hours would

disrupt the coordination of the student's clinical education relative to his or her didactic education.

Academic Evaluation

Program officials utilize an established, objective screening mechanism to assign academic points to a candidate based on their current level of academic achievement. The following categories are evaluated in assigning academic points:

1. American College Test (ACT) scores or Scholastic Aptitude Test scores.
2. Applicant must document completed college level course work in the following:
 - a. Mathematics (Statistics, Calculus, Trigonometry or Algebra accepted)
 - b. General physics (Radiology physics is accepted)
 - c. Communication skills (English, Speech, or Composition accepted)
 - d. Human Anatomy and Physiology
 - e. Patient Care (clinical experience and/or current job experience accepted)
3. College level education grades to include:
 - a. Cumulative GPA/Weighted Average
 - b. Mathematics (cumulative)
 - c. Physics
 - d. Communications
 - e. Human Anatomy & Physiology (cumulative)
4. College / University Credit (based on GPA relative to number of hours completed)
5. College / University degree (BA, BS, MA, etc.)
6. Healthcare Experience

Interview Evaluation

Interviews are granted to the top candidates each year; however, the Education Coordinator reserves the right to limit or expand this number based on the quality of the applicant pool. Applicants not receiving an interview will be notified by mail. Interviews will be conducted in March or April of each year and candidates will be notified of their admission status no later than the end of April of each year.

Interviews are conducted by an admission's committee consisting of a least three members selected by the education coordinator and may include faculty members, department managers and /or clinical staff. Using a standardized form, total interview scores from each committee member will be calculated and averaged for each candidate.

Overall Evaluation

The Admission committee will review the total academic and interview scores and finalize the assessment by assigning up to 5 additional points to the candidates score based on programmatic fit and the candidates projected ability to be successful in the program.

Selection

The Education Coordinator will rank the candidates in descending order and will extend offers to top candidates having the highest overall scores (available seats in the program, vary year to year with an average of 4 students). The next 3 candidates will be waitlisted in the event one or more of the top candidates do not accept the position. Waitlisted positions expire once a class is filled and do not carry over to the next admission year.

The candidates selected for admission will receive:

- a. Acceptance letter
- b. Access information for the student handbook
- c. Statement of Intent To Enroll (to be signed and returned)
- d. Essential Performance Standards Form
- e. Invoice for Admission Fee

All other applicants interviewed will receive a written verification of their non-admission or waitlisted status.

Acceptance

The selected applicants will be given approximately 10-15 business days to respond to the offer of admission by completing the following prior to the established deadline:

1. Read the Student Handbook
2. Sign and return the Statement of Intent to Enroll form
3. Sign and return the Essential Performance Standards form
4. Submit a \$50.00 check to WVUH for the admissions fee

If an applicant fails to respond to the offer of admission by the established deadline, the program coordinator will consider the offer as void, and will proceed by offering the position to a wait-listed applicant.

Enrollment

Enrollment is contingent upon the student satisfactorily completing the following screening and assessment procedures within the guidelines specified by West Virginia University Hospitals (WVUH). These screenings will be conducted during the orientation time frame or at a time

specified by program coordinator. Students will be provided with additional information regarding these procedures prior to the program start date.

Students will be required to:

- (1) Complete a health assessment and a vaccination record review conducted by the Employee Health department.
- (2) Complete the criminal background investigation process. (See WVUH Policy V.036)
- (3) Complete the drug screening / testing process. (See WVUH Policy V.035)

Recruitment

As part of the requirements of the Essentials and Guidelines for an Accredited Program of Echocardiography, adequate announcement and advertising that accurately reflects the program must be practiced. To comply with this, our program information is available on the WVUH Radiologic Technology Education Programs' website. We provide application packets upon request. Letters and advertising materials are sent out to many radiography programs in the state and surrounding areas.

Weighted Values for Applicant Admission Points

The following values will be assigned to the applicant's previous academic achievements and the personal interview. Points assigned to each candidate will be summated and utilized as criteria for admission consideration:

I. ACT/SAT scores

ACT Composite Score	SAT Score	Points Assigned
≥ 30	≥ 1350	4
≥ 26	≥ 1200	3
≥ 22	≥ 1040	2
≥ 18	≥ 899	1
< 18	< 899	0

II. College level coursework

Applicants are awarded academic credit points towards admission for each of the following course categories based on the following letter grade scale:

Course	Letter Grade	Points Assigned
College-level Mathematics (cumulative)	A	5
Physics	B	4
Communications	C	3
Anatomy & Physiology (cumulative)	< C	0

III. Radiography / College / University Credits

Points are awarded to applicants based on the applicant's average GPA (cumulative college/university plus radiography). Points are awarded based on the following scale:

Associate Degree		Baccalaureate Degree		Graduate Degree	
GPA	Points Assigned	GPA	Points Assigned	GPA	Points Assigned
≥ 3.59	3	≥ 3.59	6	≥ 3.59	9
≥ 2.99	2	≥ 2.99	5	≥ 2.99	8
≥ 1.99	1	≥ 1.99	4	≥ 1.99	7
< 1.99	0	< 1.99	0	< 1.99	0

IV. Healthcare Experience

Points are assigned to candidates that document healthcare related work experience not including any clinical education:

Category	Points Assigned
Health Related ≥ 3 years	3
Health Related ≥ 2 years	2
Health Related ≥ 1 year	1
No Health Related Experience	0

V. Personal Interview

Individual interviewer points in the following categories are summated and averaged to obtain an overall average interview score (see interview form). Points are assigned based on the range below:

Category	Points Assigned (see Interview form)
Appearance	1 – 5 points
Affability/Attentiveness	1 – 5 points
Emotional - Stability	1 – 5 points
Personality	1 – 5 points
Communication Skills	1 – 5 points
Comprehension	1 – 5 points
Knowledge of Profession	1 – 5 points
Initiative & Drive to succeed	1 – 5 points
Initiative towards Program Admission	1 – 5 points

VI. Programmatic / Institutional Fit

Points are awarded by the Admission committee relative to the candidates programmatic fit and projected ability to successfully complete the program.

Interview Score	Points Assigned (see Interview form)
> 40	5
> 35	3
< 35	0

Mandatory Orientation Policy

The West Virginia University Hospitals, Echocardiography Program requires that students attend the two day scheduled orientation.

In the event that the student would be unable to attend this orientation, the student's personal time will be deducted. The total time deducted from the personal time off is twelve hours (1.5 days) from the forty eight hours (6 days) given at the beginning of the program.

In addition, any student that was not present for the orientation will be provided the handouts and given a list of required items that will need to be completed on their own time. Required items that will need completed include but are not limited to as follows:

- (1) **Obtaining a Hospital Parking Pass**
- (2) **Galaxy card/security access**
- (3) **PICOM orientation and training**
- (4) **EPIC orientation and training**
- (5) **Any additional task assigned by education coordinator that was missed during orientation**

Education Coordinator

Date

Attendance Policy

A student's daily attendance is vitally important in order for them to maintain satisfactory didactic and clinical performance. Students that miss exceptional amounts of clinic time will find it difficult to acquire the exams needed to fulfill their clinical education requirements. Students need to realize that poor attendance during their education can have a negative effect on their future. Employers tend to be wary of student applicants that have a record of excessive absenteeism. It is natural to relate absenteeism with a poor work ethic and a lack of commitment to the profession.

Personal Time off (PTO)

Personal time off (PTO) may be utilized for unscheduled absence (illness, personal emergency, etc.) and scheduled absence (doctor appointments, etc.)

Students are given a total of six days or forty eight hours of Personal Time off (PTO) during the 12 months they are enrolled in the program. This time is to be used for both personal reasons and in the event of an illness. Any time taken in excess of these six days must be made up before July 1 of the graduating year.

Scheduled and Unscheduled Absences

1. It is the student's responsibility to notify both the Education Coordinator when calling to report absence for illness or other personal emergencies. Notification must be received by the Education Coordinator no later than 30 minutes prior to the beginning of the student's assigned shift. Failure to call in a timely manner will result in the student receiving an unexcused absence for that day.
2. In addition to calling to report an absence, students must document their absence by completing a Personal Leave Request form in Trajecsys.
3. Students that miss consecutive days due to an illness will be charged only one personal day off (8 hours PTO) for every three days of absence, providing the student has a valid medical excuse from a physician stating the amount of time the student should be excused. The provision does not apply to time missed due to illness or incapacitation related to elective procedures or surgeries. Please refer to Medical Leave of Absence policy regarding extended illnesses.
4. Students requesting time off for non-emergent reasons should pre-schedule allowed time off with program officials by the end of their shift at least one day prior to the requested time off. Students should also complete a Personal Leave Request form in Trajecsys with

the exact number of hours to be taken and marked with the appropriate designation (medical, military, funeral, personal, etc.) and inform the Education Coordinator as soon as the form has been submitted to ensure prompt review.

Interview day

Students are granted one allotted interview day and are required to submit a leave request form in Trajecsys by the end of their shift at least one day prior the interview date. The forms can be found under documents in Trajecsys and must be signed by a member of the interview committee and returned to the Education coordinator the next day immediately following the interview. If signed document is not returned, the absence is considered unexcused and deducted from allotted allowable time off.

Bereavement

Students will be given a maximum of three (3) days excused absence for deaths in their immediate family. Immediate family shall include: husband, wife, mother, father, brother, sister, mother-in-law, father-in-law, and grandparents. Exceptions to this policy may be granted only by the Education Coordinator.

Military Leave

West Virginia University Hospitals support the Military Services of the Government of the United States and provides the following provisions for students serving in the Military Reserves during their enrollment in the program.

Students serving in any branch of the U.S. Military Reserves are allotted 2 weeks (10 days) of leave per academic year to fulfill their required military commitment. Students that miss additional time (> 19 days) due to military service will be required to utilize personal leave or arrange acceptable time frame in which to make-up the time missed so that the program's clinical requirements can be fulfilled. Make-up time is subject to Education Coordinator's discretion and subsequent approval.

Students are responsible for all didactic and clinical course material presented during their absences related to military service.

In the event that a student is called-up to active military duty, the program will reserve a position for that student so they can re-enroll upon the completion of their active duty assignment.

Pregnancy

It is the policy of the West Virginia University Hospitals Echocardiography Education Program to follow the steps outlined below, and provide three options to our students in the event that pregnancy should occur during the twelve (12) month program.

1. Upon medical verification of her pregnant condition, disclosure of the said condition to program officials is the student's responsibility and is to be initiated voluntarily. Students have the right to refuse disclosure of medical information; however, in the event that a student chooses not to disclose information regarding pregnancy, the student is acknowledging that they are assuming all responsibility for their condition and the potential complications that may arise.
2. Upon notification by the student that a pregnant condition exists, the Education Coordinator will contact the Radiation Safety Officer to assess the student's likeliness of radiation exposure as well as the risks associated with radiation exposure to the fetus. Students working in ultrasound are not exposed to radiation producing equipment, however if the student or Radiation Safety Officer wishes a film badge will be issued to be worn at the level of the pelvis to monitor any possible fetal dose encountered while working in the Department of Radiology.
3. Upon medical verification that a pregnancy exists, and after consultation with the Radiation Safety Officer, the Education Coordinator will offer three options to the student.

Option # 1 – Choose Not to Disclose Information Regarding Pregnant Condition

By choosing this option, the student implies acknowledgement that she has chosen to disregard the recommendations made by the Radiation Safety Officer and the program. In addition, she is assuming responsibility for all potential risks and related complications. No policy or performance exceptions can or will be implemented should the student choose this option.

Option #2 - Leave of Absence during pregnancy. If the student so decides, she may elect to leave the Program under the following requirements:

- a. Upon accepting this option and leave the Program, she must notify the Education Coordinator immediately.
- b. The student shall re-enter at the beginning of the corresponding semester in which she left. (i.e., if the student left mid-way through the second semester she would be required to re-enter the program at the beginning of the second semester the following year).

- c. All didactic and clinical course work must be completed prior to graduation from the Program

Option # 3 - Remain in Program throughout pregnancy. If the student so decides, she may continue in the Program under the following requirements:

- a. The student shall imply all radiation safety practices as outlined by the Education Coordinator and the Radiation Safety Officer.
 - b. Upon request, an exposure monitoring device will be issued by the Radiation Safety Officer.
 - c. The student shall participate in all scheduled clinical rotation areas as assigned with no special provisions.
4. The Education Coordinator shall document the student's decision in regard to the three options described above.
 5. The student shall complete and sign a form acknowledging receipt of information and associated documentation in regard to the pregnancy. All documentation shall be entered into the student's permanent personal file.

Excessive Absenteeism

This policy serves to identify the procedure and criteria implemented when a student exceeds their allotted six days off for the twelve month period.

1. Excessive absenteeism will not be tolerated. If a student exhausts their six allotted days, they will be subjected to the following disciplinary action.
 - a. If the six allotted days are exhausted, the student will receive their first formal warning and documented counseling regarding their attendance.
 - b. If two additional days are missed (total eight days), the student will receive a second formal written warning regarding their position in the program and receive a five percent deduction from their final clinical grade for the semester (Semester 1-Applications of Echocardiography 1; Semester 2-Applications of Echocardiography 2).
 - c. If two more additional days are missed (total ten days), the student will receive a final formal written warning regarding their position in the program and an additional five percent deduction from their final clinical grade for the semester (Semester 1-Applications of Echocardiography 1; Semester 2-Applications of Echocardiography 2).

d. If the total amount of days exceeds 10, then the student will be dismissed from the program. Students will be evaluated on an individual basis as to the circumstances causing the absenteeism.

2. In the event that a student exceeds their allotted six days, their clinical education will be extended beyond graduation so that all clinical requirements can be satisfied. However, the clinical education process cannot be extended beyond June 30th of the graduating year. All absences over the allotted six days will be considered as unexcused absences and will result in documentation of “unsatisfactory attendance” on the final transcript.

3. In accordance with the Standards of an Accredited Educational Program in Radiologic Sciences, with regard to the maximum hours of clinical and didactic instruction, students will not be permitted to make-up their excessive missed time by extending their hours in clinic on a daily basis.

Unexcused absences

Unexcused absences are classified as the following:

1. Leaving the facility grounds without a Program official’s permission
2. Leaving your assigned clinical area without a Program Official or a staff sonographer’s permission
3. Failure to notify Program Director prior to your assigned shift of an unscheduled absence
4. Absences that occur as a result of disciplinary action (ex. suspension) or those in excess of the allowed six days.

In the event that a student incurs an unexcused absence, the Disciplinary Action policy will be implemented. It is mandatory for all students to make-up, after graduation, any time missed as a result of an unexcused absence so that all clinical requirements can be satisfied. As with the excessive absenteeism policy, the clinical education process cannot be extended beyond June 30th of the graduating year.

Tardiness

Students are required to be in their assigned clinical or didactic area and fully prepared to begin the daily assignments prior to or by their designated start time. Students should be aware that falsifying attendance records is grounds for immediate dismissal.

Tardiness is subject to the following guidelines and provisions:

1. Tardiness is considered as any arrival time that is more than 7 minutes past designated shift.
2. Tardiness beyond 30 minutes will result in student being charged 0.5 days (4 hours) of allowed time off.
3. Failure to notify program officials 1 hour beyond the designated time of arrival will result in official written warning.
4. Three days of tardiness will result in the loss of one full day of allowed absence, an oral warning will be issued.
5. Upon occurrence of three additional incidences of tardiness (total of six), a written warning shall be issued.
6. Upon the occurrence of nine total tardy incidences, a second written warning shall be issued and attendance will be marked as “unsatisfactory” on final grade transcript.
7. Upon the occurrence of 10 total tardy incidences, the student will be issued a 3rd formal warning which will result in dismissal from the program.
8. Excessive tardiness will not be tolerated. Continued abuse will result in disciplinary action and will result in documentation of “unsatisfactory attendance” on the final transcript.

Attendance Documentation Policy

The Trajecsys Report System

The Trajecsys Report System: The West Virginia University Hospitals, School of Diagnostic Medical Sonography Program implemented the use of the Trajecsys Report System. This system is an electronic based program that contains the student's competency forms, proficiency forms, evaluation forms, and time record reports to monitor attendance.

This system has replaced the traditional paper clinical handbook. With regards to students utilizing this system, there is a one-time fee of \$100.00 which is paid directly to Trajecsys. This fee is paid by doing the following.

The student will be required to access the following website:

<http://www.trajecsys.com/payments.htm>.

After accessing this website, each student will need to complete the online form and then click the "Buy Now" button. This will re-direct them to PayPal where the payment will be submitted.

Note: Students do NOT have to have a PayPal account to use this. When the director from Trajecsys receives notification of payment from PayPal, the director will update them in the Admin Panel/Payments.

All Trajecsys data is formatted into report form for both students and educational staff to view and utilize as needed.

Students are required to document their attendance by clocking in and out on the TRAJESYS system **on a hospital computer**. This system is an electronic based program that contains the student's competency forms, evaluation forms and attendance records to provide program officials with a method by which to regulate student attendance as they rotate through their various clinical and didactic assignments. A detailed description of the students' attendance is available at any time by logging into the TRAJESYS system. The attendance log documents month, day, and year. These Attendance forms are located in the Trajecsys Electronic site for each student. At graduation, a copy of the clock hours for each student is placed into the student's permanent file located in the Program Director's Office. No student will work, didactic or clinical combined, more than 40 hours a week.

1. Upon reporting to the Hospital for their assigned shift, students will clock-in on the TRAJESYS system. All student badging transactions must take place on a computer located within the respective WVUH HVI Department. **Clocking in or out on a personal computer or cell phone is not permitted.**

2. Upon leaving the Hospital after their assigned shift, students will clock-out on the TRAJESYS system. All student badging transactions must take place on a computer

located within the respective WVUH HVI Department. **Clocking in or out on a personal computer or cell phone is not permitted.**

Policy Enforcement:

Accurate evaluation and interpretation of student attendance can only be accomplished if students are methodical and precise in their clocking procedures. For this reason, the following guidelines have been established and will be strictly enforced.

1. Each student must clock-in and out with their individual username and password. Students are not permitted to clock in or out for each other. Students are issued ID usernames and Passwords for clocking procedures.
2. Students that fail to clock-in will be counted absent until they subsequently clock-in for that day. All time not accounted for (missed documentation) will be either deducted from the students PTO balance or replaced by compensatory time if available.
3. If a student consistently fails to properly utilize the time clock system clinical instructor points may be deducted. Once a student's clinic points (5 total) are exhausted, the Disciplinary Action policy may be implemented.

Outside Employment

Any outside employment by the student cannot interfere with the Program. Students are expected to be available for all didactic and clinical education as required by program guidelines. The program hours are Monday through Friday from 7:00 am until 3:30pm with the exception of the first two weeks of July, which include various orientation events with varying daylight hours.

Financial Aid

This program is not eligible for financial aid.

WVU Employee Tuition Reimbursement

Students in the Echocardiography Education Program may be eligible for WVU Medicine Employee Tuition Reimbursement program. Students must meet all policy eligibility requirements and should follow program guidelines for submissions. The Employee Tuition Reimbursement Policy is available on Connect>Policies and Protocols>WVUHS. To view eligibility requirements for tuition reimbursement and frequently asked questions, please visit HROneSource at HROneSource.org and click on the Benefits icon. Click the *Tuition Programs* link for additional information. If you have any questions regarding this information, please contact HROneSource at 833-599-2100 or submit a Service Request online at HROneSource.org.

Library and Student resources

WVU Medical Center library maintains reference books and periodicals for students to view. Students also have access to textbooks in the Echocardiography Lab and the Education Coordinator's office. A list of textbooks and reference materials can be found in the Coordinator's office. Students have the privilege of using any of this material for their studies. All reference material must be checked out and returned to the Coordinator after 7 days. **A lost book or reference must be replaced at the student's expense. The student will not receive their graduation materials until the debt is satisfied.**

Clinical Procedures & Supervision

Policy:

The WVUH Echocardiography Program will operate according to the standards of the Commission on Accreditation of Allied Health Programs. The Echocardiography program assumes the responsibility to provide each student with a volume and variety of cardiac ultrasound procedures, equipment, and personnel available for educational purposes. In compliance with the Commission on Accreditation of Allied Health Programs, the number of students assigned to each clinical instructor to staff sonographer will not exceed a one-to-one ratio.

Procedures:

Students must maintain a professional attitude, appropriate behavior, work ethic, uniforms and appearance at all times. This is a fundamental expectation of the Echocardiography profession, as well as the education program. Each student is expected to be at their clinical site in proper uniform and ready to scan at the time their clinical assignment begins.

Clinical Grade Standard (minimum):

Each student is required to achieve a minimum overall weighted clinical average of **86% B** at the end of each semester in order to successfully complete the clinical education component, no provisions are provided for repeating a clinical level. Each clinical education level must be completed before advancing to the subsequent semester; therefore, students who fail to achieve an **86% B** average at the end of each semester will be dismissed from the program. Students are counseled by the Clinical Education Coordinator regarding their clinical progress at mid-term, semester end, and/or as needed; however, it is the student's responsibility to maintain awareness of their clinical progress at all times.

Clinical Grading Scale:

The following grading scale will be utilized as an objective evaluation mechanism for representing the student's clinical grade and performance.

Percentage Grade	Letter Grade	Quality Points
100% - 93%	A	4.0
92% - 86%	B	3.0
85% - 78%	C	2.0
77% - 70%	D	1.0
< 70%	F	0.0

Sonographer Supervision:

The student will perform an imaging study with the assigned sonographer; both student and sonographer will scan the patient. The sonographer may not be present in the exam room for the entire length of the study, however, the sonographer will be immediately available to assist the student. The sonographer is ultimately responsible for the exam. Concerns regarding the exam will first be addressed through supervising sonographer, then clinical coordinator before addressing the student retrospectively.

1. At no time will a student (unqualified) sonographer perform an examination in lieu of a staff sonographer.
2. A staff sonographer will be responsible for any and all actions of a student under their direct and indirect supervision.
3. As the student progresses through the program and documents competency for a particular exam, the clinical instruction will become more indirect to allow the student time to perfect their scanning skills and gain confidence. A qualified staff sonographer will always perform the following:
 - Review exam request in relation to the student's level of clinical competence.
 - Evaluate patient condition in relation to the student's level of clinical competence.
 - Be present during the performance of the examination to offer scanning techniques and tips to assist the student sonographer if needed.
 - Review and approve all images.
 - Be present during case presentation to diagnosing/interpreting physician.

Clinical Instructor:

A Clinical Instructor is defined as a credentialed sonographer that provides the appropriate clinical supervision and is responsible for completing the student's clinical evaluation. An appropriately credentialed Clinical Instructor may perform competency exams with students. The Education Coordinator is responsible for clinical assignments, rotations and attendance.

Clinical Instructor responsibilities include, but are not limited to, providing demonstration of department functions, the imaging process, scanning techniques, instrumentation, normal anatomy, and pathology. Each student will be assigned to a Clinical Instructor for rotation deemed by the Education Coordinator. A Clinical Instructor will observe and practice the following:

- Instruct and assist each student in the accomplishment of required sonographic procedures.
- Support educational program mission and goals.
- Provide feedback on student's clinical performance in order to develop

student competence via evaluations and verbal communication.

- Participate during Clinical Instructor meetings to discuss improvements of the education program in an effort to enhance student's educational experience.
- Perform in a manner representative of the Profession and the Institution.

Communication Channel:

Trajecsys is accessible to the staff sonographer. Documented competency examinations, student schedules, and evaluations are located within this electronic system. It is the student's responsibility to comment on each evaluation to verify they have reviewed it.

Scanning Practice:

Scanning practice may only occur during program hours and when appropriate clinical supervision is available.

Clinical Standards

The clinical grade each semester is based upon the completion of clinical logs in Trajecsys, and the average percentage grade of completed clinical competency examinations, clinical performance evaluations, and mid-term/final instructor evaluations.

Clinical competencies and evaluations must be performed on actual patients. Clinical competencies are completed by the supervising sonographer in Trajecsys with the scores of 0-Unsatisfactory, 1-Satisfactory and 2-Competent in the level of skills. The value 0-Unsatisfactory yields a 60%, a 1-Satisfactory yields an 86% and a 2-Competent in the level of skills yields a 100% for the skill. Failure to complete the minimum number of competencies results in a zero for the exam(s) not completed.

Performance evaluations and mid-term/final evaluations are scored by Unsatisfactory (0%), Needs Improvement (73%), Average (86%), Above Average (92%) and Superior (100%).

No provisions are provided for repeating a clinical level. Each clinical education level must be completed before advancing to the subsequent semester; therefore, students who fail to achieve an **86% B** average at the end of each semester will be dismissed from the program.

A syllabus outlining the semester clinical grading will be given at the beginning of each semester. Provisional clinical competencies and evaluations for each semester is as follows:

- Semester 1 Competencies: Apical views, Bubble study, contrast, Parasternal Views, Subcostal Views, Suprasternal Views
- Semester 1 Evaluations: July & August Student-completed weekly, Clinical Performance Evaluation-completed weekly, Mid-term Clinical Evaluation, Final Clinical Evaluation
- Semester 2 Competencies: Cardiomyopathy, function study, pericardial effusion check, post-op study (any procedure), Prosthetic valve, Pulmonary Hypertension, Valvular Disease, routine protocol-completed at least 10 times with appropriate assistance, independently performed complete TTE-completed at least 5 times without assistance
- Semester 2 Evaluations: Clinical Performance Evaluation-completed weekly, Mid-term Clinical Evaluation, Final Clinical Evaluation

Grading / Quality Points Scale

The following grading/quality points scale will be utilized as an objective evaluation mechanism comprising of percentage values and letter grades which serve to represent the student's didactic

course, clinical course and semester performance. Quality points are utilized in calculating the student's grade point average (GPA).

<u>Percentage Grade</u>	<u>Letter Grade</u>	<u>Quality Points</u>
100% - 93%	A	4.0
92% - 86%	B	3.0
85% - 78%	C	2.0
77% - 70%	D	1.0
< 70%	F	0.0

Clinical Education Make-Up

This policy serves to identify the procedure and criteria for making up clinical education for if absences in excess of the allotted 6 personal day occur. Absences in excess of the 6 days must be made up by the student in order to complete the clinical education component of their education and receive the recommendation of the Education Coordinator to sit for the registry in diagnostic medical sonography. See the attendance policy for details.

The following guidelines will be utilized by the student to re-establish their good standing in the clinical education component of their education.

1. The student's clinical education will be extended beyond graduation to account for the number of days or hours in excess of the allotted 6 personal leave days, not to exceed 5 days.
2. In all cases, unexcused absences must be made up after graduation and cannot extend beyond 5 days.

These guidelines will be used by the education program to provide the student with a mechanism to complete their clinical education when the student's attendance has been affected by adverse circumstances (ex: extended illness). Chronic attendance problems will be governed by the Attendance & Disciplinary Action policies.

Instructors

Jocelyn Smrdel, RDCS, AE, PE

Education Program Coordinator; Didactic Instructor

Greg Harvey, RCS, RVS

Lead CV Sonographer; Clinical Instructor

Stephanie Berkheimer, RCS

CV Sonographer; Clinical Instructor

Brian Cardenas, RDCS, RVT

CV Sonographer; Clinical Instructor

Barry Fanning, RDCS

CV Sonographer; Clinical Instructor

Katie Colley, RDCS, RVT

CV Sonographer; Clinical Instructor

Tonya Matthis, RCS

CV Sonographer; Clinical Instructor

Dawn Smith, RCS

CV Sonographer; Clinical Instructor

Jennifer Smith, RDCS

CV Sonographer; Clinical Instructor

Warren Smith, RDCS

CV Sonographer; Clinical Instructor

Clinical Instructor Evaluation

The Staff Clinical Instructor Evaluation provides program officials with a mechanism for the evaluation of quality of the clinical education provided by Staff Clinical Instructors. These evaluations are completed by the Echocardiography students at the mid-term and conclusion of each semester (4 total). The objective of this evaluation process is to identify the strengths and weaknesses of each clinical instructor and to identify potential student / technologist issues.

The evaluation process will be conducted as follows:

A. During the student orientation week, the components of the Staff Clinical Instructor Evaluation form will be explained to the student. After the completion of each semester, each student will be required to complete an evaluation of each Cardiac Sonographers they have rotated with that semester. The student will be instructed to base their evaluation rating on the technologist instruction performance only. The importance of remaining objective in their evaluation criteria will be stressed.

B. The student will rate the instructor from a scale of 1 to 5 in each category on the evaluation form.

Excellent =5, Good = 4, Satisfactory = 3, Fair = 2, Poor = 1

C. Each student will submit individual clinical instructor evaluations to the Education Coordinator at the end of each semester.

D. The average score produced by each student will be averaged together to produce an overall rating.

E. Evaluations will be retained by the Education Coordinator. At the end of each semester, the Education Coordinator will distribute evaluation results to the Manager of Cardiovascular Services and Director of Cardiac Imaging for use in the annual performance appraisal of each staff technologist relative to their duties as staff clinical instructors.

F. In the event that a technologist receives an evaluation that falls into the “needs improvement or unsatisfactory” category, the Education Coordinator will discuss the evaluation with the student evaluator. If the Clinical Supervisor deems that the evaluation is accurate and the performance of the technologist is detrimental to the clinical education process, the evaluation will be discussed with the Manager of Cardiovascular Services and Director of Cardiac Imaging. If deemed necessary, the technologist will be counseled regarding their clinical instruction performance.

G. In order to maintain the integrity of the evaluation and to allow students to complete the evaluation without fear of retribution, the student’s identification will be kept extremely confidential. At no time will the staff clinical instructor be provided with information regarding



Imaging Science Education Programs
Echocardiography

West Virginia University Hospitals
Medical Center Drive
Morgantown, WV 26506

the identity of the student evaluator. Staff clinical instructors who wish to challenge a student's evaluation may do so by submitting a formal complaint in writing to the Program Director. The Program Director, Manager of Cardiovascular Services and Director of Cardiac Imaging Manager will investigate the complaint and provide feedback to the staff clinical instructor relative to the validity of the student's evaluation.

Didactic Standards

Didactic section shall be graded as follows:

A syllabus outlining the semester didactic assessments will be given at the beginning of each semester. The Education Coordinator has the right to adjust the assessments to best serve the students with regard to material content and time management.

Exams & Quizzes Accounts for an average of 90% of your cumulative program grade

Presentations/Other Accounts for an average of 10% of your cumulative program grade

Students must complete a mandatory Didactic Course Evaluation on Trajecsys at the conclusion of each course.

Grading / Quality Points Scale

The following grading/quality points scale will be utilized as an objective evaluation mechanism comprising of percentage values and letter grades which serve to represent the student's didactic course, clinical course and semester performance. Quality points are utilized in calculating the student's grade point average (GPA).

<u>Percentage Grade</u>	<u>Letter Grade</u>	<u>Quality Points</u>
100% - 93%	A	4.0
92% - 86%	B	3.0
85% - 78%	C	2.0
77% - 70%	D	1.0
< 70%	F	0.0

Course Lecture Session Make-Up

The program officials and instructors will abide by the following procedure for permitting students to make-up course work missed as a result of being absent from a scheduled lecture session. This policy serves to eliminate, as much as possible, any potential advantage that a student may achieve by being absent from a scheduled lecture session and thereby obtaining a greater amount of study and/or preparation time, for the scheduled activities of the class, than those students in attendance.

1. The student is solely responsible for the lecture material covered and for making up any examinations, quizzes, homework assignments, etc. which occurred during their absence from the lecture session.
2. All examinations and/or quizzes must be made up on the student's first regular scheduled day of attendance (Monday thru Friday) following their absence from the lecture session.
3. Assignments will have strict deadlines and will be due by 7 am the day of class. Failure to meet the deadline may result in a zero for the assignment.

The student must follow the following procedure:

- a. Contact the course instructor by 7 am on the day of your return and inform the instructor that you are presenting yourself to make-up the missed examination and/or quiz.
 - b. In the event that the course instructor is not available, contact the program director or program clinical coordinator immediately and inform him/her to this affect.
 - c. Instructors may submit the examination and/or quiz to a program official who will proctor the make-up session for the instructor. Instructors who anticipate that they will not be available for the make-up session must arrange in advance for the program director and/or clinical instructor to proctor the session.
4. Failure of the student to follow the aforementioned make-up guidelines imposes a mandatory requirement upon the instructor to record a percentage grade of zero for the examination and/or quiz.

Didactic Course Evaluation

At the end of each course throughout the semesters, students are required to complete Instructor Evaluations for all didactic courses. The results on each instructor are compiled and averaged for the academic year.

Students rate their instructors on a 5-point scale:

Excellent = 5, Good = 4, Satisfactory = 3, Fair = 2, Poor = 1

The objective of this evaluation process is to identify the strengths and weaknesses, if any, of each didactic course and instructor.

Total Course Clock Hours

<u>Course Number</u>	<u>Course Title</u>	<u>Clock Hrs.</u>
ECHO 100	Ultrasound Physics and Instrumentation	60
ECHO 110	ARDMS SPI Board Review	15
ECHO 300	Introduction to Echocardiography	108
ECHO 310	Echocardiography 1	45
ECHO 320	Echocardiography Applications 1	740
ECHO 330	Echocardiography 2	60
ECHO 340	Echocardiography Applications 2	774
ECHO 350	Case Review	20
ECHO 360	Introduction to Congenital Heart Disease	42
ECHO 370	ARDMS Board Review	16
<hr/>		
	Total Didactic	366
	Total Clinical	1514
	Total Program Hours	1880

Total Course Clock Hours
Semester 1

<u>Course Number</u>	<u>Course Title</u>	<u>Clock Hrs.</u>
ECHO 100	Ultrasound Physics and Instrumentation	60
ECHO 110	ARDMS SPI Board Review	15
ECHO 300	Introduction to Echocardiography	108
ECHO 310	Echocardiography 1	45
ECHO 320	Echocardiography Applications 1	740
<hr/>		
	Total Didactic	228
	Total Clinical	740
	Total Semester 1 Hours	968
<hr/>		

Total Holiday Hours (excluded from totals above) 40
4th of July
Labor Day
Thanksgiving
Friday after Thanksgiving

Total Course Clock Hours
Semester 2

<u>Course Number</u>	<u>Course Title</u>	<u>Clock Hrs.</u>
ECHO 330	Echocardiography 2	60
ECHO 340	Echocardiography Applications 2	774
ECHO 350	Case Review	20
ECHO 360	Introduction to Congenital Heart Disease	42
ECHO 370	ARDMS Board Review	16
<hr/>		
	Total Didactic	138
	Total Clinical	774
	Total Semester 2 Hours	912
<hr/>		
	Total Holiday Hours (excluded from totals above) Memorial Day	8

Course Descriptions

ECHO 100

Ultrasound Physics and Instrumentation

60 clock hours (Semester 1)

A study of the physics principles and instrumentation knowledge, skills and abilities essential to sonography students. The concepts essential to diagnostic ultrasound imaging are correlated to the operating principles of ultrasound equipment.

ECHO 110

ARDMS SPI Board Review

15 clock hours (Semester 1)

This course will review ultrasound physics and instrumentation as well as testing strategies for a board examination.

ECHO 300

Introduction to Echocardiography

108 clock hours (Semester 1)

Basic echocardiography skills are introduced in this course to prepare the student for the clinical, patient setting. The anatomy and physiology of the heart are reviewed. Echocardiograms of normal cardiac anatomy, scanning techniques, as well as positioning unique to echocardiography are presented. Students also participate in STEPS lab (simulation scanning) as well as self-scanning prior to imaging a patient in the clinical setting.

ECHO 310

Echocardiography 1

45 clock hours (Semester 1)

This course is for students specializing in Echocardiography. Abnormal cardiac anatomy and physiology will be studied. M-mode, two-dimensional, color flow Doppler, pulsed wave Doppler and continuous wave Doppler will be studied in correlation with echocardiographic findings.

ECHO 320

Echocardiography Applications 1

740 clock hours (Semester 1)

This course is designed to offer the student a first hands-on clinical experience. In the clinical setting the emphasis is placed on familiarizing the student with ultrasound equipment and controls, transducer position relative to the anatomy to be scanned, scanning techniques, protocols and patient care procedures. This clinical course enables students to scan patients to develop essential skills to Echocardiography.

ECHO 330

Echocardiography 2

60 clock hours (Semester 2)

This course is to be taken after successful completion of Semester 1 courses as outlined by the Echocardiography Handbook; concurrently with ECHO 340. This course will outline additional types of pathology and disease processes that potentially effect the heart. Advanced techniques, procedures and structural heart interventions will be covered. Echocardiographic findings associated with each lesion as well as exam specific techniques will be discussed.

ECHO 340

Echocardiography Applications 2

774 clock hours (Semester 2)

This course is to be taken after successful completion of Semester 1 courses as outlined by the Echocardiography Handbook; concurrently with ECHO 330. This course is hands-on clinical training aimed to progressively gain experience to advance the student's skills to independently perform a complete echocardiogram. This clinical rotation will also include focused time paired with the Sonographer staffing the procedures, cardiac catheterizations, stress echocardiograms and transesophageal echocardiograms. This course also allocates a minimum of two weeks observing pediatric echocardiograms in both the inpatient and outpatient settings.

ECHO 350

Case Review

20 clock hours (Semester 2)

This course consists of reviewing interesting echocardiograms that the students have encountered during their clinical rotation. While reviewing these cases, the instructor will aid the students in critiquing by evaluating the studies in regards to optimization and ultrasound physics principles. The student will select one of their most interesting cases to present to the class.

ECHO 360

Introduction to Congenital Heart Disease

42 clock hours (Semester 2)

This course will provide a brief overview of common congenital heart defects, complex heart disease, and surgical and palliative procedures. This course will discuss the echocardiographic assessment of patient's with congenital heart disease. In order to compliment this didactic portion, students will rotate through the WVU Children's Pediatric Echocardiography Lab in both inpatient and outpatient settings for a minimum of two weeks (subject to staffing availability).

ECHO 370

ARDMS Board Review

16 clock hours (Semester 2)

This final course will serve as a review of the Echocardiography program curriculum, as well as discuss test taking strategies in order to prepare for the ARDMS Adult Echocardiography specialty exam.

Sample Course Schedule 2020-2021

This program is a full-time, Monday through Friday 7am-3:30pm program. A student will attend didactic courses as per their tentative schedule, and any other time between 7am-3:30pm will be spent in clinical rotation. The Education Coordinator reserves the right to adapt and make changes the schedule throughout the year for any reason.

Semester 1

Mandatory Orientation Week of June 29	TBD
Introduction to Echocardiography July 1-July 31 *off-July 3	MWF 7am-9am; TR 12pm-3:30pm
Ultrasound Physics and Instrumentation August 3- October 16 *off-Sept. 7	MW 3 hours a day; TBD
Echocardiography 1 September 20-December 18	TR 2 hours a day; TBD
ARDMS SPI Board Review October 19-October 30	MW 3 hours a day; TBD
Echocardiography Applications 1 July 1-December 18	All hours between 7am-3:30pm when student is not in didactic

Winter Break- December 19th- January 3rd

Semester 2

Echocardiography 2 January 4-March 12	MWF 7am-9am
Case Review May 3-May 12	MWF 7am-11 am
Introduction to Congenital Heart Disease March 15-April 30	MWF 7am-9am
ARDMS Board Review May 14-May June 2 *off-May 24	MWF 7am-9am
Echocardiography Applications 2 January 4- end of program	All hours between 7am-3:30pm when student is not in didactic

Textbook Ordering and Purchasing Policy

Textbooks are selected based on recommendations from the Education Coordinator. The following sources are utilized in textbook evaluation and selection.

Curriculum Guide of Sonography Programs
Publisher Advertisements
Educational Seminars

All textbooks listed are mandatory.

Please contact Education Coordinator for guidance on purchasing.

Required Textbooks

- 1) Understanding Ultrasound Physics
Sidney K. Edelman; 4th edition
- 2) Echocardiography..from a Sonographer's Perspective
Susan King DeWitt; The Notebook 7

Access or Release of Student Records Policy

The Accreditation Standards for Diagnostic Medical Sonography Education released by the Joint Review Committee on Educational Programs in Diagnostic Medical Sonography requires that records be maintained permanently for all didactic and related courses attempted and/or completed by all students. The student's permanent record file shall contain the following:

1. Admission Documents: application, weighted values calculation sheet, signed acceptance letter, essential performance standards
2. Transcripts and associated records
3. Physical examination reports
4. Counseling records
5. Transcripts of didactic, laboratory and clinical achievement in diagnostic medical sonography
6. Records of attendance, clinical rotation and grades for all courses in diagnostic medical sonography
7. Documented evidence of student clinical competency
8. Copy of certificate from ARRT (R) certification
9. Copy of CPR certification card
10. Copy of Associate's degree

Our program is re-evaluated and re-accredited every seven years. A site-visit team assigned by the Joint Review Committee will re-evaluate the program at the end of the seven year accreditation period. The site visit team will request access to student records to assure that each student's records have been properly maintained. Due to the Family Education Rights and Privacy Act of 1974 also known as the Buckley Amendment, it is necessary that we obtain prior authorization from the student to allow access to the student's personal records. Your signature on the attached Authorization for Access or Release to Student Record Information will provide our program with the aforementioned authorization.

The following provisions will be followed to assure the students privacy:

1. A record of disclosure will be maintained and kept with the educational records of the student whose personally identifiable information was released.
2. This record must identify the parties who obtained the information and the reasons why these parties needed the information.
3. In addition, the party to whom the information was disclosed must not disclose the information to any other party without prior written consent of the student or his or her parents. The information taken from the records may be used by the organization only for the purpose for which the disclosure was made.
4. If the organization does release personally identifiable information for other purposes, it must also maintain a complete record of disclosures.

Educational Records Release Form**Student/Graduate:** _____Institution, Program or Individual to which records are to be sent:

Address: _____

City, State, Zip: _____

Educational records to be sent: (WVUH can only release **WVUH transcripts** to outside agencies)

1. _____
2. _____
3. _____
4. _____
5. _____

“In accordance with the Family Education Rights and Privacy Act of 1974, my signature below authorizes West Virginia University Hospitals Radiologic Technology Education Programs to release the aforementioned “Educational Records” to the institution(s) and/or individual(s) indicated above.

Student Signature: _____ Date: _____

Program Director: _____ Date Sent: _____

Graduation Requirements

- Achieve necessary requirements as outlined by the Academic and Clinical Standards polices. This includes all didactic and clinical grades as well as completion of clinical competency exams and proficiencies.
- Achieve proficient use of sonographic imaging equipment and demonstrate knowledge of ultrasound instrumentation, including but not limited to acoustic physics, Two-dimensional imaging, Doppler ultrasound, and other medical imaging principles.
- Maintain satisfactory attendance to all classes and clinical rotations.
- Use oral and written medical communication.
- Provide quality patient care.
- Recognize emergency patient conditions and initiate first aid and/or basic life support procedures.
- Demonstrate knowledge of human physiology, pathology, pathophysiology, and systemic and sectional anatomy.
- Integrate patient history and physical findings to determine appropriate area(s) of interest for obtaining a diagnostic examination.
- Demonstrate knowledge and proficiency in optimal recording and analysis of ultrasound data.
- Demonstrate knowledge and understanding of the interactions of sound and tissue.
- Demonstrate current knowledge related to bio-effects of ultrasound imaging.
- Exercise professional judgment and discretion in obtaining diagnostic information and correlating findings with physicians.
- Exercise professional judgment and discretion in communication with patients, co-workers, and the public concerning the field of ultrasound.
- Demonstrate knowledge and understanding of related imaging, laboratory, and testing procedures and how they contribute to the clinical diagnosis of disease.

- Identify sonographic representation of normal and abnormal anatomy.
- Apply optimal scanning techniques and imaging for specific areas of interest.
- Actively appreciate the need for continuing education.
- Develop a cooperative teamwork approach with other allied health professionals.

Program Effectiveness / Outcome Assessment Policy

The Imaging Science Education Program in Echocardiography evaluates programmatic effectiveness and performance by projecting and measuring outcomes relative to each academic year. These outcomes serve to provide assurance of successful achievement of the Program's mission and goals. Programmatic goals are developed by evaluating past performance and establishing benchmarks on which to evaluate current performance. In the event a programmatic goal is not met, action will be taken in an attempt to facilitate performance improvement. The basis for these measurement procedures is derived from the Commission as provided by the JRC-DMS. The data collected is presented in the Program Effectiveness / Outcome Assessment Report which is compiled each year.

Quantitative Outcomes:

1. Student Retention / Attrition Rate

Description

Student retention is calculated as the percentage of students who have remained enrolled over the past eighteen month time frame. Attrition is calculated as the percentage of students who resign, withdraw, or are dismissed over the past program length.

Programmatic Goal

Retention = $\geq 80\%$

Attrition = $\leq 20\%$

Data Collection Mechanism

Current enrollment numbers

2. Credentialing Exam (ARDMS) Pass rate

Description

Credentialing Exam pass rate is calculated as the percentage of students each academic year who successfully complete (75% scaled score or greater) the national certifying exam administered by the American Registry of Diagnostic Medical Sonography. The assessment is separated into two categories: 1st attempt pass rates and cumulative pass rate. Cumulative pass rates take into account the total average from 1st and 2nd attempts of a graduating class. The Program also evaluates student performance in each individual section compared to the national averages.

Programmatic Goal

ARDMS Exam Pass rate (1st attempt) $\geq 85\%$

ARDMS Exam Pass rate (cumulative) $\geq 100\%$

Individual Section Scores \geq National average / section

Data Collection Mechanism

Official ARDMS Exam report

3. Employment rate (Job placement rate)

Description

Employment rate is calculated as the percentage of graduating students who obtain employment in diagnostic medical sonography within six months of graduation. The calculation includes all graduates who are seeking employment as their primary endeavor. Students who electively pursue additional education and are not seeking initial employment are not included.

Programmatic Goal

Employment rate $\geq 75\%$

Data Collection Mechanism

Exit Survey

Qualitative Outcomes:

1. Graduate Satisfaction

Description

Graduate satisfaction is measured as the cumulative results of the five principal questions on the Exit Survey, which reflects how the student feels about the quality of education received at WVUH. Graduates rate the program on a 5-point scale (Excellent = 5, Good = 4, Satisfactory = 3, Fair = 2, Poor = 1).

Programmatic Goal

Graduate Satisfaction = Graduates rate program as “Good” (3.0) or higher (cumulative) Return Rate = 50%
Data

Collection Mechanism

Exit Survey

2. Employer Satisfaction

Description

Employer Satisfaction is calculated as the cumulative results of the fifteen performance question on the employer questionnaire component of the Alumni survey. Responses on all returned surveys are summated and averaged. Employers rate the graduates on the following 4-point scale: (1 = excellent, 2 = satisfactory, 3 = needs improvement, 4 = unsatisfactory)

Note: Scale changed in July 2000 to the following: (5 = Excellent, 4 = Above average, 3 = Satisfactory, 2 = Needs improvement, 1 = Unsatisfactory)

Programmatic Goal

Employer Satisfaction ≤ 2.0 (prior to July 2000)

Employer Satisfaction ≥ 3.0 (after July 2000)

Return Rate of $\geq 50\%$

Data Collection Mechanism

Alumni Survey (Employer Questionnaire)

3. Didactic Instructor Performance

Description

At the end of each semester, students are required to complete Instructor Evaluations for all didactic courses. The results on each instructor are compiled and averaged for the academic year. Students rate their instructors on a 5-point scale (Excellent = 5, Good = 4, Satisfactory = 3, Fair = 2, Poor = 1).

Programmatic Goal

Instructor Evaluations = ≥ 3.5 per instructor / year

Data Collection Mechanism

Didactic Instructor Evaluations

4. Clinical Instructor Performance

Description

At the end of each semester, students are required to complete Instructor Evaluations for all clinical instructors they have rotated with. The results on each instructor are compiled and averaged for the academic year. Students rate their instructors on a 5-point scale (Excellent = 5, Good = 4, Satisfactory = 3, Fair = 2, Poor = 1).

Programmatic Goal

Instructor Evaluations = > 3.0 per instructor/year

Data Collection Mechanism

Clinical Instructor Evaluations

Actions for Unmet Criteria:

The aforementioned outcomes provide program officials with a mechanism for evaluating the overall effectiveness of the program. Criteria that is met or satisfied can provide assurance that the mission and goals of the program are being achieved and maintained. In the event that criteria is unmet, program officials will take the following steps to assess the results and implement a performance improvement plan.

Step #1

Review findings / outcomes for accuracy and relevancy.

Step #2

Identify or rule out obvious rational explaining reason for unmet criteria.

Step #3

Identify individual reasons for unmet criteria (academic, clinical, programmatic, or personal).

Step #4

Contrast and compare data with previous outcomes to identify potential trends.

Step #5

Use data to identify if a causal relationship between unmet criteria and programmatic attributes exists.

Step #6

Develop improvement plan that attempts to address and correct the casual elements of the unmet criteria.

Step #7

Follow-up: Compare with subsequent year's performance to identify potential improvement.