DIAGNOSTIC MEDICAL SONOGRAPHY

2025-2027

Temple College is committed to nondiscrimination practices based on race, gender, gender identity and expression, disability, age, religion, national origin, genetic information, or veteran status. Our commitment is to provide equal opportunities as required by Title VI of the Civil Rights Act of 1964 and subsequent amendments, Section 504 of the Rehabilitation Act of 1973, Title IX of the Educational Amendments Act of 1972, the Age Discrimination in Employment Act of 1967 and subsequent amendments, the Vietnam Era Veterans Assistance Act of 1974; the Equal Pay act of 1963 and subsequent amendments, the Americans with Disabilities Act and subsequent amendments, Texas Statute 6252-14-V.T.C.S., Executive Orders 11246 and 11758, and the Genetic Information Nondiscrimination Act of 2008 to students, employees, programs, activities, and applicants. Temple College is an Equal Opportunity/Affirmative Action Institution.

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Temple College Policies

DMS students will abide by Temple College's policies and regulations, as set forth in the Temple College Academic Catalog, Student Handbook, and Board Policies and Administrative Regulations. In addition, policies and regulations specific to the DMS program are in this handbook; DMS students will follow these.

Mission Statement

The mission of the Diagnostic Medical Sonography Department is to provide the Central Texas area with entry-level sonographers who are prepared to take the ARDMS Examination to become registered Sonographers.

Educational Philosophy

DMS education consists of classroom, laboratory, and clinical experiences that develop the individual's potential to provide diagnostic quality sonograms. The foundation for this is derived from understanding sonographic physics, applying these principles, and understanding the relationship of anatomical structures to produce diagnostic sonograms. The faculty facilitates learning opportunities that provide the student with exposure to knowledge, skills**,** technology, and the belief systems necessary for the practice of Sonography. These learning opportunities draw from and build on each other to provide progression in developing sonographic skills. Coursework specific to Diagnostic Medical Sonography and the general core curriculum, as outlined by the College, comprises the formal education plan for the associate degree sonography student.

Learning is viewed as a continuing process involving cognitive, affective, and psychomotor domains. Learning within the DMS program is dependent on faculty-student interaction. The faculty is responsible for creating learning experiences that will assist them in meeting the objectives of the DMS program. The student is responsible for acquiring the knowledge, values, and skills necessary to meet the objectives of the DMS program. Both participants are responsible for creating and participating in a learning climate that fosters the maximum development of everyone's potential. This focus recognizes that learning beyond the formal educational setting is essential, and learning does not stop when the learner completes the formal learning plan. Therefore, the DMS curriculum incorporates the following concepts: the individual is a holistic being with varying capacity to meet their needs; the Sonographer interacts with the individual in response to unmet needs by utilizing their technical skills to provide diagnostic images.

About Sonography

Sonography is a diagnostic medical procedure that uses high-frequency sound waves (ultrasound) to produce dynamic visual images of organs, tissues, or blood flow inside the body. This type of procedure is often referred to as a sonogram or ultrasound scan. Sonography is used to examine many parts of the body, such as the abdomen, breasts, female reproductive system, prostrate, heart, and blood vessels. Sonography is increasingly being used in the detection and treatment of heart disease, heart attack, and vascular disease that can lead to stroke. It is also used to guide fine needle tissue biopsy to assist in taking a sample of cells from an organ for lab testing (for example, a test for cancer in breast tissue). Unlike X-rays, Sonography is a radiation-free imaging modality. The non-physician professionals who perform these procedures are known as Sonographers and Vascular Technologists (Sonographers

specializing in imaging and tests of blood vessels). There are myriad areas of specialization in the field of Sonography. These specialty areas are:

Abdomen - evaluation of all the soft tissues, blood vessels, and organs of the abdominal cavities (for example, liver, spleen, urinary tract, or pancreas).

Breast - frequently used to evaluate breast abnormalities found with screening or diagnostic mammography.

Obstetrics/Gynecology - evaluation of the female reproductive system

Echocardiography - evaluation of the anatomy and hemodynamics (blood flow) of the heart, its valves, and related blood vessels.

Vascular Technology - evaluation and analysis of the hemodynamics (blood flow) of peripheral and abdominal blood vessels.

Neurosonology - evaluation of the brain and spinal cord.

Ophthalmology - evaluation of the eye, including orbital structures and muscles.

Musculoskeletal – evaluation of the musculoskeletal system of the body.

Sonography as a Profession

A Diagnostic Medical Sonographer is a highly skilled professional who uses specialized equipment to create images of structures inside the human body that are used by physicians to make a medical diagnosis. The process involves placing a small device called a transducer against the patient's skin near the body area to be imaged. The transducer works like a loudspeaker and microphone because it can transmit sound and receive sound. The transducer sends a stream of high-frequency sound waves into the body that bounces off the structures inside. The transducer detects sound waves as they bounce off the internal structures. Different structures in the body reflect these sound waves differently. These sounds are analyzed by a computer to make an image of the structure(s) on a television screen or that can be recorded on videotape.

Sonographers have extensive, direct patient contact that may include performing invasive procedures. They must be able to interact compassionately and effectively with people who range from healthy to critically ill. Sonographers must also be knowledgeable about and limit the risk of exposure to blood and body fluids. Many Sonographers assist in electronic and clerical scheduling, record keeping, and computerized image archiving. Sonographers may also have managerial or supervisory responsibilities.

Admission to DMS Programs

Admission into the General and Cardiac Programs is competitive. Admission is based on the GPA in general education courses that apply to the desired DMS curriculum, the number of general education courses completed that apply to the curriculum, admission exam score, healthcare licensure/certification, and interview results.

Prerequisite courses must have been completed within the past five years. Students who can demonstrate that they have actively used the knowledge from a course may request an exception to this rule from the Chair of DMS.

The Applicant Ranking Worksheet is the rubric used to determine who will be offered an interview. A copy of the rubric is located in Appendix A.

The DMS Admissions Committee requests and schedules interviews. Applicants selected for the interview process will be provided with a date and time for the interview.

Admission Requirements

Students desiring admission to one of the DMS programs must:

1. Be available for day, evening, and weekend clinical rotations.
2. Attend a DMS information session at Temple College. The dates are published on the Temple College DMS webpage.
3. Applications are only available during an information session. Applicants living outside a 200-mile radius of Temple College may opt to view the information session through online meeting software with prior notice. Please contact the DMS Department for more information.
4. Complete the HESI - 2 (Health Education System Incorporated) test with a minimum score of 75% in each of the four areas: Reading, Math, Science, and English. The student may take the HESI-2 test twice within the application cycle. The highest scores will be taken. The test is available at the Temple College Testing Center on a walk-in basis. When signing up, choose ATI Health Professions, Sonography.
5. Complete the Temple College admission procedure and become a Temple College student. Admission to Temple College does not imply or guarantee admission to the DMSO Program.
6. Complete a Diagnostic Medical Sonography application and submit it before the 2nd Wednesday in October for the General Sonography Program or before the 2nd Wednesday in May for the Cardiac Sonography Program.
7. Furnish official transcripts from all schools attended, including all prerequisite course grades, to the Temple College Admissions and Records Office.
8. Provide unofficial copies of transcripts to the DMS Department.
9. Complete the required prerequisite courses before the start of the General or Cardiac Program. To be eligible for consideration, prerequisite courses MUST be completed with a 2.0 or higher and an overall GPA of 2.5 or higher. Refer to the Temple College Catalog for the current list of requests. Students transferring coursework from out of state will need to have their courses evaluated to determine if they are equivalent.

Students who apply for admission while completing the prerequisites should request the professor email the DMS Department Chair with their grade as of October 1st for the General Program or May 1st for the Cardiac Program, to be used in the Applicant Ranking Worksheet. It is understood that this grade is a snapshot of the course and is not a final grade. An official transcript with the final grade must be submitted after the semester ends.

10. Be in good standing with all credentials or license bodies if the student has obtained a credential prior to the application deadline.

Conditional Acceptance

The top-ranked students after the interview will be given conditional acceptance into the program. Students who are selected will have two weeks to complete the following requirements:

1. Submit the completed medical examination form verifying good physical and mental health. Medical information should include documentation of the following:
    a. A negative TB test, skin test, or chest radiograph within the previous 3 months,
    b. Required immunizations
        i. Mumps, measles, rubella (2 doses of measles vaccine required)
        ii. Tetanus, diphtheria (within 10 years)
        iii. Hepatitis B (may require six months to complete)
        iv. TB Skin test, negative chest x-ray, or negative blood work completed within the previous six months.
        v. Influenza (required for spring admission. Students taking courses in the fall will be required to submit proof of immunization in October.
        vi. Varicella or proof of disease (chicken pox) (2 doses required unless the first dose was received before the age of 13)
        vii. COVID-19 vaccine – Temple College does not require this. However, several of our clinical sites do.
    c. The physician's notation that the applicant should be able to meet the physical requirements of the program. Refer to the Technical Standards listed in the Appendix.
2. Provide documentation of a satisfactory criminal background check from the current College vendor. Failure to give permission for a criminal background history check will result in dismissal from the program. Students with a prior criminal history must provide a statement from ARDMS that allows them to sit for the ARDMS exams and attach it to their DMS application. Students with infractions that would prohibit ARDMS certification will not be admitted to the General or Cardiac Program. Clinical sites may also prohibit students from their property even if ARDMS allows the applicant to sit for the ARMDS Exam. It will be necessary to dismiss students with a criminal background if they are banned from practicing at any healthcare facility, they will not be admitted into the program.
3. Provide documentation of a negative 11-panel drug screen. Temple College or any clinical site may request additional drug screening at any time during enrollment in the DMS programs. A positive drug screen will result in immediate dismissal from the DMS program without eligibility for re-admittance. Failure to give permission will result in rescinding a

conditional seat in the program or dismissal from the program without eligibility for reinstatement.

4. Provide documentation of successful completion of the American Heart Association BLS Provider CPR course.
5. The cost of CPR, drug screening, and background checks is the student's responsibility and is not covered by tuition or Temple College.

Once all requirements have been submitted, the student will be admitted into the program.

Expectations and Goals

It is the goal of the DMS team, in conjunction with the support services at Temple College, to:

1. Prepare graduates to successfully challenge the ARDMS boards through didactic education and clinical experience.
2. Prepare students to successfully meet the challenges of being a sonographer.
3. Provide a high-quality educational experience for all students.
4. Provide tutoring to all students in need to help ensure their success in the program.
5. Educate students on the significance of continuing education and instill in them the desire to continue their education after graduation.
6. Graduate sonographers to practice sonography within an ethical and legal framework consistent with ARDMS and SDMS standards.
7. Graduate sonographers who use critical thinking to analyze clinical data and to develop proper judgment as a basis for decision-making in Sonography.

Sonography offers a challenging and rewarding career to those who are willing to spend the time necessary to master the tools and techniques required for this discipline and pass the ARDMS boards. Our desire is to provide you with an enriched learning environment to prepare you for your future as a sonographer. The successful sonography student enjoys working with advanced technology, commits to an ongoing learning experience throughout their career, and has the desire to provide the highest quality patient care.

Goals

To prepare competent entry-level sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains for the following concentration(s):

- Abdominal Sonography – Extended
- Adult Cardiac Sonography
- Obstetrics and Gynecology Sonography
- Vascular Sonography.

Advanced Placement, Transfer of Credits, and Credits for Experiential Learning

Transfer from another DMS Program

Transfer students who have been enrolled in a programmatically accredited DMS program will be considered for admission on a space-available basis. Temple College's policies for accepting transfer students will apply (see the Temple College Catalog section on transfer students under Application for Admission). In addition, the following policy for transfer from another DMS Program to the TC DMS Program will apply.

1. Admission to the DMS program after failure in another college or university DMS program will be allowed, provided the student is eligible for readmission to the failed program or recommended by the previous Program Director. Official letters from the failed program are required for validation.

2. The student must apply for enrollment at Temple College and arrange for all official transcripts to be sent directly to the Admissions and Records Office at Temple College. An unofficial copy of all transcripts and all coursework should be submitted with an application to the DMS Department Chair.

3. All prerequisites required for the Temple College DMS Program must be completed with a grade of at least C and a minimum of a 2.5 GPA.

4. Course descriptions for each Sonography course completed should be submitted with the student's application to the DMS Department.

5. Before the final determination, the DMS Chair may request the student provide further information and may consult with specific faculty regarding the acceptability of DMS transfer courses into the Temple College curriculum.

6. Prospective transfer students may be required to take an exam to demonstrate knowledge of their previous course material. When asked, potential students should be able to identify abdominal, pelvic, and small parts protocols adequately. Potential transfer students may also be asked to scan to determine their proficiency.

7. Any student transferring into the DMS program from another DMS program will enter the Temple College DMS program with only one attempt to complete the program.

Credit for Previous Learning

Students seeking to complete an AAS may be issued credit for the DMSO, DSAE, or DSVT coursework based on a current credential from ARDMS. For example, a candidate with RDMS (OB) may be given advanced placement for courses related to obstetrics and gynecology. Students must be enrolled in Temple College to receive credit in this manner. Students will be expected to demonstrate that they have the cognitive, psychomotor, and affective attitudes required for the course for which they request credit. Applicants interested in credit by examination should contact the DMS Department for additional information.

Petition for Equivalency

Candidates with a current license or certification in another healthcare field are not eligible for advanced placement in DMS courses.

Readmission to DMS Programs

1. Students may apply for readmission to DMS programs following their withdrawal or dismissal by submitting a new application to the DMS Chair.
2. Students seeking readmission who successfully completed any DMS courses more than one year before readmission will be required to complete one semester of lab prior to consideration for readmission to the DMS program. The students will be evaluated throughout the semester to determine their scanning proficiency and readmission into the Program.
3. Students are not eligible for readmission into a DMS program after one year from the start of the semester the student withdrew from the program. A student must apply for readmission no later than the end of the next semester following their withdrawal to allow for a semester of lab prior to consideration for readmission to a DMS program.
4. All policies specified by Temple College for readmitting students will apply as well as those specific to the DMS Department (see the College catalog section on readmission under the Application for Admission policy).
5. Applicants being re-admitted to the first semester of DMS courses will be considered using the same criteria as new applicants. The priority criteria determine all other requests for readmission and will be admitted under the degree plan in effect upon the student's withdrawal.
6. Applicants being considered for readmission will be considered on a space-available basis. (See prioritization listing).
7. The Department Chair will review the applicant's record and request for readmission with the DMS Admissions Committee and ask for recommendations regarding placement in the program.
8. A student who was dismissed for an unsatisfactory grade in a DMS course (class and/or clinical) will be asked to discuss the problems that led to dismissal and actions that have been taken that would enable him/her to reasonably expect success in completing the program, passing the registry exam, and contributing to the profession of Sonography.
9. After a second DMS program failure or withdrawal, a student is not eligible for readmission.
10. Students dismissed from a clinical site are not eligible for reinstatement into the DMS Programs.
11. Students who are administratively withdrawn from the program for any reason other than grade are not eligible for readmission.
12. Students who were dismissed from a DMS program for unsafe practice are not eligible for re-admittance.
13. Readmission into a DMS program is at the discretion of the DMS Chair.

Prioritization Listing for Readmissions and Transfers

Requests for reinstatement and transfer students will be prioritized as follows:

First priority: Former Temple College students with a passing grade in all previous DMS courses.

Second priority: Former Temple College students with one failing grade in a previous DMS course.

Third Priority: Transfer students with passing grades in all previous DMS courses with an overall GPA of 2.5

Additional Guidance

1. Within each priority group, preference is given based on GPA.
2. Reinstatement or transfer into the DMS Program at Temple College is based on available seating.
3. Reinstatement or transfer candidates are required to complete a competency scan.
4. Reinstatement or transfer candidates should be able to adequately identify abdominal, pelvic, and small parts protocols when asked.
5. Reinstatement into the DMS program is at the discretion of the DMS Chair.

Requirements for Degrees and Certificates

Requirements for graduation are listed in the Temple College Catalog. The official list of courses required for graduation is published in the Temple College Catalog, which can be accessed on the Temple College Website.

Attendance and Tardiness

Attendance is important to student success. In the classroom and laboratory, students learn new concepts and skills and then apply that knowledge and practice those skills. In addition, students will then learn how to apply that knowledge and skills to peers and simulated cases. In the clinical setting, students use the concepts and skills mastered in the classroom and laboratory in actual patient cases. All these experiences contribute to the total impact of the educational process. Therefore, the student's presence is essential. Temple College does not differentiate between excused and unexcused absences.

Attendance – Didactic and Lab

Students should refer to the Temple College Board Policies and Administrative Regulations for general expectations. The following expectations also apply to students enrolled in DMS courses:

- If a student will be late or absent from **class**, he/she must contact the DMS Instructor for that course **by 7:30 AM on the day of the occurrence**.
- Students may request to be absent for significant life events. As soon as the conflict is known, the student will notify their instructor (s).
- If a student accumulates 16 clock hours of absences from lecture/laboratory during a semester, he/she will be counseled regarding the reason(s) for the absences, and a plan will be developed to ensure future class attendance. Additional absences will result in a review of the student's enrollment status and may result in dismissal from the course.
- The DMS department is not responsible for recording or sharing lecture videos. It is the student's responsibility to gather the information covered during their absence.
- Students must provide a written physician's note for any lab or didactic time missed on exam days. Students may be asked to provide a physician's note for general absences as well.
- Students are expected to remain in the lab or classroom for the entire class period. Students should not expect nor ask to be released early after completing their scan time.
- It is the student's responsibility to ensure didactic assignments are completed within 2 weeks of an absence.

Attendance – Clinical

Clinical experience is an essential component of the DMS program. Students cannot benefit from this learning experience if they miss a clinical rotation. Students must be available for day, evening, and weekend clinics. The clinical rotation schedule is set by the Clinical Coordinator.

Students who miss clinical rotations will have less time and opportunity to complete the required competencies. The following expectations also apply to students enrolled in DMS courses:

- If a student will be late or absent from a clinical rotation, he/she must contact the DMS Course Coordinator for that course **by 7:30 AM on the day of the occurrence**.
- Students may request to be absent for significant life events. As soon as the conflict is known, the student will notify the clinical coordinator.
- If a student accumulates 16 clock hours of absences from clinical rotations during a semester, he/she will be counseled regarding the reason(s) for the absences, and a plan will be developed to ensure future class attendance. Additional absences will result in a review of the student's enrollment status and may result in dismissal from the course.
- Students must provide a written physician's note for any clinical rotation missed on exam days. Students may be asked to provide a physician's note for general absences as well.
- Students are expected to remain at the clinical site for the entire class period. They should not expect or ask to be released early if they have completed the required competencies.

Tardy

Students are expected to maintain professional behavior and be on time for all program activities. They are expected to be in place and ready to learn and/or scan at the start time. Students are encouraged to arrive at least 15 minutes early to prevent any unforeseen circumstances.

Students will track tardiness using Trajestory. They can check in once they are in their seats and ready to learn and can check out as they are leaving. Failure to check-in or out accurately is considered a violation of honesty and ethical standards.

Excessive tardiness is the accumulation of four (4) days of non-punctual attendance in one semester, independent of the course. This applies to the class, lab, and clinical activities.

Class Activities

Classroom Conduct

Classroom activities are an essential part of the DMS program. Students are expected to come prepared for class and participate fully. Private discussions or other behaviors that may potentially interrupt classroom activities and other students' learning are not acceptable. (See FLB—Student Rights and Responsibilities: Student Conduct policy in the Temple College Board Policies and Administrative Regulations.)

Due to the confidential nature of the content, visitors are not allowed in the classroom or lab during class activities without the written request and approval of the Instructor and the DMS Department Chair. In addition, students will be expected to maintain confidentiality and must sign a HIPPA compliance form.

The following expectations will be followed:

1. Come to class adequately prepared and rested. Sleeping during lectures or lab is considered disruptive behavior, and the student could be dismissed from the class.
2. Be respectful of the classroom environment. Disruptive or distracting behavior may include clicking pens, tapping the table, rude or obnoxious eating noises, or chewing ice that may interfere with another student's concentration.
3. Attend all classes and laboratories as scheduled unless previous arrangements have been made with the instructor and approved by the Department Chair.
4. Request Instructor/student conferences when needed.
5. Maintain an unbiased, open point of view during class sessions.
6. Turn in all assignments on time.
7. Function as a favorable role model for the Diagnostic Medical Sonography profession.
8. Assume responsibility for the condition of the instructional area during and at the completion of a class or laboratory session.
9. Smoking, vaping, and or e-cigarettes in non-designated areas is prohibited. The only designated area to smoke or vape is in the students' private vehicles on Temple College district property.
10. Maintain and arrange class materials in a form that will be usable in the future as a professional reference.
11. Respect furniture and equipment by careful handling and use.
12. Cheating in any form is not acceptable. Any student found cheating will be subject to immediate dismissal from the DMS program without the opportunity to reapply in the future. Refer to FLB — Student Rights and Responsibilities: Student Conduct.
13. Refrain from using abusive, provocative, or profane language and/or gestures.
14. Avoid creating or being a part of a disturbance or physical violence.
15. Demonstrate respect in interactions with patients, visitors, employees, faculty, and other students.
16. Always act professionally.

Evaluation (Class and Lab)

Course evaluations can consist of any or all of the following: written tests, quizzes, and assignments. Additional assignments, tests, and quizzes may be required during the semester. These will not appear on the syllabus.

Failure to be present for a test, quiz, or assignment will result in a zero for that grade. If the absence is approved, the student will have the opportunity to take the test or quiz or turn in the assignment as scheduled by the course instructor. The student will receive a 5% reduction.

Assignments are due at the **beginning** of the class period. Late assignments will result in no point accumulation for that assignment without a physician's excuse. The student must turn in the assignment at the beginning of the class, even if it is incomplete.

First-Year Presentation is **mandatory**. A one-letter grade deduction from the student's overall class average will result if the student is absent.

The Department believes that exams are evaluation tools as well as learning tools. Therefore, it is the department's policy to give students the opportunity to review module exams and provide feedback about them.

Once all students in the class have taken an exam, grades for each exam will be available no later than 1 week after the exam. Students may not ask to view other students' exams or lab test results.

Open book exams require a minimum 92% grade for passing.

Course Grades

Grades will not be issued until the Faculty has confirmed that all required paperwork and documentation associated with the student is complete. The grade for a course that includes an associated laboratory is composed of the didactic portion (50%) and the laboratory portion (50%), totaling 100%.

Final grades are determined following the established rubric. To pass, the student must maintain a 78 average. A course with an accompanying lab requires the student to pass both the lab and didactic portion of the course independently. Failure to pass either portion will result in failure of the course.

Grading Scale

In all DMS didactic and clinical courses, the following grading scale is in place:

Numerical Value	Letter Grade	Points
92-100	A	4.0
85-91	B	3.0
78-84	C	2.0
Below 78	F	0

Progression/Promotion

The DMS program curriculum requires the student to progress directly to the next semester's courses throughout the program. To do this, the student must:

1. Have completed all required DMS and corequisite courses with at least a "C" (a 2.0 GPA on a 4.0 scale).
2. Maintain good academic standing (see the College catalog, Academic Honors and Standards. policies).
3. Meet all Temple College registration requirements.
4. Meet all DMS requirements for continued enrollment.

Course Disruption

The Temple College Diagnostic Medical Sonography Program may be required to move instruction online using synchronous and/or asynchronous teaching methodologies based on unforeseen events. If this situation arises, students must log in daily on D2L to verify their class attendance and participation (assignments, examinations, and resources). The student will ensure they have the proper equipment to attend the online course(s). Students will notify the instructor if they do not have the equipment or if any other issues impede them from attending the online course.

The department may also be required to alter classroom and lab procedures to protect students, patients, and staff during a public health crisis. This may include health screenings to enter the classroom, maintaining a minimum separation of space, and wearing face masks. Students may also be prohibited from entering campus buildings if the student tests positive for a communicable infectious disease or has the signs/symptoms of a communicable infectious disease.

Clinical sites may also be impacted by unforeseen events limiting student access to the facility. The College will work with the sites to resume normal operations as soon as possible.

Lab Policies

Human Subject Volunteers

The DMS curriculum includes lab courses where students scan volunteers and other students to practice and refine sonographic procedures and techniques. Lab sessions are taught and supervised by experienced and credentialed sonographers.

Students are encouraged to participate as volunteers, but this participation is voluntary. Declining to volunteer as the patient will not affect the student's course grade.

Transvaginal, transrectal, or testicular scans will NOT be performed on any volunteer in the lab. Students should utilize the available phantoms to practice these exams in the lab.

If a potential incidental finding is discovered in a volunteer, the student must notify the laboratory instructor as soon as possible. The student should ask to speak privately with the laboratory instructor.

- If the nature of the incidental finding is a possible normal variant. The lab instructor will discuss the findings with the volunteer privately. The volunteer will be referred to their personal physician.
- If the nature of the incidental finding is possibly clinically significant, the lab instructor will privately discuss the findings with the volunteer. The volunteer will be referred to their personal physician.
- If the nature of the incidental finding is possibly life-threatening, the lab instructor will discuss the findings privately with the volunteer. The volunteer will then be referred to emergency care (call 911).

Competencies - Lab

Students are required to complete competencies in both the lab and clinical settings. If the student does not complete the assigned lab competencies as required, the student will receive an incomplete for the course associated with the lab and will not advance in the program until the student has completed the requirements. Two concurrent semesters where the student was not able to complete the requirements will result in the possibility of the student being dismissed from the program. If the student does not meet the scanning requirements and standards identified in the course objectives by the end of the semester, the student will be dismissed from the program.

General - Laboratory

1. 0pen lab dates will be determined by faculty availability and the number of students requesting additional time in the lab. Open labs are optional but highly recommended to enhance the student's beginning scanning skills.

2. Talking should be limited and focused on the task at head.
3. Students waiting to scan will sit in an unoccupied interview room or out in the hall. Talking will be kept to a minimum during this time.
4. Visitors are not allowed in the lab until the student is ready to scan.
5. Students are not allowed behind the counter or in the instructor's workspace area without permission.
6. Students need to be good time managers. Wasted time results in the loss of valuable scan time.
7. Students are not required to be scanned in the lab by other students. If a student does not volunteer for other students to scan them, they cannot scan another student and must furnish their own volunteers. Failure to meet the required number of scans will result in dismissal from the program. If extenuating circumstances exist, the student should put this in writing and submit it to the DMS Department Chair. The DMS Department Chair, after consultation, will discuss the options for the student.
8. Chewing gum is not allowed.

Scanning - Laboratory

1. Lab scans become a part of the student's academic record and will not be shared with other students.
2. The student is required to stretch prior to starting the volunteer interview.
3. The volunteer interview will start no later than 15 minutes prior to the volunteer's scheduled scan time.
4. The student will introduce themselves to the volunteers and their families when they are given the initial paperwork to complete.
5. The student will introduce the instructor whenever the instructor accompanies the student for an interview or enters the room while the student conducts a volunteer interview before continuing the interview.
6. The student's scan time (50 minutes) begins at the top of the hour.
7. The student's scan time will end 10 minutes before the next hour to allow for the turnover and set up of the room for the next student.
8. If the student does not meet the scanning requirements and standards identified in the course objectives by the end of the semester, the student may be dismissed from the program.

Safety - Laboratory

1. Volunteers should be escorted to the stretcher and assisted in placing them on it if necessary.
2. The stretcher should be checked to ensure it is locked before a volunteer is placed on it. If a volunteer falls because the stretcher is not locked in position, the student will be subject to dismissal for unsafe conduct.
3. The student should ensure the volunteer is comfortable before leaving to wash their hands.
4. Volunteers will be assisted when getting off the stretcher.
5. Students should not complete any paperwork until the volunteer has left the lab.

Volunteer Contact - Laboratory

Volunteers scheduled to be scanned in the lab shall be contacted by a student the day before an exam. A text or phone call to review lab protocols (i.e., no food) the night before is recommended. The student shall enter their name on the website Google document calendar that the volunteer has been contacted.

The student's hour of scanning time will start on the hour and will end 50 minutes after the hour. If the student's volunteer is not on time, waiting time is considered part of the student's scan time.

When a test is assigned during the first year, first semester, students are responsible for scheduling a volunteer for the exam. Failure to complete all single organ lab exams prior to finals week will result in an "I" for this course and prevent the student from moving forward in the program.

Evaluation - Laboratory

During the semester, multiple faculty evaluate lab technique and annotation grades. The instructor determines final grades. The department chair may revise the established test rubric as needed.

One lab test per semester may be retaken with instructor approval.

A verbal exam may be given during the first 90 days to determine scanning proficiency and monitor progress. A student may be placed on probation because of a non-satisfactory verbal evaluation. Additional verbal exams may be conducted randomly.

Clinical Rotations

Clinical rotations allow the student to apply the knowledge and skills they have learned to actual patient cases. While at the clinical sites, you begin your job interview with employers. The supervisors and sonographers evaluate your knowledge, skills, and attitudes to determine if they would like you to work at that site.

If, at any time, a clinical site determines, based on your actions, appearance, or mannerisms, that you should be removed from the clinical rotation, you may be dismissed from the Program.

Schedule

Students will be scheduled at numerous different clinical sites throughout their time in the Diagnostic Medical Sonography programs. The DMS Clinical Coordinator will determine the clinical rotation schedule to maximize exposure to multiple modalities. The clinical coordinator has the discretion to adjust within the rotation assignment.

Scheduled rotations will typically be scheduled during the work week and could be during any of the following shifts: 7:00 am – 3:30 pm, 8:00 am – 4:30 pm, 8:00 am – 5:00 pm; 7:00 am – 7:00 pm; 8:00 am – 8:00 pm; 9:00 am – 7:00 pm; 12:00 pm-8:30 pm; or 12:00 pm – 12:00 am.

Some clinic sites allow for 30-minute lunches and some 60-minute lunches. The first five rotations of the General Program (Spring, first year – Fall of second year), are 24 hours/week. The final two rotations (Spring, second year) are 16 hours/week. The rotations of the Cardiac Program (Summer I, Fall, Spring II, Summer II) are 24 hours/week.

Student Travel Policy

A sizable portion of the rotations take place at clinical sites off campus. These clinical sites are not all located in Temple. We partner with clinical sites in Waco, Harker Heights, Killeen, College Station, Round Rock, and Austin. Temple College and the DMS Department assume no responsibility for

expenses incurred because of travel or transportation to satisfy course requirements. **A reliable vehicle is required**.

Trajecsys

Trajecsys is an online tracking system used to oversee the student's progress through the program. The system maintains a record of the student's attendance, progress, performance, and competencies. Trajecsys will keep complete live track of the student's progress throughout the clinical training.

Students are expected to clock in and out of the Trajecsys system while on the premises of their clinical site. They may not clock in while still traveling to the clinic site or in the clinical site's parking lot. **Students will not be allowed to edit or make up missed entries on the clock more than three times per rotation.**

Clinical Competencies

Students are required to scan and log a minimum number of demonstrated knowledge, skills, abilities, and personal attributes needed to perform patient-focused exams or procedures within a clinical setting based on medically requested examinations. Students must successfully complete all required competencies to graduate. The current list of competencies is published in Trajecsys. Appendix E and F provide examples for the Cardiac program and general program.

Uniforms and Other Supplies

The student will be required to wear the DMS Uniform while at the clinical site. For specific requirements, refer to the section on Personal Appearance.

Clinical Guidelines for Students

1. Students must remain at the clinical site for the entire scheduled time. Students may leave the site during their lunch break.
2. Students who will be late or absent from **clinical** must notify the clinical site preceptor and the DMS Clinical Coordinator by 7:30 AM.
3. Students must comply with smoking regulations in each agency as specified by the Clinical Preceptor.
4. Students should not receive personal phone calls or texts while in the clinical unit (except for medical emergencies.)
5. Personal belongings taken to the clinical site are the responsibility of each individual. It is recommended that personal belongings not needed to conduct clinical assignments be secured in the trunks of students' cars. Approved textbooks may be taken to the clinical area.
6. Problems of a personal nature are not to be discussed with the clinical site staff or patients.
7. The Clinical Coordinator will resolve conflicts between hospital staff and students with the approval of the DMS Department Chair. If a conflict of this nature seems to be developing, the student should notify the clinical coordinator immediately.
8. Students will not take pictures while at the clinical site and are not allowed to share images of patients.
9. Client medical records may not be photocopied, faxed, e-mailed, or transmitted in any electronic, digital, or hard copy format. There may be occasions when a clinical site allows the student to bring a study back to Temple College for teaching purposes. If this is under

consideration, all identifying patient information and documentation should be removed from the documents.

10. Students must park in designated student parking areas at the clinical facilities during clinical rotations.
11. The Clinical Coordinator and the DMS Department Chair will work with the clinical site to determine if a clinical site guideline/policy has been violated. Students who violate a clinical site policy may not be allowed to return to that clinical site. If students are not allowed to return, they may not be able to complete the required competencies during that semester. Students who are dismissed from a clinical site may be dismissed from the Program as well.

Clinical Grading

The assigned Clinical Preceptor will evaluate the student's professional qualities and specialty exam competency during the clinical rotation using a 0-4 grading scale. Students scoring a cumulative score in either the Professional Qualities or the Specialty Proficiencies less than C (2.75) are considered to have failed the clinical course.

A = 3.92 – 4.0

B = 2.84 – 3.91

C = 2.75 – 2.83

Anything below 2.75 is considered failing and will result in dismissal from the program. Grades are calculated based on the Clinical Preceptor's data input into Trajecsys. These grades are calculated on a 1-4 instead of a 0-100 base, which is different from grades in other courses. Clinical Preceptors will also complete a Daily Log Sheet sign-off on each student, verifying that the recorded times are correct.

Students must also complete a Clinical Preceptor Evaluation of their site after each rotation.

Personal Appearance

Being a member of a healthcare team is not a beauty contest. The student must remain professional in personal appearance, as defined by the TC DMS program guidelines. These guidelines apply to classroom, laboratory, and clinical rotations.

1. Along with being well-groomed and clean while in uniform, the student must be constantly aware of the image he/she portrays to the public. No profanity, loud talking, and indecency are permitted.
2. Students enrolled in the DMS Program at Temple College must purchase and wear uniforms. The cost of uniforms is not included in any Temple College fees. Students will wear full uniforms during class, lab, and clinical rotations, except when they are specifically instructed not to do so. When not in uniform, the student should wear professional business casual attire. Jeans are not permitted. The uniform shall be clean, neat, and presentable. The DMS uniform color is gray. Temple College student uniform includes the DMS logo patch. Name badges will be worn on the upper left side of the uniform or in the center of the uniform.
3. Shoes must be closed-toe and appropriate for a clinical setting.
4. Good personal hygiene is mandatory. Hygiene standards include daily bathing or showering, the use of deodorants, and mouthwashes as needed. Strong colognes or perfumes are not permitted.

5. Hair (if long enough) must be pulled back from the face. No elaborate hair or decorative hair accessories are allowed. Natural hair colors only.
6. Facial hair must be neatly trimmed. Sideburns will not extend below the earlobe. Beard growth should not exceed one-half inch in length.
7. Makeup should be minimal.
8. Tattoos must always be covered in class, clinical sites, or workshops/seminars.
9. DMS students must maintain hand hygiene by adhering to specific infection control practices.
    a. Fingernails are to be neatly manicured and of reasonable length (1/8 inch or less). Fingernails can be designated as being too long by any member of the DMS faculty or any clinical preceptor.
    b. Artificial fingernails or enhancements are not permitted.
    c. Nail polish is permitted if it is not chipped, but anything applied to natural nails other than polish is considered an enhancement. This includes but is not limited to, artificial nails, tips, wraps, appliqués, acrylics, gels, and any additional items applied to the nail surface.
10. Jewelry should be minimal and appropriate for a professional appearance.
    a. Students should only wear one or two rings per hand. Watches are permitted.
    b. Students may not wear necklaces or dangling jewelry.
    c. Students can only wear small stud earrings 4-5 mm (no hoops) and are not to exceed one per ear. Earrings may be worn in the earlobe. Gauge earrings larger than a single stud earring must be removed, and the remaining hole must be covered with an adhesive bandage while the student is in the lab or at a clinical site.
    d. Students will not wear other visible body-piercing jewelry, including tongue studs.
11. Chewing gum will not be allowed.
12. When required to attend workshops/seminars or other functions where uniforms are not required, appropriate business casual attire is expected. Shorts, blue jeans, garments with holes, halter-type tops, and cropped tops are considered inappropriate for these occasions.
13. Students should behave in a manner that promotes a positive image and goodwill with the Clinical Preceptors. Students are encouraged to fill gel bottles, restock supplies, and look for ways to assist the sonographer's workflow.

The Clinical Preceptor, DMS faculty, or DMS Department Chair will be responsible for determining if a requirement has been violated.

Violations of the personal appearance policy requirements will result in a 5% reduction in the student's final grade for each infraction. Habitual violations (3) will result in dismissal from the DMS program without eligibility for reinstatement.

DMS Student Disciplinary Action

DMS students are subject to the same disciplinary procedures as all TC students. For details, refer to the Student Conduct and Student Disciplinary Procedure policies in the TC Board Policies and Administrative Regulations. In addition, DMS students are subject to the DMS Student Discipline policy.

Displaying a behavior or practice that is inconsistent with safe sonography practice or policies of the DMS program as outlined in the DMS Student Handbook, the TC Board Policies and Administrative Regulations, and course materials can result in disciplinary action, including a warning, repeating an assignment, clinical experience, or course, probation, suspension, assignment of a failing grade, or dismissal from the program. This list is not all-inclusive, and other appropriate punishments may be assigned.

Violations of policy may be considered a minor or major incident. The Clinical Coordinator or course faculty, along with the Chair of DMS, will be responsible for determining if a minor or major incident has occurred. Factors that will be considered in determining whether an incident is considered a minor or major incident are:

1. the significance of the event in a particular setting;
2. the situation in which the event occurred;
3. the presence of contributing or mitigating circumstances; and
4. a reasonable expectation that the student had the knowledge and skills to practice safely and appropriately in a particular situation.

A major incident is defined as conduct that indicates the student's behavior or practice poses a substantial risk of physical, psychological, or financial harm to a client or other person

Failing to report exposure to a potentially contagious pathogen and potentially endangering the physical or emotional well-being of a patient, another student, faculty, or staff member will result in automatic termination from the DMSO program.

These are not all-inclusive lists. Multiple violations from the Minor Incident list may result in a Major Incident.

Minor Incident

1. Violation of the dress code.
2. Eating or drinking in patient care areas.
3. Engaging in non-patient activities when patients are waiting to have their examinations performed.
4. Using cell phones in the classroom or clinical areas for non-emergency matters.
5. Chewing gum while providing patient care services.
6. Returning to the clinical site after hours or on weekends without prior approval of the Clinical Preceptor, Clinical Coordinator, and DMS Department Chair.
7. Smoking, vaping, and or use of e-cigarettes in non-designated areas.
8. Accepting gratuities from visitors, patients, or patient family members.
9. Failing to complete a critical incident report within one hour for sharps injuries and within twenty-four hours for all other incidents.
10. Failure to maintain Trajecsys attendance records, complete required competencies, or complete clinic preceptor evaluations in a timely manner.

Major Incident

1. Falsifying a document or record.

2. Falsifying or promoting a falsification of a fact or circumstance.
3. Cheating.
4. Plagiarism.
5. Leaving the clinical site without notifying the clinical preceptor and the Clinical Coordinator.
6. Leaving the class or lab without notifying the course instructor.
7. Noncompliance with TC and clinical sites' codes of conduct.
8. Being under the influence of or use of intoxicating substances on campus or at a clinical site.
9. Creating or being a part of a disturbance or physical violence while on campus or at a clinical site.
10. Using abusive, provocative, or profane language or gestures in a way that is considered unprofessional while engaged in assigned student activities.
11. Performing a procedure on an individual without a physician's expressed order.
12. Failing to properly check the identification of a patient.
13. Performing the wrong sonographic examination on a patient.
14. Violating patient confidentiality.
15. Patient abandonment.

Grievance Procedure

All grievances will be managed through regular administrative and organizational channels and in accordance with formal policy (See Disciplinary Proceedings and Grievance Procedures in the Current Board Policies and Administrative Regulations.

Grievance - Student Rights to Due Process

It is the policy of the Diagnostic Medical Sonography Department and Temple College, in general, to affect policies and processes that reflect an appropriate level of due process to guide academic and disciplinary decisions specifically related to their programs of study. The application of sanction(s) shall be the result of the following process:

1. The student subject to sanction shall be advised of the specific behavior that is grounds for disciplinary action and/or academic sanction.
2. The student shall be made aware of how their behavior violated program and/or college policy.
3. The student will be advised of the possible outcome(s), including, but not limited to, program-specific sanctions.
4. The student will be given the opportunity to give their side of the events before disciplinary action or academic sanction is applied.
5. Once a decision has been made, the student will be informed of the decision(s) and shall be advised of their appeal rights.

The student appeal policy is found in the Temple College Board Policies and Administrative Regulation: FLD—Student Rights and Responsibilities: Student Complaints—Local.

Disciplinary Actions

A student may be placed on probation or issued other appropriate disciplinary actions probation for failure to maintain the program's policies and standards. The Faculty Member will initiate the disciplinary process. Conditions for completing the disciplinary action will be determined at the implementation time.

1. When possible, counseling will be provided to any student who is beginning to display evidence of behavior or practice that is inconsistent with safe sonography practice or policies of the DMS program. The counseling will be documented, and progress will be monitored to assess problem resolution within the established time limit.
2. Upon determining that a minor or major incident has occurred, the faculty member or Department Chair will immediately bring the problem to the student's attention, and an investigation will ensue to understand the events surrounding the event.
3. Progress will be monitored to assess problem resolution. The student is responsible for requesting assistance or further guidance that may be needed. When problem resolution occurs, and the conditions of the disciplinary action are met, the incident will be considered resolved.
4. If the student has two unresolved counseling or minor incidents for which the terms of the disciplinary action have not been met or any one single major incident, the student may be placed on probation by the DMS Department Chair. Conditions leading to the probation and for removing probation and consequences of failure to fulfill the probation conditions will be identified in writing.
5. If the student does not meet probationary conditions, dismissal from the DMS program will result. Refer to the Withdrawal/Dismissal from the DMS program for additional information.
6. All disciplinary action reports will be reviewed with the student and copies will be distributed to the student and DMS Department Chair and placed in the student’s file. Copies may be provided to the Clinical Coordinator or other DMS instructors to ensure the required conditions are completed.

Health, Safety, and Welfare

Temple College is concerned about the general health, safety, and welfare of all its students, employees, and visitors. College policies related to safety, immunizations, communicable diseases, tobacco use, and drug and alcohol use can be found in the Temple College Board Policies and Administrative Regulations. In addition, the DMS Department has specific policies related to these topics. It is the student's responsibility to follow all infection control and safety procedures.

Mental Health Resources

Faculty may encourage students who are distressed or show signs of erratic or mental health behaviors to seek mental health counseling. If the student feels like they would benefit from this assistance, please seek help. Mental House resources can be found at: https://www.templecollege.edu/resources/mental-health-resources.html

Health Status

DMS students must furnish documentation that the applicant is in good physical health during the application process. The physical examination must have been done within six months prior to beginning the program. If a student has any notable change in health or a health condition that may affect or be affected by school performance, he/she will be required to obtain a physician's release. The release must specify that the student is able to return unrestricted to classroom and clinical activities. Examples of these conditions include but are not limited to 1) pregnancy, 2) infectious diseases, or 3) physical injuries. This release request may be made at the discretion of the Instructor or DMS Department Chair. Refer to the Health Status Form in Appendix C

Health Insurance

Temple College and affiliated agencies are not responsible for providing health care services in case of illness or injury. It is strongly recommended that students carry health insurance since they are responsible for their own health care costs. In addition, students may be requested to acknowledge and sign liability release forms since area clinical facilities are not liable for injuries or communicable diseases.

Accident and/or Medical Incident Reports

Students who experience or witness an injury during their educational experience will be expected to report the injury in a timely manner. In addition, the following rules are applicable:

1. In the event of unusual occurrences involving a student, employee of the clinical facility, and/or patient, an institutional incident/accident report should be completed. The student will notify the faculty, clinical preceptor, and/or Clinical Coordinator as soon as possible. These may include such incidents as a medication error, patient injury witnessed by the student, and/or student injury.
2. Students who are injured should provide immediate medical care. As soon as reasonably possible, the student should report the injury to the appropriate faculty or clinical preceptor. If the injury occurred at the clinical site, they should also notify the Clinical Coordinator within a reasonable time frame.
3. Students are strongly encouraged to seek medical care, which may be available immediately at the clinical site. The student may also elect to seek his/her own private medical care elsewhere.

4. Students are not employees of Temple College or the clinical sites. They are not eligible for workers' compensation. Students are responsible for all costs associated with the treatment of an injury or illness that results from their educational experience.
5. Students who elect not to receive treatment will be expected to submit a signed "Decline of Medical Treatment" form. A copy of the form can be found in Appendix D. In such an event, the clinical preceptor or faculty member may dismiss the student and require a medical release before the student returns to class or clinical.
6. The student will also submit a copy of the incident form with further explanation of the incident to the DMS Department Chair for filing into the student's records. A signed copy of the "Decline of Medical Treatment" form will be maintained in the student's record.

Communicable Disease Policy

Students may not always know that a patient has a communicable disease. As such, students will follow the department and clinical site's universal precautions policy. Students who are exposed to communicable diseases should report the exposure to the Clinical Coordinator. Failure to report exposure to a potentially contagious pathogen can result in recklessly endangering the physical or emotional well-being of a patient, students, faculty members, and/or staff members. Failure to report the exposure will result in **AUTOMATIC TERMINATION** from the DMSO program.

Students must meet the immunization guidelines and requirements set by the clinical sites.

Drug and Alcohol Policy

All students in the sonography program are expected to conform to the Temple College drug and alcohol policy found in the Temple College Board Policies and Administrative Regulations and the Temple College Student Handbook. They are not to use, possess, sell, or transfer any alcoholic beverage or any illegal, illicit, or designer drugs on the campus or while engaged in any college instructional program. Further, they are not to engage in any substance abuse.

Because sonography students are preparing for a career in health care, this student substance abuse prevention policy is especially important. Healthcare providers are expected to know the major differences between reasonable practices related to personal health care and practices that are detrimental to personal health care.

Healthcare providers have an obligation to present themselves at a work site prepared to undertake their respective assignments. As such, they have an obligation to not use any substance prior to arrival at the work site or while at the work site, which may impair their job performance. DMS students are subject to "for cause" drug testing when their performance, conduct, or other actions indicate substance abuse. "For cause" means such indicators of impaired behavior as erratic movement, dilated eyes, slurred speech pattern, loud, abusive, or uncharacteristic speaking, or the presence of an alcohol odor on the person's breath.

In "for cause" situations, testing will be conducted at a state-certified drug testing facility approved by the College. Results will be reported to the Chair of DMS and the Dean of Health Professions I. This test will be at the student's expense. Should the student enter a professionally directed rehabilitation program, The DMS Department will consider reinstatement of the student upon receipt of proof that the student successfully completed the program.

Refusal to submit to "for cause" drug testing will lead to disciplinary action, up to and including dismissal from the DMS program. Should the Department Chair decide to dismiss the student from the program, the student will have access to the College's appeals process. This process is described under the heading "Grievance Procedures" in TC Board Policies and Administrative Regulations.

Pregnant and/or Parenting Students

Students may be given accommodations, supportive measures, adjustments, or excused absences related to pregnancy or parenting. Students who wish to receive accommodations or support measures should contact the Office of Student Accommodation

Miscellaneous Policies

Criminal Background

All students, including employees of one of the clinical sites, must complete a criminal background check to begin clinical rotations. The check must be repeated if the student's educational progress has stalled or been delayed for more than two years. It must be completed by the due date set by the Clinical Coordinator.

The student is responsible for notifying (in writing) the Chair of DMS of ANY arrests, regardless of adjudication, that occur after beginning the program. Failure to promptly notify the Chair shall be grounds for dismissal from the program. Pending the resolution of an arrest, the student may be suspended from clinical sites. A student convicted of a crime that is prohibited by the clinical sites while enrolled will not be able to complete the program.

ARDMS - American Registry for Diagnostic Medical Sonography Certification

Students seeking an ARDMS credential must pass the boards administered by the ARDMS. Under certain conditions, the ARDMS Board may delay or refuse to admit persons to their examination or refuse to issue certification of registration. Persons may be denied certification of registration for "having been convicted of a crime, including a felony, gross misdemeanor, or misdemeanor, other than a speeding or parking violation. Being convicted of a crime includes, but is not limited to, being found guilty pleading guilty, or pleading nolo contendere (no contest)." **It is the responsibility of the student** to review the ARDMS guidelines for eligibility to sit for the ARDMS Boards. The guidelines for eligibility to sit for the ARDMS Boards can be found at www.ardms.org.

Cell Phones, Tablets, and Smart Watches

Communication Devices can be both a useful tool and a distraction. As such, students should use them appropriately. Communication devices should *be used intermittently* in the lab and clinical setting. They may not be used while interacting with a patient or simulated patient to protect patient privacy. In the classroom setting, students may use them if it is related directly to the topic at hand. While functioning in your role as a student, you should always set your device to vibrate or silent mode.

In the event of an emergency, complete the task and excuse yourself to find a private area to use the device. If it is not an emergency, find a private area to use the device at the next break.

Cell phones and smart devices are never allowed during testing. If a cell phone or smart device is visible during an exam, this will be considered a violation of the Academic Integrity Policy.

Email/Text Policy

Students should check their College s email at least twice daily. If the student has an email from the DMS Department Chair or any DMS program staff member, please respond as soon as possible. An email initiated from a faculty member to a student will be sent to the student's Temple College email address or via text message. A "TEAMS" account will be established to contact lab and class instructors which will notify the entire cohort simultaneously. Please keep texts and responses to a minimum. TEAMS should only be used to communicate high-importance matters. Personal matters should be communicated in a private TEAMS message to that individual.

Graduation

DMS students must meet all the requirements for the Associate of Applied Science Degree, the Advanced Technical Certificate, or the Level II certificate, as specified by the DMS Department and Temple College. Students enrolling for the final semester should complete an application for graduation at the time of registration of their final semester. The College catalog should be referred to for specific dates and details. To receive a degree (diploma), it is necessary to pay the graduation fee and apply for graduation prior to deadlines.

Please note: Students must remove incomplete grades in courses that are required for graduation within 30 days from the graduation date to be considered a graduate for that term. Students who wait until the subsequent term to resolve the incomplete grade will be considered for graduation in the term in which the incomplete was resolved. This policy does not relieve students from meeting course prerequisites.

Pinning Ceremony

The pinning ceremony is mandatory and is held at the end of the last semester of the curriculum. The requirements for the DMS program must be completed and take precedence over any job responsibilities associated with the Register Sonographer Resident opportunity. The pinning ceremony recognizes the students who have endured two arduous academic years within the Diagnostic Medical Sonography program. Moreover, the ceremony identifies the status change from student to sonographer in the medical field. Students will be recognized as both General Sonographers or Cardiac Sonographers and vascular sonographers at the pinning ceremony.

Recordings, Photographs, Videos

Students may not take photographs or videos at a clinical site. However, they may take pictures, videos, or voice recordings during class or laboratory experiences with the prior approval of the Faculty or Department Chair.

Student Work Policy

Once the student has been seated in a Temple College DMS program, students are not allowed to work as a Sonographer until the student has earned a credential as a sonographer. Students who have earned a credential as a sonographer and are enrolled in another program specialty may accomplish their clinical competencies during their training and/or their employment once they have become registered. The registered sonographer resident must be approved by their employer to function as a student and be closely supervised by a registered preceptor to ensure appropriate supervised clinical experience. When students work on competencies for which they are not credentialed, they must inform the patient that they are a student. All requirements for the DMS programs must be completed and take

precedence over any job responsibilities associated with the Register Sonographer Resident opportunity.

Registered Sonographer Resident (RSR)

A Registered Sonographer Resident is a credentialed sonographer in training seeking to further his or her knowledge, skills, and abilities in another specialty (i.e., Vascular) under a programmatic accreditation such as a CAAHEP. Students (RSR) who enroll in another (i.e., vascular program) may accomplish their clinical competencies during their training and/or employment once registered. At no time should this opportunity interfere with the academic, didactic, laboratory, or clinical responsibilities.

Sexual Harassment

Sexual violence and sexual assault will not be tolerated at Temple College. Temple College has a Title IX Sexual Violence and Sexual Assault webpage that informs faculty, staff, and students about the prohibition of sexual misconduct. The website also identifies the campus Title IX Coordinator, provides a link to the Title IX Sexual Violence and Sexual Assault policy, and provides community resources and information for local agencies that can assist a victim of sexual assault. The link to this webpage can be found at: https://www.templecollege.edu/resources/safety/title-ix/title-ix-and-sexual-violence.html#

Socialization Policy

Student interaction with faculty, staff, and clinical site employees should be limited to sonography instructions and training. This policy applies throughout the program's duration. Failure to abide by it may result in disciplinary action and/or dismissal from the DMS program.

Gossip is idle talk or unconstrained conversation, especially about the personal and or private affairs of others; the act is also known as dishing or tattling. Gossiping will not be tolerated and will be considered a major incident. Talking about other students, staff, faculty, or clinical site employees is prohibited. Violations of this policy will result in the following:

a. The first offense will result in student counseling, and a warning will be issued.
b. The second offense will result in dismissal from the DMSO program. NO EXCEPTIONS.

Social Networking Policy

LinkedIn, Facebook, or similar social network requests should be reserved until after graduation unless preapproved by a faculty member. Students are not to take pictures while at a clinical site. Pictures in the lab require prior approval of the faculty member. Postings related to clinical, lab, or classroom experiences, including but not limited to patient experiences, interactions or communications with other professionals, fellow students, and faculty, are considered unprofessional behavior and will not be allowed. Violation of the policy could result in disciplinary action and may lead to dismissal from the DMS program.

Vacation Policy

If the student plans to take a vacation between semesters, it is the student's responsibility to ensure that the vacation dates will fall between semesters. If a date for the start of the next semester has not been announced or is not available, the student should wait until this information is available prior to scheduling the student's vacation.

Due to the clock hour requirement for DMS clinical rotations, there is usually no more than one week between the spring and summer semesters. It is not advisable to schedule a vacation during this time. A

late change in the college start date for summer classes could affect the start of the summer classes in the DMS program.

The student must submit a time-off request form and obtain signatures from the Department Chair and Clinical Coordinator. The form will be denied if any of the faculty members do not approve it. Time-off requests should be submitted with 30 days' notice.

Withdrawal/Dismissal from a DMS Program

A student who intends to withdraw from a DMS program should submit a written statement to the DMS Chair prior to or at the time of withdrawal. Failure to do so will jeopardize the student's eligibility for readmission. If possible, an appointment should be made with the DMS Chair prior to making a final decision to withdraw from the program. In addition, the student must complete any necessary procedures as outlined by the Admission and Records office (see the TC College catalog section on Changes of Schedule and Withdrawals under the Registration policy). Withdrawal from a DMS Program could affect previous Financial Aid disbursement and require repayment.

A student may be dismissed from a DMS program for any of the following:

1. Failure to achieve minimum acceptable grades.
2. Loss of a clinical site as a direct result of a student's action.
3. Being removed from a clinical site by the site.
4. Unsatisfactory clinical performance that endangers others or is a potential danger for others, as determined by the clinical instructor.
5. Demonstration of behavior that is not compatible with the accepted practice of a professional Sonographer.
6. Failure to meet attendance requirements (see the DMS and Temple College Attendance policies).
7. Failure to fulfill or be removed from any probation conditions.
8. Failure to follow instructions from any DMS Instructor and/or DMS Department Chair.
9. Failure to pass the didactic portion of any course.
10. Failure to pass the lab portion of any course with a lab.
11. Failure to pass a clinical or practicum course in the program.
12. Plagiarism.
13. Patient Abandonment

Appendix A

Temple College DMS Applicant Ranking Worksheet

Student Name _____

Students seeking admission, reinstatement, or transfer into the DMS program are initially evaluated on the following criteria.

	Category	Points
Prerequisite Course Completion	To be eligible for consideration, each of the following courses MUST be completed with a 2.0 or higher and an overall GPA of 2.5 or higher. **Completed within the last 5 years* **OR** *approved by the DMS Program Chair.* **MATH 1314** College Algebra* _____ **PHYS 1401 / 1407** College Physics* _____ **ENGL 1301** Composition I _____ **BIOL 2401** Anatomy and Physiology I* _____	**Maximum 32** A = 8 B = 7 C = 6
Co-Requisite Course Completion	To be eligible for consideration, each of the following courses MUST be completed with a 2.0 or higher and an overall GPA of 2.5 or higher. **Completed within the last 5 years* **OR** *approved by the DMS Program Chair.* **BIOL 2402** Anatomy and Physiology II _____ **PSYC 2301** General Psychology _____ Humanities Elective _____	**Maximum 24** A = 8 B = 7 C = 6
HESI - 2	A **minimum** score of **80%** in **each** area: Reading, Math, A&P, and Physics, **independent** of each other. If a minimum score of 80% is met in each category, the scores will be averaged to calculate the points awarded.	**Maximum 40** A 90-100% = 40 B 80-89% = 30 C 75-79% = 20
(Extra credit, Not required) **Health Professions Education** **Military Service**	Complete one of the following Health Professions direct patient care program disciplines with a minimum 2.5 overall GPA and current licensure Certified Nurse Aide, **CNA,** Radiologic Technologist, **RT-R**, American Association of Radiology Technologists**, ARRT**, Nuclear Medical Technologist, **NMT**, Registered Nurse, **RN**, Licensed Practical Nurse, **LPN**, Licensed Vocational Nurse, **LVN**, Physician Assistant, **PA**, National Registry Emergency Medical Technician-Paramedic, **NRP, National Registry EMT EMT,** Registered Dental Hygienist, **RDH**, Surgical Technologist, **CST**, or Respiratory Therapist. *Subject to approval by the DMS Program Chair, a certificate is required.* . **Military Service – Honorable discharge.**	**Maximum 2**
Lab Volunteer (Extra credit)	1/2 point for every 1 hour of volunteer time in DMS scanning lab **OR** 1 point for every pregnant woman brought into the lab, maximum 1 pts out of 2. Volunteers are responsible for logging their time in the notebook at the lab.	**Maximum 2**
		Total Points

Appendix B

Technical Standards for the Sonographer and Vascular Technologist

Students must be able to perform the following with or without accommodations. The standards for students with accommodation do not change. The accommodations are intended to help the student perform the task or skill. professional responsibilities and technical standards of the Sonographer and Vascular Technologist include, but are not limited to:

Physical

1. Push and pull routinely.
2. Bend and stoop routinely.
3. Have full use of both hands, wrists, and shoulders.
4. Distinguish audible sounds.
5. Adequately view sonogram images, including color distinctions.
6. Work standing on their feet 80% of the time.
7. Assist patients on and off examining tables with assistance or immobilization equipment.
8. Transport ultrasound equipment.

Clinical

1. Provide quality patient care.
2. Interact compassionately and effectively with the sick or injured.
3. Communicate effectively with patients and other healthcare professionals.
4. Obtain and record an accurate patient history.
5. Organize and accurately perform the individual steps in a sonographic procedure in the proper sequence.
6. Analyze technical information.
7. Use clinical judgment to recognize the need to extend the initial scope of the procedure based on the diagnostic findings.
8. Provide an oral or written summary of the technical findings to the physician for medical diagnosis.
9. Collaborate with physicians and other members of the health care team.

Mental/Emotional

1. Possess the emotional maturity and stability to approach highly stressful human situations calmly and rationally.
2. Make clinical judgments using critical thinking.
3. Adhere to ethical standards of conduct and applicable state and federal laws.
4. Communicate effectively in written, oral, and nonverbal form with patients and their families, colleagues, health care providers, and the public.

Appendix C

Health Status Release Form

_____ has been under medical supervision

Printed Name

Date/Dates: _____.

Nature of illness or injury: _____

_____
__

____ Student can return to classroom and clinical activities without restrictions.

____ Student can return to the classroom and clinical activities with restrictions.

List any restrictions: _____

_____ _____

Signature & Credentials Agency

(NP, PA, DDS, DO, MD only)

_____ _____

Printed Name Address

_____

Date

Appendix D

Decline of Medical Treatment

I, _____, decline immediate treatment at
(Printed name)
_____. I will accept total responsibility for
(Clinical facility or Temple College) my own care.
I, _____, release TEMPLE COLLEGE from all legal
(Printed name) restraint involved with this incident.

Respectfully,

Student: _____
Signature

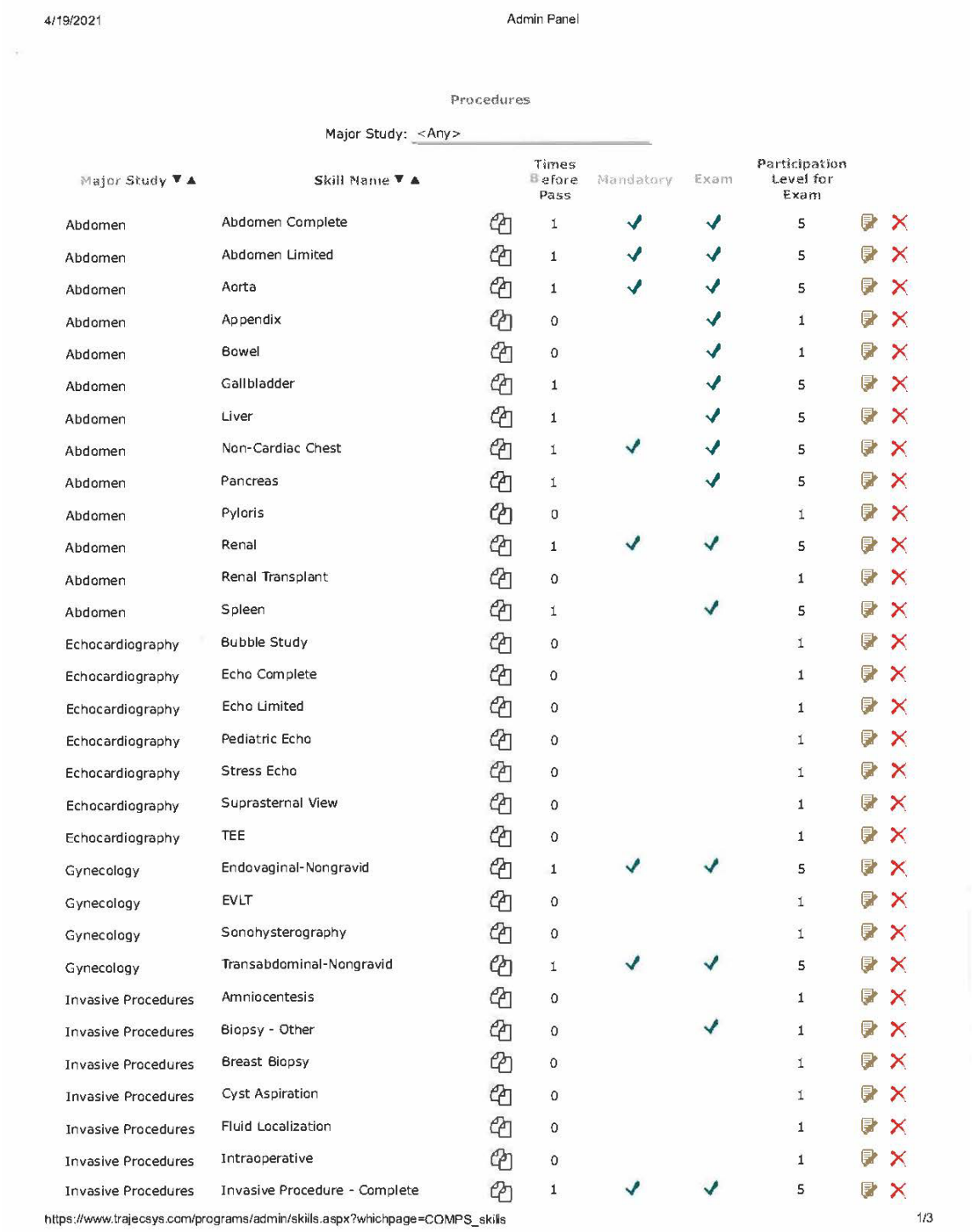
Printed Name: _____

Date: _____

Clinical Instructor: _____

Appendix E

Trajecsys Example (General Program Competencies)



4/19/2021 Admin Panel

Procedures

Major Study: <Any>

Major Study ▼▲	Skill Name ▼▲	Times Before Pass	Mandatory	Exam	Participation Level for Exam
Abdomen	Abdomen Complete	1	✓	✓	5
Abdomen	Abdomen Limited	1	✓	✓	5
Abdomen	Aorta	1	✓	✓	5
Abdomen	Appendix	0		✓	1
Abdomen	Bowel	0		✓	1
Abdomen	Gallbladder	1		✓	5
Abdomen	Liver	1		✓	5
Abdomen	Non-Cardiac Chest	1	✓	✓	5
Abdomen	Pancreas	1		✓	5
Abdomen	Pyloris	0			1
Abdomen	Renal	1	✓	✓	5
Abdomen	Renal Transplant	0			1
Abdomen	Spleen	1		✓	5
Echocardiography	Bubble Study	0			1
Echocardiography	Echo Complete	0			1
Echocardiography	Echo Limited	0			1
Echocardiography	Pediatric Echo	0			1
Echocardiography	Stress Echo	0			1
Echocardiography	Suprasternal View	0			1
Echocardiography	TEE	0			1
Gynecology	Endovaginal-Nongravid	1	✓	✓	5
Gynecology	EVLT	0			1
Gynecology	Sonohysterography	0			1
Gynecology	Transabdominal-Nongravid	1	✓	✓	5
Invasive Procedures	Amniocentesis	0			1
Invasive Procedures	Biopsy - Other	0		✓	1
Invasive Procedures	Breast Biopsy	0			1
Invasive Procedures	Cyst Aspiration	0			1
Invasive Procedures	Fluid Localization	0			1
Invasive Procedures	Intraoperative	0			1
Invasive Procedures	Invasive Procedure - Complete	1	✓	✓	5

https://www.trajecsys.com/programs/admin/skills.aspx?whichpage=COMPS_skills 1/3

Invasive Procedures	Liver Biopsy		0			1	
Invasive Procedures	Operating Room		0			1	
Invasive Procedures	Paracentesis		0			1	
Invasive Procedures	Pelvic Biopsy		0			1	
Invasive Procedures	Pericardialcentesis		0			1	
Invasive Procedures	PUBS or CVS		0			1	
Invasive Procedures	Renal Biopsy		0			1	
Invasive Procedures	Shunt/Cath/Central Line		0			1	
Invasive Procedures	Thoracentesis		0			1	
Invasive Procedures	Thyroid Biopsy		0			1	
Muscoloskeletal	Baker's Cyst		0			1	
Muscoloskeletal	Lower Extremity		0			1	
Muscoloskeletal	Pediatric Hips		0			1	
Muscoloskeletal	Pediatric Spine		0			1	
Muscoloskeletal	Rotator Cuff		0			1	
Muscoloskeletal	Tendons		0			1	
Muscoloskeletal	Upper Extremity		0			1	
Neurosonography	Doppler		0			1	
Neurosonography	Fetal Spine		0		✓	5	
Neurosonography	Neonatal Head		0			1	
Obstetrics	1st Tri - Transabd or Endovag		1	✓	✓	5	
Obstetrics	1st Trimester - Endovaginal		0		✓	5	
Obstetrics	2nd or 3rd Trimester		1	✓	✓	5	
Obstetrics	Biophysical Profile		0		✓	5	
Obstetrics	Fetal Echo		0			1	
Obstetrics	Fetal Presentation		0		✓	5	
Obstetrics	Multiple Gestations		0			1	
Obstetrics	Nuchal Fold		0		✓	5	
Obstetrics	OB Limited		0		✓	5	
Obstetrics	Placental Localization		0		✓	5	
Superficial Parts	Breast		1	✓	✓	5	
Superficial Parts	Foreign Body Localization		0			1	
Superficial Parts	Miscellaneous		0		✓	1	
Superficial Parts	Testicular		1	✓	✓	5	
Superficial Parts	Thyroid		1	✓	✓	5	
Vascular	Abdominal Doppler		1	✓	✓	5	

Vascular	Ankle-Brachial Index (ABI)		1	✓	✓	5	
Vascular	Aortic Aneurysm		0			1	
Vascular	Carotid Doppler		1	✓	✓	5	
Vascular	Dialysis Graft		0			1	
Vascular	Lo.Ex. Arterial Doppler		1	✓	✓	5	
Vascular	Lo.Ex. Segmental Pressures		1	✓	✓	5	
Vascular	Lo.Ex. Venous Doppler		1	✓	✓	5	
Vascular	Main Portal Vein (color and PW Doppler)		1	✓	✓	5	
Vascular	Plethysmographic Procedure		1	✓	✓	5	
Vascular	Pseudoaneurysm		0			1	
Vascular	Renal Doppler		1	✓	✓	5	
Vascular	TIPSS		0			1	
Vascular	Transcranial Doppler		1	✓	✓	5	
Vascular	Up.Ex. Arterial Doppler		1	✓	✓	5	
Vascular	Up.Ex. Venous Doppler		1	✓	✓	5	
Vascular	Vein Mapping		1	✓	✓	5	

Appendix F

Cardiac Program Competencies

Students in the Cardiac Program must successfully complete the following competencies for graduation:

1. Cardiac Basic Equipment Operation
    i. Set up the equipment and patient for the exam, including patient history, exam presets, and patient ECG leads
    ii. Selected correct transducer and technical factors prior to scanning, including understanding transducer orientation and anatomy in each position
    iii. Followed correct ergonomic principles while scanning.
    iv. Identified relevant anatomy
    v. Obtained routine view(s) of the heart and surrounding structures.
    vi. Utilized adjustments in patient position, transducer manipulation, and equipment controls to improve image while scanning, and in saved images. (gain, depth, TGC, focus, etc).
    vii. Correctly manipulated 2D, M-mode and Doppler controls.
    viii. Correctly labeled images. Measurements, if included, were accurate.
    ix. Monitored patient during the exam and assisted patient at the end of the exam. Critiqued images objectively.
2. Cardiac Advanced Equipment Operation
    i. Followed departmental routine for 2D, M-mode, and Doppler protocols and measurements.
    ii. Made appropriate adjustments to improve image while scanning.
    iii. Optimized 2D controls while scanning. Performed systolic and diastolic measurements including ejection fraction.
    iv. Optimized M-mode controls to include identification & measurement of systolic & diastolic patterns of intracardiac structures.
    v. Optimized spectral Doppler controls including velocity range, sample volume, PRF, wall filters.
    vi. Optimized color Doppler controls including color map, filters, velocity range, angle, and PRF to evaluate hemodynamic flow throughout intracardiac structures.
    vii. Optimized CW Doppler and non-imaging transducer and controls to assess hemodynamic flow throughout intracardiac structures and extracardiac vasculature.
    viii. Optimized Doppler controls and appropriate calculation packages to perform advanced calculations of cardiac hemodynamics.
    ix. Identified Doppler and M-mode artifacts and made corrections as necessary.
3. Parasternal View
    i. Scanned cardiac anatomy in a systematic manner following department protocol.
    ii. Identifies, and evaluates all echocardiographic structures in PLAX.
    iii. Adequate 2-D systolic and diastolic measurements of IVS, LV, LVOT, LVPW, Ao, and LA

iv. Recognizes and differentiates normal anatomical variants (Chiari network, Eustachian valve, etc.).
v. Identified and demonstrated required intracardiac and external cardiac structures in the left parasternal long axis view.
vi. Identified and demonstrated RV inflow and RV outflow structures in the left parasternal long axis.
vii. Identified and demonstrated required intracardiac structures in the basal parasternal short axis.
viii. Identified and demonstrated required intracardiac structures in the mid parasternal short axis.
ix. Identified and demonstrated intracardiac structures in the short axis angled toward the apex.
x. Utilized adjustments in patient position, transducer manipulation, and equipment controls to improve image while scanning.
xi. Correctly manipulated 2D, M-mode & Doppler.
xii. Correctly labeled images. Measurements, if included, were accurate.

4. Apical View
   i. Scanned cardiac anatomy in a systematic manner following department protocol.
   ii. Identified and demonstrated required intracardiac and external cardiac structures in the apical 4-chamber view.
   iii. Demonstrates, identifies, and evaluates LV, LA, LAA, and MV in apical 2-chamber view.
   iv. Demonstrates, identifies, and evaluates LA, MV, LV, IVS, Ao, and LVOT in apical LAX 3-chamber view.
   v. Trace systolic and diastolic area measurements for calculation of ejection fraction (single plane, biplane, Modified Simpson's bullet).
   vi. Identified and demonstrated pulmonary veins in the apical 4-chamber view.
   vii. Identified and demonstrated required intracardiac and external cardiac structures in the apical 5-chamber view.
   viii. Identified and demonstrated required intracardiac and external cardiac structures in the apical 2-chamber view.
   ix. Identified and demonstrated required intracardiac and external cardiac structures in the apical 3-chamber view.
   x. Utilized adjustments in patient position, transducer manipulation, and equipment controls to improve image while scanning.
   xi. Correctly manipulated 2D, M-mode & Doppler.
   xii. Correctly labeled images. Measurements, if included, were accurate.
5. Subcostal View
   i. Scanned cardiac anatomy in a systematic manner following department protocol.
   ii. Identified and demonstrated required intracardiac and external cardiac structures in the subcostal 4-chamber view.
   iii. Demonstrates, identifies, and evaluates respiratory variation in IVC and hepatic veins.

iv. Identified and demonstrated the IVC and hepatic veins in the subcostal 4-chamber view.
v. Identified and demonstrated the IAS and LV in the subcostal short axis view.
vi. Identified and demonstrated the AV and PV.
vii. Identified and demonstrated the MV and TV.
viii. Utilized adjustments in patient position, transducer manipulation, and equipment controls to improve image while scanning.
ix. Correctly manipulated 2D, M-mode & Doppler.
x. Correctly labeled images. Measurements, if included, were accurate.

6. Suprasternal View
    i. Scanned cardiac anatomy in a systematic manner following department protocol.
    ii. Identified and demonstrated required external cardiac structures in the suprasternal view.
    iii. Utilized the suprasternal notch to locate vascular structures.
    iv. Utilized the mid-clavicular approach to locate vascular structures.
    v. Identified and demonstrated the pulmonary artery from the suprasternal approach.
    vi. Identified and demonstrated the ascending aorta, aortic arch, and descending aorta and branches from the suprasternal approach.
    vii. Utilized adjustments in patient position, transducer manipulation, and equipment controls to improve image while scanning.
    viii. Correctly manipulated 2D, M-mode & Doppler.
    ix. Correctly labeled images. Measurements, if included, were accurate.
7. M-Mode
    i. Demonstrates, identifies, evaluates, and measures systolic and diastolic patterns of RV, IVS, LV, LVPW, and pericardium in M-Mode.
    ii. Demonstrates, identifies, evaluates, and measures systolic and diastolic patterns of Ao and LA in M-Mode.
    iii. Recognizes, identifies, and evaluates abnormal M-Mode patterns.
    iv. Determines calculated ejection fraction and correlates findings with real-time 2-D imaging.
8. Color Doppler
    i. Integrates technical factors to produce an optimal diagnostic color image (filters, velocity range, angle, pulse repetition frequency).
    ii. Recognizes, identifies, evaluates, and corrects for Doppler artifacts.
    iii. Demonstrates, identifies, and evaluates hemodynamic flow patterns of the MV including MR and MS. To include PISA, Doppler mitral valve area measurements and planimetry of the valve.
    iv. Demonstrates, identifies, and evaluates hemodynamic flow patterns of the AV including AI and AS. To include pressure half time, Aortic valve area measurements and planimetry of the valve.

v. Demonstrates, identifies, and evaluates hemodynamic flow patterns of the PV including PI and PS. To include pressure half time and pulmonic valve area measurements.

vi. Demonstrates, identifies, and evaluates hemodynamic flow patterns of the TV including TR and TS. To include pressure half time, Tricuspid valve area measurements, adjustment of the RAP and IVC and hepatic vein assessment.

vii. Recognizes, identifies, and evaluates other abnormal flow patterns (ASD, VSD, PDA, etc.).To include QP/QS measurements.

9. Spectral Doppler
    i. Demonstrates, identifies, and evaluates normal and abnormal Doppler values. To include utilization of PW for all inflow patterns (except AoV) and CW for all stenosis and valvular disease.
    ii. Utilizes and evaluates PW Doppler to assess cardiac flow patterns of the mitral valve, aortic valve, tricuspid valve, pulmonic valve, pulmonary veins, LVOT, IVC, hepatic veins, and descending Ao.
    iii. Utilizes and evaluates CW Doppler to assess cardiac flow patterns of the mitral valve, aortic valve, tricuspid valve, pulmonic valve, ascending Ao, and descending Ao.
    iv. Performs and evaluates pedoff (pencil probe) sweep through cardiac valves, SSN, and right sternal border.
10. Doppler Analysis
    i. Demonstrates, identifies, and evaluates appropriate measurements for machine calculation of
        a) Bernoulli's equation in the calculation of heart pressures.
        b) The continuity equation (AS, MS).
        c) Half-time calculations (MS, AI, PI).
        d) Right sided heart pressure (RVSP/PAP).
        e) PISA (MR).
        f) Shunt flow (Qp/Qs).
        g) E to A ratio.
        h) Pulmonary vein flow, Systolic and Diastolic velocities and "a" wave reversal.
        i) Doppler Sm, Em, and Am.
11. Echocardiogram (Routine)
    i. Prepared room and patient for the exam. Introduced self. Verified patient identity and procedure. Obtained a patient history.
    ii. Correlated patient history and other documented medical information, if available, with sonographic findings.
    iii. Utilized departmental protocol for this examination. Obtained routine views of the heart and surrounding structures.
    iv. Utilized 2-D, M-mode, color and Doppler to demonstrate cardiac structure, movement, and hemodynamics.
    v. Identified and documented any pericardial disease, flow abnormalities, or arrhythmias.
    vi. Obtained detailed views of any areas of interest as needed.

vii. Obtained appropriate measurements according to departmental protocol.
viii. Identified and documented any intracardiac or cardiovascular abnormalities.
ix. Performed scan in a reasonable time frame.
x. Monitored patient during the exam and assisted patient at the end of the exam. Critiqued images objectively.

12. Echocardiogram Anatomical Variant/Adult Congenital Heart Disease
    i. Utilized departmental protocol for this examination. Obtained routine views of the heart and surrounding structures.
    ii. Utilized 2-D, M-mode, color and Doppler to demonstrate cardiac structure, movement, and hemodynamics.
    iii. Identified and documented VSD, ASD, and/or PDA, if present.
    iv. Identified and documented endocardial cushion defect, cleft mitral valve, and/or bicuspid aortic valve, if present.
    v. Identified and documented pulmonic stenosis or atresia, Ebstein's anomaly, Tetrology of Fallot, and/or coarctation of the aorta, if present.
    vi. Obtained appropriate measurements according to departmental protocol.
13. Cardiac Arrhythmias
    i. Identified and documented cardiac arrhythmia through ECG patterns, 2D, M-mode and Doppler to include normal sinus rhythm. What condition or pathology was demonstrated?
    ii. Utilized 2-D and M-mode imaging to demonstrate cardiac structure and movement.
    iii. Utilized color and spectral Doppler to demonstrate cardiac hemodynamics.
    iv. Obtained detailed views of the area of interest as needed.
    v. Obtained appropriate measurements according to departmental protocol.
14. Progressive Proficiency: Pathology – Valvular Disease
    i. Demonstrates, identifies, and evaluates during echocardiography examinations as seen in clinic, or on films:
        a) Mitral valve stenosis.
        b) Mitral valve regurgitation.
        c) Mitral valve prolapsed.
        d) Flail leaflet or ruptured papillary muscle.
        e) Aortic valve stenosis.
        f) Aortic valve regurgitation.
        g) Tricuspid valve stenosis.
        h) Tricuspid valve regurgitation.
        i) Pulmonic valve stenosis.
        j) Pulmonic valve regurgitation.
        k) Endocarditis.
        l) Mechanical prosthetic heart valves.
        m) Bioprosthetic heart valves.
        n) Abnormal prosthetic valve.
15. Progressive Proficiency: Pathology – Pericardial Disease

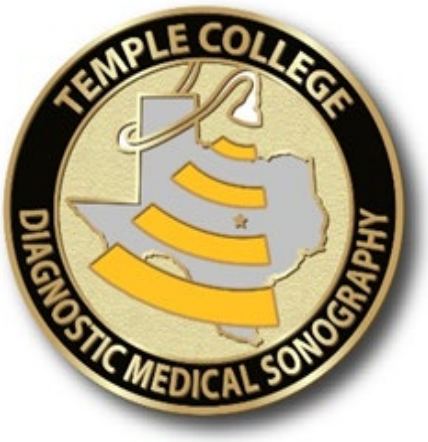
i. Demonstrates, identifies, and evaluates during echocardiography examinations as seen in clinic, or on films:
    a) Pericardial effusion vs. pleural effusion.
    b) Tamponade (electrical alternans, diastolic chamber collapse, respiratory variation of PW sampling, swinging, etc.).
    c) Constrictive pericardial disease (2-D, Doppler).

16. Progressive Proficiency: Pathology – Right Heart Disease
    i. Demonstrates, identifies, and evaluates during echocardiography examinations as seen in clinic, or on films, right ventricular overload pressure versus volume (evaluation of PV< pulmonary veins, IAS, and IVS).
    ii. Demonstrates, identifies, and evaluates RVSP with appropriate adjustments to PAP.
17. Progressive Proficiency: Pathology – LV Dysfunction
    i. Demonstrates, identifies, and evaluates during echocardiography examinations as seen in clinic, or on films:
        a) Segmental wall motion abnormalities including aneurysms, hypokinesis, akinesis, hyperkinesis
        b) Global LV dysfunction.
        c) LV diastolic dysfunction (differentiate between normal, decreased compliance, pseudonormalization, and restrictive).
    ii. Demonstrates appropriate scan time.
18. Progressive Proficiency: Pathology – Cardiomyopathies/Coronary Artery Disease
    i. Demonstrates, identifies, and evaluates during echocardiography examinations as seen in clinic, or on films:
        a) Hypertrophic Cardiomyopathy (IHSS).
        b) Provocative maneuvers for HCM.
        c) Dilated Cardiomyopathy.
        d) Restrictive Cardiomyopathy.
    ii. Identifies and documents coronary artery disease.
19. Progressive Proficiency: Pathology – Cardiac Masses/Thrombus/Vegetation
    i. Demonstrates, identifies, and evaluates during echocardiography examinations as seen in clinic, or on films:
        a) Cardiac Thrombus (atrial or ventricular).
        b) Primary cardiac tumor (benign or malignant).
        c) Secondary cardiac masses (metastases, etc.).
    ii. Identifies and documents atrial or ventricular thrombus or mass, if present.
    iii. Identifies and documents vegetation, if present.
20. Progressive Proficiency: Pathology – Diseases of the Aorta
    i. Demonstrates, identifies, and evaluates during echocardiography examinations as seen in clinic, or on films:
        a) Dilation or aneurysm of the aortic root with measurements.
        b) Dissection of aortic root with color flow.
        c) Marfan's Syndrome with assessment of major vessels AoV and MV.
21. Transesophageal Echocardiography (TEE)

i. Verifies that appropriate patient consent is secured for the examination.
ii. Assists appropriately in acquisition of vital signs and patient monitoring (BP, HR, O2, O2 sats, medication administration).
iii. Evaluates and prepares exam room for the TEE exam.
iv. Explains examination at an appropriate communication level to facilitate patients' comprehension of the examination risks, benefits, alternative, and recommended follow-up.
v. Assists physician as directed with procedure.
vi. Evaluates and adjusts ultrasound equipment to optimize imaging.
vii. Recognizes and evaluates routine images.
viii. Documents procedure and images.
ix. Interacts appropriately with other healthcare personnel to insure a safe and efficient TEE examination.
x. Cleans room and equipment, and puts away supplies.

22. Contrast/Agitated Saline Echocardiography
    i. Confirms signed permission forms.
    ii. Prepares exam room as appropriate for the exam.
    iii. Obtain intravenous access.
    iv. Prepares contrast medium.
    v. Performs echocardiogram per contrast echo protocol (LV function in multiple windows, Doppler enhancement).
    vi. Performs echocardiogram per agitated saline echo protocol (IAS, IVS in subcostal, apical windows).
    vii. Adjusts ultrasound equipment to optimize imaging (MI, gain, focus).
23. Exercise Stress Echocardiogram
    ii. Evaluates and prepares exam room for the stress echo exam.
    iii. Explains examination at an appropriate communication level to facilitate patients' comprehension of the examination risks, benefits, alternative, and recommended follow-up.
    iv. Performs echocardiogram per stress echo protocol.
    v. Evaluates and adjusts ultrasound equipment to optimize imaging.
    vi. Obtained resting and post exercise images per department routine.
    vii. Documents procedure and images.
    viii. Demonstrates appropriate scan time.
24. Pharmacologic Stress Echocardiography
    i. Prepared room and patient for the exam. Introduced self. Verified patient identity and procedure. Obtained a patient history.
    ii. Correlated patient history and other documented medical information, if available, with sonographic findings.
    iii. Verified that patient consent was obtained and patient followed exam preparation instructions.
    iv. Demonstrated knowledge of pharmacologic stress echo procedures. Followed steps during the procedure in the correct order.

v. Set up procedure equipment and supplies per department protocol. Verified right patient, right dose, and right pharmacologic agent was being used. Verified expiration date.
vi. Worked efficiently as a team member to facilitate the exam.
vii. Made adjustments to optimize the images during the procedure.
viii. Obtained pre and post injection images per department routine.
ix. Monitored patient during the exam and assisted patient at the end of the exam.
x. Cleaned room and transducer after the procedure according to department protocol.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