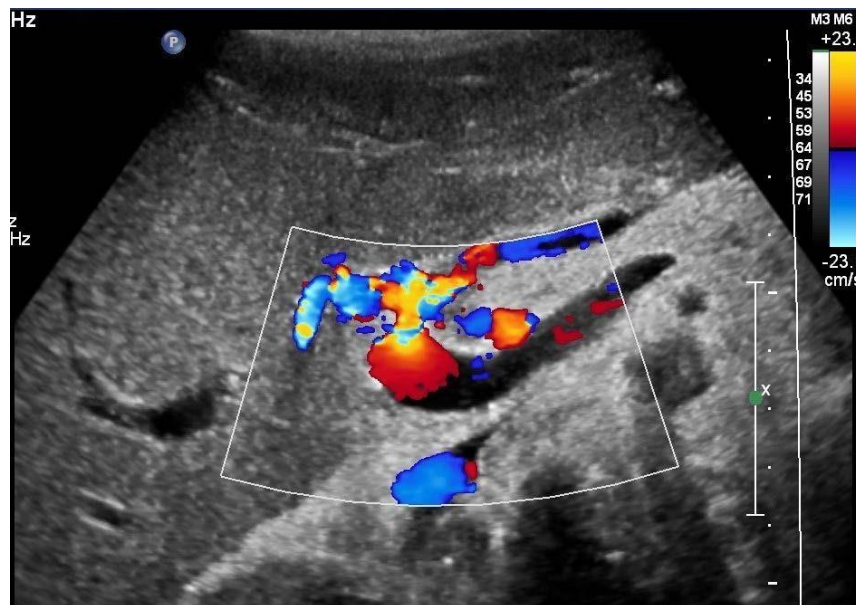


Center for Programs in Allied Health

Diagnostic Medical Sonography Program



Program Handbook
2026-2027

Updated: April 30, 2026

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2. INTRODUCTION TO PROGRAM HANDBOOK

The purpose of the Program Handbook is to serve as a reference and resource for the students in each of the programs in the VUMC Center for Programs in Allied Health (CPiAH). The Program Handbook is one of the important documents that provide operational guidance to students, to assist them in their successful progression through their programs. Other key documents with policy and procedure information important to students include:

- **Catalog of the VUMC Center for Programs in Allied Health** – Source of important policies and other information related to VUMC, the CPiAH and each program. The catalog is available on the VUMC CPiAH website.
- **Program Handbook** – Each CPiAH program provides students its own Program Handbook. The policies and procedures in the Program Handbook are aligned with VUMC, CPiAH and program policies that appear in the Catalog, as well as other locations. The purpose of the Program Handbook is to provide more specific details about each program, with a particular focus on operational information and procedures.
- **VUMC CPiAH website and Program Website** – The Center for Programs in Allied Health has its own website, and that website houses a website for each program within the CPiAH. Students will find important information regarding both the institution and the programs on these sites.

3. IMPORTANT NOTICE TO STUDENTS:

All students enrolled in VUMC Center for Programs in Allied Health (CPiAH) programs are bound by all VUMC, CPiAH and Program policies. By enrolling in a CPiAH program, every student acknowledges his or her responsibility to abide by and adhere to all institutional and programmatic policies and procedures. Therefore, students have the responsibility of being familiar with the policies and procedures described in the Program Handbook, in the Catalog of the Center for Programs in Allied Health, and on the CPiAH and respective program's websites.

4. IMPORTANT PROGRAM INFORMATION PROVIDED IN THE CPIAH CATALOG

The Catalog of the Center for Programs in Allied Health (CPiAH) contains important information about Vanderbilt University Medical Center, the Center for Programs in Allied Health and this program specifically.

Students are advised to refer to the CPiAH Catalog to obtain the following information about this program:

- Program Description
- Certification/Credentialing Information
- Program Costs
- Length of Program
- Program Delivery
- Mission and Goals
- Accreditation and Approvals
- Academic Calendar
- Staff and Faculty
- Program Advisory Committee
- Admission Information
- Academic Program
- Curriculum
- Course List & Descriptions
- Student Assessment & Grading
- Satisfactory Academic Progress Requirements
- Professional Code of Ethics
- Graduation Requirements
- Career Advising & Employment Placement
- Equipment List

VANDERBILT  UNIVERSITY
MEDICAL CENTER

CENTER FOR PROGRAMS IN ALLIED HEALTH

DIAGNOSTIC MEDICAL SONOGRAPHY

5. WELCOME

VUMC's Diagnostic Medical Sonography (DMS) Program welcomes you to your educational journey in sonography. Your 18 months in the program will be filled with information, resources, and hands-on experiences designed to prepare you for entry into a professional career in sonography.

The faculty and staff are committed to providing you with the tools necessary to build a strong educational foundation. While the curriculum is carefully designed to deliver essential knowledge and skills, it is your responsibility to engage fully and take advantage of the many resources available to you. Working together as a team, we strive to support your educational goals while meeting the objectives of the DMS Program.

The DMS Program Handbook is designed to guide you through your daily responsibilities and expectations as a DMS student. Any questions related to the content of this handbook should be directed to the Program Director. Your cooperation with and adherence to the policies and procedures outlined herein are expected and appreciated.

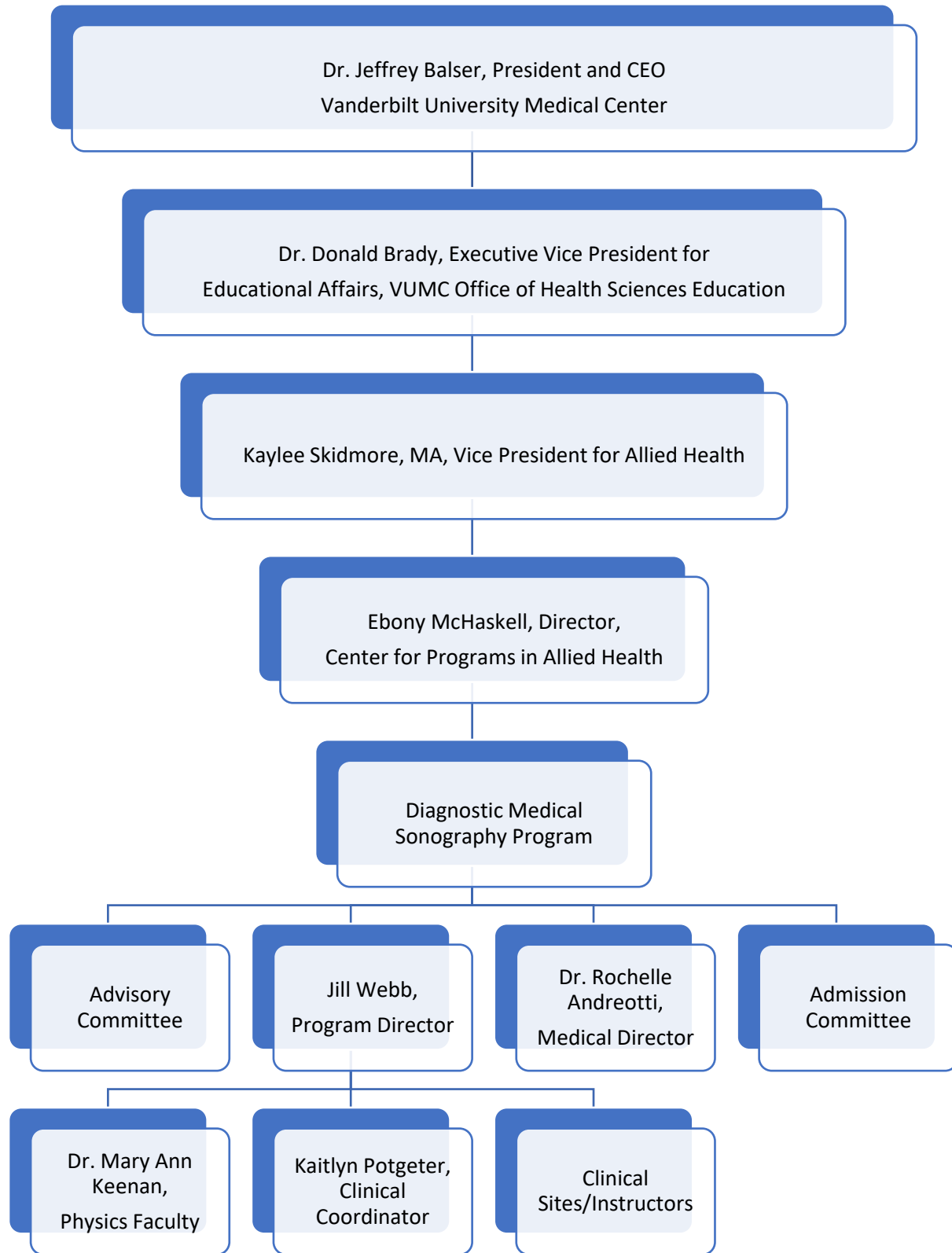
We look forward to having you in the program and are pleased that you selected Vanderbilt University Medical Center for your education. Comprehensive information pertaining to Vanderbilt University Medical Center (VUMC) may be found on the VUMC website.

<https://www.vumc.org/about/>

6. ACADEMIC CALENDAR
CLASS OF 2025-2027

FIRST ROTATION (12 WEEKS)	
<i>September 21, 2026 – December 18, 2026</i>	
Program Orientation	Program Orientation
Thanksgiving Break	Thanksgiving Break
Winter Break	Winter Break
SECOND ROTATION (12 WEEKS)	
<i>January 4, 2027 – March 26, 2027</i>	
Martin Luther King, Jr. Holiday	Martin Luther King, Jr. Holiday
THIRD ROTATION (12 WEEKS)	
<i>March 29, 2027 – June 18, 2027</i>	
Memorial Day	Memorial Day
SUMMER BREAK	
June 21-25, 2027	
FOURTH ROTATION (12 WEEKS)	
<i>June 28, 2027 – September 17, 2027</i>	
Independence Day	Independence Day
Labor Day	Labor Day
FIFTH ROTATION (12 WEEKS)	
<i>September 20, 2027 – December 17, 2027</i>	
Thanksgiving Break	Thanksgiving Break
Winter Break	Winter Break
SIXTH ROTATION (12 WEEKS)	
<i>January 3, 2028 – March 24, 2028</i>	
Martin Luther King, Jr. Holiday	Martin Luther King, Jr. Holiday

7. DMS ORGANIZATIONAL CHART



8. DMS PROGRAM ADVISORY COMMITTEE – STUDENT PARTICIPATION

The DMS Program Advisory Committee consists of educators and professionals in the field who provide oversight for the VUMC DMS Program. The Advisory Committee meets two (2) times per year.

Each cohort of students selects a classmate as the Student Representative to the DMS Program Advisory Committee. This representative will be required to prepare for and participate in the scheduled meetings. The representative will be responsible for seeking issues from the cohort and communicating these with the Program Director prior to the meeting for inclusion on the agenda. (Note: This is not the appropriate venue for hearing of individual grievances. Such grievances should be filed according to the VUMC CPiAH Grievance Policy.) Student representatives are provided with meeting documents to review prior to the scheduled meetings; these documents are considered confidential and are not to be shared directly with other students or individuals outside of the program. Student representatives are encouraged to actively participate in Advisory Committee meetings to best represent their student colleagues. Following the committee meetings, the student representatives are to consult with the Program Director on appropriate information to share with their student colleagues.

9. PROGRAM COMMUNICATION POLICY

The Program Director serves as the primary point of contact for all students in the Diagnostic Medical Sonography Program. Students are expected to direct all program-related questions and communication to the Program Director. For matters specifically related to clinical assignments and clinical experiences, the Clinical Coordinator is the primary contact.

Most program-related information will be communicated to students through their VUMC email accounts. Students are expected to check their VUMC email at least once daily; however, more frequent monitoring is strongly encouraged to ensure timely receipt of important information.

Program meetings may be scheduled periodically at the discretion of the Program Director to disseminate important information to students. Adequate notice will be provided for these meetings, and attendance is expected. In the event of an unavoidable absence, the student is responsible for contacting the Program Director to obtain the information presented during the meeting.

10. CLINICAL EDUCATION SITES

The following sites are utilized for primary clinical assignments (for purposes of technical competency and challenge completion):

- **VUH-** Vanderbilt University Hospital, Ultrasound Section in the Department of Radiology
1st Floor, VUH 1145
- **TVC-** The Vanderbilt Clinic, Ultrasound Section in the Outpatient Radiology Department
1st Floor, TVC 1630
- **CWI-** Center for Women’s Imaging at Vanderbilt
Crystal Terrace, Suite 650
One Hundred Oaks, Suite 25300

- **VWCH**- Vanderbilt Wilson County Hospital, Ultrasound Section in the Department of Radiology
1st Floor, Outpatient Center, Ultrasound Room past reception
- **VCH**- Vanderbilt Children’s Hospital, Ultrasound Section in the Department of Radiology
1st Floor, 1003

The following sites are utilized in a limited manner for specialty assignments:

- **VVL**- Vanderbilt Vascular Lab in the Vanderbilt Heart and Vascular Institute
MCE, 5th Floor (5209)
- **VBC**- Vanderbilt Breast Center at One Hundred Oaks
Suite 25000
- **MFM**- Center for Women’s Health at One Hundred Oaks
Suite 27100
- **Pedi Echo**- Pediatric Cardiology Imaging at Vanderbilt Children’s Hospital
Doctors’ Office Tower, 5th Floor

11. CURRICULUM INTEGRATION

The curriculum for the VUMC DMS Program integrates the didactic and clinical education plans. Students are provided classroom and laboratory instruction prior to the assignment of clinical requirements for the same material. Details outlining this integration are provided in a document titled *Curriculum Threads* which is located in this Handbook under Appendix A.

12. PROGRAM TECHNOLOGY REQUIREMENTS

The Diagnostic Medical Sonography (DMS) Program utilizes a **blended curriculum**, in which select courses, assessments, and assignments are delivered through one or more components of an online Learning Management System (LMS). Vanderbilt University Medical Center (VUMC) uses **Canvas** as the official LMS for the delivery of course content, instructional materials, and required assignments.

Assessments are conducted **on campus in the classroom** using the LMS. Therefore, each student is required to possess or have reliable access to a **laptop or tablet** that can be brought to class for these assessment sessions. Compatibility and functionality of the device are the responsibility of the student.

Orientation to all required LMS components is provided prior to the initiation of online activities to ensure students are adequately prepared to navigate and utilize the system effectively.

The following programs are utilized for the stated purpose(s):

- Orbund <https://vumc.orbundsist.com/einstein-freshair/index.jsp>
 - Student Record Information
 - Grades and Transcripts
 - Administration Documentation

- Canvas <https://www.vumc.org/camhl/canvas-discovery-page>
- o Distribute course documents (syllabi, handouts, assignments, grading rubrics, etc.)
 - o Discussion boards
 - o Assessments (exams/quizzes)
 - o Gradebook
- Trajecsys <https://www.trajecsys.com/programs/login.aspx>
- o Clinical Attendance Reporting (NOTE: Computers will be available in the clinical setting for this purpose.)
- Microsoft Forms- unique links will be provided to students
- o Clinical Activity Documentation
- RedCap- links will be provided to specific surveys
- o Program Evaluations and Surveys
 - o Clinical Evaluations for student performance

Additional technology requirements are provided in the CPIAH Catalog. Please refer to the Catalog for additional information.

13. REQUIRED TEXTBOOKS

Diagnostic Medical Sonography Program students are required to purchase or have full access, in any format, to the following textbooks.

Title	Author	ISBN/Publisher	Year
<i>Craig's Essentials of Sonography and Patient Care, Fifth Edition</i>	M. Robert DeJong	978-0323828581/Elsevier	2025
<i>Textbook of Diagnostic Sonography, 9th Edition*</i>	S. Hagen-Ansert	978-0323826464/ Elsevier	2022
<i>Gould's Pathophysiology for the Health Professions, 7th Edition</i>	K. VanMeter & R. Hubert	978-0323792882/ Elsevier	2023
<i>Sonography Principles and Instruments, 10th Edition</i>	F. Kremkau	9780323597081/ Elsevier	2021
<i>Understanding Ultrasound Physics, 4th Edition</i>	S. Edelman	978-0-9626444-5-0/ESP, Inc.	2012
<i>Examination Review for Ultrasound: Abdomen & Ob/Gyn, 3rd Edition</i>	S. Penny	978-1975185480/ LWW	2022

*Accessible electronically through the Eskinid Biomedical Library with VUMC email [Diagnostic Medical Sonography - Allied Health Programs - VUMC - Research Guides at Vanderbilt University](#)

14. PROFESSIONAL DEVELOPMENT POLICY

Students are expected to take ownership of and responsibility for their professional education through self-directed learning. While the program provides sufficient resources to meet all curriculum objectives, students are encouraged to expand the boundaries of the curriculum by seeking additional educational opportunities to enhance professional knowledge and growth.

Most assignments will require the use of resources beyond those provided directly by the program. In addition, students are required to document **personal professional development activities**, a practice that parallels the **continuing medical education (CME)** requirements necessary to maintain professional certification.

Each student must submit documentation of the equivalent of **two (2) hours of professional development per clinical rotation**, for a total of **twelve (12) hours** prior to program completion. Professional development activities must be **directly related to diagnostic medical sonography** and may include, but are not limited to:

- Attendance at live or virtual educational programs approved for CME
- Completion of self-directed learning activities relevant to sonography
- Successful completion of an ARDMS certification examination once eligible

Students are responsible for ensuring accurate and complete documentation of each professional development activity. Each student will be enrolled in the Professional Development course within Canvas, which will provide multiple options for recording and submitting professional development activities. All submitted documentation will be maintained as part of the student's official educational record.

Approved Continuing Medical Education (CME) activities for sonographers are an excellent means of enhancing and expanding professional knowledge. Participation in CME activities demonstrates discipline, professionalism, and a commitment to lifelong learning and career development. **Any activity accepted by the American Registry for Diagnostic Medical Sonography (ARDMS) is acceptable** for fulfillment of this program requirement.

ARDMS provides a comprehensive and up-to-date list of **accepted CME sponsors**, which students are encouraged to consult when selecting professional development activities:

- **ARDMS Accepted CME Sponsors:**
<https://www.ardms.org/maintain-certification/cme/ardms-accepted-sponsors/> [ardms.org](https://www.ardms.org/)

Students are encouraged to review this resource regularly to ensure that selected activities meet ARDMS standards and program requirements.

[ARDMS CME Providers](#)

Presentations

Students will be invited to and notified of available live and virtual presentations offered at VUMC. These presentations may be scheduled outside of assigned class or clinical hours. Hours attended at these non-program-sponsored presentations do not apply toward the hours required by the Attendance Policy. Professional development presentations sponsored by external organizations may include, but are not limited to, conferences, workshops, lunch-and-learn sessions, or webinars.

Self-Directed Learning Activities

A variety of self-directed learning activities are available through approved CME sponsors. These activities may include online learning modules, review of peer-reviewed journal articles, or viewing pre-recorded educational presentations, and may require completion of a post-test or knowledge assessment.

Although many CME sponsors charge a fee to obtain official CME credit, students may often complete the educational content prior to purchasing the credit. Completion of the learning activity itself may be used to satisfy the program's professional development requirement, provided appropriate documentation is submitted.

Certification Exams

Students in the DMS Program are eligible to apply for and take certification exams prior to graduation. For each certification exam passed, three (3) CME will be recorded in the student's educational record. This requires submission of a copy of the certification results document for each exam. Students will reach eligibility for the following exams at the designated time frame:

- *Sonography Principles and Instrumentation (SPI)*: upon completion of all Physics coursework (mid-term of Rotation III- mid May of first year)
- *Abdomen Sonography (Ab specialty exam)*: application within the last 60 days of the Academic Calendar
- *Obstetrics/Gynecology Sonography (Ob/Gyn specialty exam)*: application within the last 60 days of the Academic Calendar

15. STUDENT HEALTH POLICY

Standards outlined in the program admission section of the CPiAH Catalog related to Physical Activity Standards, Intellectual and Emotional Standards, and Immunizations and Health Records apply to students throughout their enrollment in the program. Please refer to the Catalog for additional information.

16. ATTENDANCE POLICY

Students are expected to be present and punctual for all didactic, laboratory, and clinical course hours. The Academic Calendar and published Rotation Schedules provide sufficient breaks and planning windows for personal activities. Students are strongly encouraged to plan accordingly. While unforeseen and unavoidable absences may occur, consistent attendance is essential to successful program completion.

Attendance Standards

- Total assigned clock hours will not exceed 40 hours per week.
- Student presence during all scheduled hours is essential to the learning process.
- Attendance is recorded daily, monitored regularly, and calculated monthly.

- Didactic and Lab courses require full attendance to receive credit; tardiness is tracked and monitored.
- Clinical attendance is calculated in one-tenth (1/10) hour (6-minute) increments. Students must be present for the entire increment to receive credit.
- A late arrival greater than six (6) minutes constitutes an episode of tardiness.
 - Excessive tardiness may result in grade reduction, advisement, disciplinary action, or dismissal.
 - Make-up hours do not negate or remove a recorded tardy.
- Cumulative clinical absences may not exceed six (6) days (48 hours) for the entire program, equivalent to one day per rotation.
- Attendance records are maintained as official program documentation in each student's academic record.

ATTENDANCE RECORDING AND COURSE GRADING

Didactic and Lab Courses

- Attendance is recorded by the instructor in the Learning Management System (Canvas).
- Tardiness and/or absences may impact the course grade.
- Grade impact calculations and thresholds are determined by the instructor and clearly stated in each course syllabus.

Clinical Courses

- Attendance is recorded by students using the approved electronic system (Trajecsys).
- Monthly attendance calculations are completed by the Clinical Coordinator based on assigned shift times.
- Three (3) tardies within the same rotation result in a clinical grade reduction, as specified in the course syllabus.
- Absences exceeding the equivalent of one (1) clinical day (8 hours) within a single rotation:
 - Result in a clinical grade reduction, as defined in the syllabus; and
 - Require documentation of the absence.
- Make-up of clinical hours is required only when cumulative absences exceed six (6) total days (48 hours) across the program.

ABSENCE NOTIFICATION PROCESS

- Planned absences:
Students must notify the Program Director and the applicable Instructor and/or Clinical Coordinator in writing and include an Outlook calendar invitation for the anticipated date.

Unplanned or immediate absences (within 24 hours):

- Students must notify the Program Director and the applicable Instructor and/or Clinical Coordinator via text message or other approved method identified in the course syllabus.
- Notification should occur before the scheduled activity when possible.
 - In emergencies, notification must occur as soon as it is safely possible.
- A follow-up email is required after any text or verbal notification.
- Students are responsible for contacting faculty or the Clinical Coordinator to confirm make-up expectations and requirements.

CLINICAL ASSIGNMENT REQUIREMENTS

Students must:

- Record attendance as instructed

- Maintain punctuality
- Late arrival or early departure exceeding 30 minutes requires notification to:
 - The Clinical Coordinator, and The Clinical Site (via phone call and/or text).
- Late arrivals and early departures negatively impact attendance calculations.

Meal breaks:

- Are 30 minutes for clinical assignments exceeding four (4) hours
- Are coordinated with the supervising sonographer
- Require prompt return by the student

Extended Absences

An extended absence is defined as three (3) or more consecutive school days. Students must notify the Program Director as soon as possible when an extended absence is anticipated or occurs.

An extended absence requires:

- Written documentation to the Program Director that clearly supports the need for the extended absence.
- If the absence is due to illness, the documentation must include a written release from the healthcare provider authorizing the student to return to school/work.

While extended absences may sometimes be unforeseen and unavoidable, repeated extended absences will be reviewed by the Program Director and may result in disciplinary action or student withdrawal.

Any extended absence that remains undocumented after one (1) week is considered a violation of program policy and will be referred for review under the Program's Disciplinary Action Policy.

Any absence exceeding three (3) consecutive days without notification to the Program Director may result in the student being considered withdrawn from the program. Please refer to the Student Withdrawal Policy for further guidance.

Travel and Commute

Each student is responsible for maintaining reliable personal transportation to and from all classroom and clinical assignments. As outlined in the Attendance Policy, students are expected to arrive on time for all scheduled activities.

Students who choose to reside outside the Metro Nashville area, or who are assigned to a clinical affiliate located outside the Metro Nashville area, are solely responsible for all travel time and associated expenses. Travel time must be planned and completed prior to the scheduled start of the clinical assignment.

Failure to account for travel time does not excuse tardiness. Please refer to the Attendance Recording Procedures for additional information regarding tardiness and early departures from clinical assignments.

Weather

There may be occasions when severe weather conditions create unsafe travel conditions. When weather is severe enough that the risk to student safety outweighs the benefit of attendance, CPIAH

may cancel classes and/or clinical experiences. Any sessions that are cancelled will be rescheduled as make-up sessions or alternate schedule adjustments may be substituted (i.e., virtual class instead of clinical).

Students are encouraged to use their own judgment regarding personal travel during inclement weather to ensure their individual safety. If program activities are not cancelled, but a student determines that it is unsafe to travel to campus or a clinical site due to weather conditions, the student will be offered the opportunity to make up any missed hours, in compliance with the Attendance Policy.

17. Make-Up Policy (Clinical/Lab/Didactic Coursework)

MAKE-UP POLICY

Make-up assignments and/or hours are required when absences exceed the established Attendance Standards.

Didactic and Lab Courses

- Make-up opportunities are at the instructor's discretion.
- Procedures are:
 - Published in the course syllabus, and
 - Posted in the LMS (Canvas).

Clinical Courses

- Absences beyond one (1) day (8 hours) in a single rotation affect the course grade but do not require immediate make-up, unless:
 - The student's cumulative clinical absences exceed six (6) days (48 hours).
- Once the six-day cumulative threshold is exceeded:
 - All additional missed clinical hours must be made up.
- Students must:
 - Request make-up hours through the Clinical Coordinator and Clinical Site
 - Obtain approval before scheduling make-up assignments
- Make-up shifts:
 - May occur during evenings, nights, or weekends
 - Are considered assigned clinical hours once approved and must meet all Attendance Standards
- Missed hours do not reduce or alter clinical competency, challenge, or evaluation requirements.
- All competency and challenge assignments remain required each rotation.
- Requests for additional hours to complete competencies or for anticipated absences are evaluated case-by-case.

PROGRAM RESPONSIBILITIES

- Deliver all required curriculum content and scheduled hours
- Adjust schedules due to inclement weather, public health restrictions, or unscheduled institutional closures
 - Adjustments may occur virtually and/or outside the routine schedule
- Ensure content and required hours are not reduced, preserving curriculum integrity

STUDENT RESPONSIBILITIES

- Comply with all Attendance Standards
- Adhere to Make-Up Policies for any applicable absences
- Obtain approval before scheduling make-up clinical assignments
- Understand that failure to meet attendance or make-up requirements may result in:
 - Disciplinary action
 - Delayed program completion
 - Dismissal

The maximum allowable time to complete all program requirements is nine (9) months beyond the program completion date established at enrollment (150% of program length). Failure to meet attendance and make-up requirements within this timeframe will result in dismissal.

18. LEAVE OF ABSENCE POLICY

A student may request a leave of absence from school for any reason (personal, medical, pregnancy/maternity, etc.), but all leave requests are subject to the approval of the Program Director. The student must submit a written request to the Program Director, outlining the nature of the requested leave and providing the starting and ending dates. For medical leave of absence, proper documentation of the medical condition is required as part of the review of the leave request, and medical clearance will be required for the student to return to program activities.

Prior to leave, a plan for re-entry into the curriculum and meeting requirements for graduation will be mutually developed by the Program Director and the student. Details of the plan will be written, signed by all parties, and retained as part of the student's record. Depending on the length of the leave, the student may be required to repeat clinical or didactic experiences to ensure competence has been established. Depending on the length of time of the leave the student may have a different program completion date than his/her classmates.

In the event a student is unable to return from leave within the prescribed period and was in good academic standing when he or she went on leave, the program may ask the student to withdraw and may elect to offer the student a position in the next cohort. The student will be required to repeat ALL clinical assignments/competencies. However, credit for previously completed didactic coursework may be awarded at the discretion of the Program Director.

Under NO circumstances will a student be permitted to complete the program requirements in more than an additional nine (9) months beyond the student's original anticipated completion date (150% of the program's length).

Compassionate Leave

Three (3) school days of compassionate leave may be provided with proper documentation of the death of an immediate family member, including:

- Spouse
- Child, grandchild, or other dependent
- Parent or Parent-In-Law
- Grandparent
- Sibling

The Program Director will work with the student to determine a feasible plan to make up content and hours missed while on Compassionate Leave.

19. CLINICAL SUPERVISION POLICY

Clinical supervision is a collaborative responsibility between the clinical site and the student. Supervision needs may change as each student demonstrates competency in certain areas of study. While some clinical sites may require direct supervision of students at all times, others may not. The following parameters are the minimum level of supervision required by the Program:

Direct Supervision

Direct supervision is defined as having a sonographer in the room monitoring all student activities and scanning techniques. Direct supervision is required in the clinical setting for students who have not met the following criteria: 70% of technical competencies assigned **AND** successful completion of the relative competency challenge.

Direct supervision is required in the clinical setting for students in any of the following situations:

- Portable exam
- Intraoperative exam
- Invasive or Sensitive Exams/Procedure (this includes transvaginal, breast and scrotum exams)

Indirect Supervision

Indirect supervision is defined as having a sonographer available to the student in the department while performing an exam. Indirect supervision may be utilized once a student has demonstrated minimum competency by the successful completion of the relative competency challenge. During all clinical assignments, a staff sonographer **MUST** always scan behind the student to ensure adequate diagnosis for the patient and interpreting physician.

20. Clinical Preceptor Survey Policy

Students are required to request a clinical preceptor survey weekly. At the end of each week's clinical assignments, the student must identify the preceptor he/she performed the most exams with throughout the week. Prior to the start of each Rotation, students will be provided a template request with the link to an appropriate survey for each designated Rotation. It is the student's responsibility to email the survey request to the identified preceptor and copy the Program Clinical Coordinator on the message. Failure to adhere to this process will be considered a deficiency in professionalism and therefore will adversely impact the clinical course grade.

The clinical preceptor survey will assess the student's affective, cognitive, and psychomotor skills in a progressive manner. These electronic surveys are monitored regularly and reviewed by the Program Clinical Coordinator together with the student at least once during each Rotation. Any deficiencies identified will be reviewed with the student on a more frequent basis to permit behavior modification. Failure to improve survey scores will result in adverse actions, according to the policies outlined in this handbook.

21. CLINICAL EDUCATION PLAN

The Clinical Education Plan outlined below is divided into two (2) sections of required clinical performance evaluations:

1. Technical Competencies are defined as unique skill sets which must be performed in repetition with appropriately credentialed clinical staff (preceptors). Variable levels of assistance are permitted, but must meet the minimum requirements identified in the Technical Evaluation Criteria table. The Technical Competency list provides a pathway for progressive skill development from basic patient care and portions of abdominal, gynecological, and obstetrical exams to complete exams and advanced imaging skills.
2. Technical Competency Challenges are defined as graded evaluations for satisfactory performance of entry level skills defined in the Technical Competencies. Technical Competency Challenges may only be completed with designated, appropriately credentialed clinical staff (Clinical Instructors). Minimal levels of assistance are permitted and are identified in the Technical Evaluation Criteria table. Technical Competency Challenges MUST be requested in advance of the patient's arrival to the exam room and only after 70% of assigned Technical Competencies are satisfactorily completed. Entry level skills and competency are determined in the last Rotation of clinical coursework through the Final Competency Assessment with designated, appropriately credentialed Clinical Instructors.

The number of repetitions for each assigned competency that needs to be correctly performed is listed in parenthesis below. The student will assume responsibility for determining readiness and will arrange with the clinical preceptor to evaluate her/his technical performance.

Specific deadline dates for completing the required number of correct technical competencies are specified in each clinical syllabi.

	<u>Technical Competencies</u>	<u>Number of Repetitions</u>
Clinical I	Basic Competency	
	Basic Patient Care	(10)
Clinical II and III	Segmental Imaging	
	Aorta/IVC	(10)
	Liver	(10)
	Gallbladder	(10)
	Pancreas	(10)
	Renals	(10)
	Spleen	(10)
	Pelvis-UT	(10)
Pelvis-OV	(10)	
Clinical III and IV	Segmental Imaging	
	Fetal head	(10)
	Fetal extremities/spine	(10)
	Fetal abdomen	(10)
	Placenta, Cord, and Amniotic Fluid	(10)

	Fetal heart	(10)
Clinical IV, V and VI	Complete Ab/Gyn	
	Complete Abdomen	(25)
	<ul style="list-style-type: none"> • Minimum of 3 technically difficult exams required • Minimum of 5 patients with some form of pathology identified 	
	RUQ (or additional complete abdomens)	(10)
	Pelvis w/Transvaginal	(20)
	<ul style="list-style-type: none"> • Minimum of 2 post-menopausal exams required • Minimum of 5 patients with some form of pathology identified 	
Clinical V and VI	Complete Ob and Superficial Imaging	
	1 st Trimester OB	(10)
	Fetal Size/Growth and Detailed Anatomy	(10)
	Fetal Anatomy	(10)
	Survey and Fetal Size/Growth	(15)
	<ul style="list-style-type: none"> • Minimum of 3 exams >28weeks gestation required 	
	Thyroid	(10)
	<ul style="list-style-type: none"> • Minimum of 2 patients must have some form of pathology identified 	
	Scrotum	(10)
	<ul style="list-style-type: none"> • Minimum of 2 patients must have some form of pathology identified 	
Clinical VI	Advanced Imaging	
	Biophysical Profile	(5)
	Multiple Gestation OB	(2)
	Abdominal Doppler	(3)
	U/S Guided Procedures	(2)
	<ul style="list-style-type: none"> • Minimum of 1 procedure must be a thoracentesis 	
Vascular Imaging Progressions (Active Observation, Direct Assistance, and Direct Supervision)		
	Carotid	(3)
	Lower Extremity Venous	(3)
	Upper Extremity Venous	(3)

In addition to achieving the required technical competencies listed previously, the student is required to pass Technical Competency Challenges during each clinical practicum to document progressive entry level skill development and complete satisfactory clinical requirements. Once the student has achieved a minimum of 70% of the required total number of repetitions for each technical competency, he/she may request to perform a competency challenge for the specified competency.

If the student is not successful during the challenge, he/she must complete additional repetitions of one or more competencies, and consult with the program director, before repeating the challenge. Two unsuccessful attempts to challenge a technical competency will result in academic probation and the Diagnostic Medical Sonography Program Handbook – 2026-27

implementation of a written plan of action required for the student to return to satisfactory academic status.

Technical Competency Challenges are required and will affect Clinical course grades if not completed by the date specified in each clinical syllabi. The required Technical Competency Challenges are:

- Clinical I Basic Competency**
One (1) Basic Patient Care competency
- Clinical II Segmental Imaging**
Any two (2) segmental abdominal and/or gynecological competencies
- Clinical III Segmental Imaging**
Any five (5) remaining segmental abdominal/gynecological competencies
Any one (1) segmental obstetrical competency
- Clinical IV Segmental and Complete Exam Imaging**
The remaining one (1) segmental abdominal/gynecological competency
The remaining four (4) segmental obstetrical competencies
- Clinical V Complete Exam Imaging**
Any one (1) complete:
Abdomen
Pelvis with Transvaginal
Obstetric (combined Fetal Anatomy with Survey and Fetal Size/Growth)
- Clinical VI Complete Exam Imaging**
Final Competency Assessment (entry level proficiency in abdominal, gynecological, and obstetrical exam techniques)
One (1) Thyroid competency
(may be completed after study in Clinical IV)
One (1) Scrotum competency
(may be completed after study in Clinical IV)

NOTE: Each technical competency and technical competency challenge is a separate exam requirement. A successful technical competency challenge does not substitute for any of the assigned technical competencies.

22. Procedures for Clinical Technical Competencies and Technical Competency Challenges

Students are required to complete all assigned technical competencies and technical competency challenges to receive a Certificate in Diagnostic Medical Sonography from VUMC.

Technical competencies are obtained through observation by appropriately credentialed clinical staff (preceptors). While it is most ideal for a student to indicate the desired scanning competency to be observed prior to an exam, this may not always be possible. Once an exam has begun, an appropriate

learning opportunity may present for an additional or different technical competency to be completed with the preceptor. Every opportunity to scan and learn should be maximized between the student and the preceptor. Immediately following any scanning time, the student is responsible for communicating with the preceptor to obtain: 1) feedback on techniques and 2) appropriate signature(s) indicating successful achievement of one or more technical competencies on the designated competency log.

The student may request a challenge evaluation when a minimum of 70% of the assigned technical competencies are completed and the student feels prepared to demonstrate his/her technical skill in that area. The assigned technical competency challenges are identified in the master Clinical Education Plan, as well as the syllabus for each clinical rotation. Technical Competency Challenges may be completed with designated and appropriately credentialed Clinical Instructors (a list is provided with Clinical Orientation). ***While students may request challenges at any time, it is not advisable to wait until the last week of the Rotation to do so. There may be no appropriate patients scheduled, patients may not show for appointments or designated clinical instructors may be with other students or unavailable at the time requested.***

Once a student feels prepared to be evaluated for an assigned competency challenge, the following procedure **MUST** be adhered to or the challenge will be terminated or voided.

1. Notify the Clinical Instructor (CI) of the challenge request, identifying the type of challenge being requested AND the scheduled time for the selected patient. The CI will indicate availability or provide direction on what to do next.
2. Complete the following forms and have documents ready upon patient arrival*:
 - a. Challenge evaluation form—evaluation page found in the clinical challenge manual with the top section completed to officially request the challenge
 - b. Competency log demonstrating complete documentation of 70% of assigned competencies

*ALL of these forms MUST be completed and provided for the evaluator to review PRIOR to beginning the exam. If any document is not prepared or complete, the challenge will be terminated.

The Clinical Instructor reserves the right to terminate a challenge evaluation at any time for any reason.

23. Technical Competency and Challenge Evaluation Criteria

The student is required to demonstrate skill progress through repetitions of required technical competencies. The student's performance will be evaluated based on correct performance of the technique in a progressively independent manner. After completing 70% of the required competencies, the student will assume responsibility for determining readiness and will arrange with a designated Clinical Instructor to evaluate his/her technical performance through a Competency Challenge*. Deadlines for completing the required number of competencies and challenges are listed in the clinical syllabi and outlined in the Clinical Education Plan.

To receive a "Y" (Yes) on a technical competency the student must receive a **minimum competency score of 3** for the degree of assistance needed on each technical competency. To receive a "Pass" on a competency challenge, the student must receive a **minimum score of 80** on each of the critical behaviors within the competency.* Below is the key for scoring critical behaviors.

Competency Score	Level of Assistance	Criteria	Level of Performance	Challenge Score
1	None	Independently performs optimal techniques; performs appropriate imaging per protocol with no errors in the demonstration of anatomy or pathology; displays professional interaction with the patient, patient's family and the health care team	Superior	100
2	Minimal	Performs optimal techniques with assistance only in technically difficult situations; performs appropriate imaging per protocol with no critical errors** in the demonstration of anatomy and pathology; displays professional interaction with the patient, patient's family and the health care team	Above Average	90
3	Occasional	Performs adequate imaging techniques but needs to continue improvement of image optimization techniques; performs appropriate imaging per protocol with no critical errors** in the demonstration of anatomy and pathology; displays appropriate interaction with the patient, patient's family and the health care team	Minimal	80
4	Significant	Needs assistance to perform basic imaging technique; demonstrates a poor knowledge of imaging protocol and has difficulty recognizing normal anatomical structures and pathology; displays poor judgment in the interaction with the patient, patient's family and/or the healthcare team	Below Average	70
5	Heavy	Performance of basic imaging technique is grossly inaccurate; does not demonstrate any knowledge of imaging protocol and is unable to recognize normal anatomy or pathology; displays inappropriate interaction with the patient, patient's family and/or the healthcare team	Poor	60

*The Clinical Instructor has the authority to deem the selected exam too difficult for the stage in the student's education or beyond entry level expectations.

**Critical errors include, but are not limited to: 1) omission of findings previously identified in imaging studies; 2) findings easily visible within imaging techniques but not recognized or demonstrated by the student (i.e.; $\geq 1\text{cm}$ in size); 3) failure to correlate clinical/imaging to current exam.

24. PREGNANCY AND SAFETY IN THE CLINICAL ENVIRONMENT

Given potential risks unique to the pregnant student, any enrolled student or applicant who is pregnant or becomes pregnant should notify the Program Director, in writing, as soon as possible.

Pregnant students are required to complete normal program activities, although accommodation will be made to the degree feasible for the program and the institution. The program may request that a pregnant student provide documentation from a medical provider that she is medically capable of performing required program activities and related physical tasks, as outlined in this Handbook.

In keeping with the ALARA Principle (As Low As Reasonably Achievable) on the potential bioeffects of ultrasound, under NO circumstances should a pregnant student be scanned for fetal imaging unless it is a medical procedure ordered by her medical provider.

25. PROGRAM ULTRASOUND LAB USE

The VUMC DMS Program maintains a dedicated ultrasound lab for student use. While this lab is designed to facilitate the acquisition of technical skills for the student, it is a valuable and limited resource and its use must be treated with the utmost respect.

The curriculum plan includes dedicated supervised lab time scheduled with an instructor present. Student scanning in the scheduled labs must be supervised by the Program Director, Clinical Coordinator, or a designated credentialed sonographer. The time of instructors supervising lab time is also a valuable and limited resource, and students are expected to be respectful of instructors' time by being adequately prepared for lab sessions and ready to perform procedures in a timely fashion.

During scheduled and supervised lab sessions students are encouraged to participate as the patient, but this participation is STRICTLY voluntary and is in no way required. Any refusal to volunteer as the patient will not affect the student's course grade. Students attest to their understanding of this policy through signing the Orientation Checklist at the beginning of their enrollment in the program.

On occasion, there may be slow times in the clinical setting that lend themselves to the practice of scanning skills. In these instances, the clinical instructor for the center may provide the necessary supervision. Any sessions of this type must have stated objectives and feedback provided by the supervising instructor. Written documentation (email from the supervising sonographer is acceptable) of these sessions should be provided to the Program Clinical Coordinator from the supervising sonographer. These ad hoc scanning sessions are restricted to exclude scanning of the fetus. Any mock scanning of the gravid uterus must be arranged by and under direct supervision of the appropriate faculty and/or staff.

Students may utilize the Scanning Lab after hours (Open Lab) following these guidelines for reserving it, and policies for its use.

Open Lab Guidelines

To utilize open lab hours please follow these step-by-step instructions

1. Check the shared excel spreadsheet* to see what dates and times are available.
 - a. The spread sheet can be accessed through the QR code (provided separately) or through the email invitation.
2. Once you confirm availability through the excel spreadsheet, please fill out the Microsoft forms*.
 - a. The form can be accessed through the QR code (provided separately) or through the email invitation.
3. On the Form* you will need to fill out the following: Date and time you plan on utilizing open lab and your scanning objectives.

- a. Please use a window of time, not just a start time. Example: 9:00a – 10:00a. You may reserve a maximum of two-hour window. This will promote the ALARA principle and allow students to equally utilize open lab hours.
 - b. Please be specific on your scanning objectives. Example: Abdomen – focusing on the liver and gallbladder. Please stick to these scanning objectives only.
4. Once you fill out the Form* your response will sync to the excel spreadsheet. This will allow all students to see open availability real time with no fear of overlapping.

Open Lab Policies

- You are required to wear your ID badge while in the building.
- Please be courteous to your peers and be on time for your open lab hours and do not go over your time.
- Please respect our machine and space. Clean up after yourself, properly clean, properly power down, and unplug the machine. Double check to make sure the door is locked behind you and the key is put away properly in the lock box.
- Please save the exam you scan in your time frame. This ensures you are sticking to your scanning objectives and gives you and your faculty the ability to review your images together. Please review your images with your faculty during your next scheduled supervised lab session.
- Under no circumstances should a gravid uterus be scanned during open lab hours without a written doctor's note and direct supervision of the Program Director or Clinical Coordinator. This type of session **MUST** be arranged directly with staff before scheduling.

*Links to the Scheduling spreadsheet and the MS Form for documenting objectives will be provided via email and QR codes.

26. STUDENT CONDUCT/PROFESSIONALISM

All students are bound by several standards of conduct, as outlined in the CPIAH Catalog, including:

- VUMC Code of Conduct
- VUMC Center for Programs in Allied Health Honor Code
- SDMS Professional Code of Ethics

To ensure students clearly understand the behaviors that are expected/acceptable and unacceptable, the following examples are provided:

Maintain a high degree of honesty and integrity

- Hold in strictest confidence all patient and clinical center information
- Maintain patient modesty and privacy
- Provide optimum care for all patients
- Utilize proper communication techniques for patient education, response to patient needs, respect of patient individuality and collaborating with other healthcare team members in the learning and patient care processes
- Exhibit good judgement and critical thinking skills
- Adapt to each situation appropriately

- Seek out opportunities to assist fellow students, clinical staff or faculty
- Demonstrate a wise use of time

Accept responsibility for one's own actions and learning potential

- Maintain professional conduct and appearance during all program assignments
- Demonstrate motivation, enthusiasm, organization and efficiency in carrying out assignments
- Seek out all opportunities for increasing and retaining a progressive knowledge level
- Openly accept and follow instructions provided by faculty, sonographers, physicians and others in positions of authority and respond appropriately
- Adapt one's skill level to become an increasingly functional component of each clinical assignment and promote a pleasant environment
- Arrange for remedial assistance in areas of study where one has a lack of understanding
- Recognize professional and educational limitations while striving to expand them

Practice the art and science of sonography in a professional and ethical manner in order to promote the advancement of the profession

- Document all clinical experiences
- Practice Standard Precautions
- Practice techniques appropriate to verify patient identity prior to an exam
- Perform on-going self-evaluation to identify areas of strength and weakness
- Practice professional responsibility to learn and retain techniques for carrying out functions of the department
- Apply instruction and constructive criticism to practice
- Apply theory to practice
- Utilize all available resources
- Complete all didactic and clinical assignments within the designated time frame
- Practice the ALARA Principle (As Low As Reasonably Achievable)
- Pursue completion of certification exams promptly upon eligibility

Engage in behaviors that are hallmarks of a professional, keeping mind that your actions are seen by peers and other witnesses

- Demonstrate respect and resist participation in criticism for all individuals in the healthcare setting including, but not limited to, faculty, clinical staff, physicians, fellow students, patients and patients' families
- Refrain from using foul or abusive language
- Avoid personal contact unless necessary for safety or the continuity of patient care
- Notify the Clinical Instructor or Program Director of patient complaints
- Report any injury, regardless of severity, promptly to the Clinical Instructor and Program Director
- Respect the property of the Medical Center and other individuals

27. Disciplinary Action Policy

Any student behavior or academic performance in violation of any policy of the Vanderbilt University Medical Center, the Center for Programs in Allied Health or the Diagnostic Medical Sonography Program is subject to disciplinary action, up to and/or including dismissal. Disciplinary action will be utilized in a progressive manner, as follows:

- **Verbal Warning-** Upon a first violation, a conversation will take place between the student and Program Director, Clinical Coordinator, and/or appropriate Faculty to discuss the situation and appropriate corrective measures. (Notation of this advisement will be retained in the student's record.)
- **Written Warning-** In the event of a second violation, another conversation will be held about the incident between the student, Program Director, Clinical Coordinator or appropriate Faculty, and a third Program/Center representative. This report will outline an Action Plan including, at minimum, the following information: *infraction, discussion, implications of the behavior, corrective measures and future disciplinary action for any repeated incident of this nature*. This written documentation will be signed by all individuals present and retained in the student's record. Follow-up conversations may be necessary to determine academic progression. All follow-up conversations will be documented in writing.
- **Probation-** Upon a third violation, a student who has received both verbal and written warnings regarding inappropriate conduct will be placed on probation. The probationary period length will be, at minimum, the remainder of the current Rotation and no longer than six (6) months. The student will meet with the Program Director about and be notified in writing of the terms of the probation. A copy of this report will be retained in the student's record. If at the end of a period of probation, a student has adhered to terms of the probation and otherwise satisfactorily adhered to institutional and programmatic policies, he or she may be released to good standing. Documentation related to the probation will remain as a permanent part of the student's record.
- **Temporary Suspension** – The Program reserves the right to temporarily suspend a student for conduct creating a threatening or disruptive learning environment, as determined by the Program Director. The student's situation will be reviewed according to the Disciplinary Action Policy. The Program Director will notify the student in writing of the conditions of the temporary suspension. If the student is reinstated, the student will work with the Program Director to address any course work missed during the suspension.
- **Dismissal-** A student who does not meet the terms of probation within the specified timeline will be dismissed from the program.

The Program Director provides written notification including the dismissal effective date if a student is dismissed from the program. The dismissed student is required to immediately return all property of VUMC (keys, ID badges, etc.) to the Program Director. Students who are dismissed from the program may be entitled to a partial tuition refund. Please refer to the CPiAH Catalog for more information. The Dismissal Appeal Process is also described in the CPiAH Catalog.

28. FACULTY ADVISING POLICY

Student academic and clinical performance evaluation takes place in an ongoing basis throughout each rotation. Classroom performance is evaluated through attendance, assignments and exams. Clinical performance is also evaluated through supervising staff weekly evaluations, student weekly reports, clinical competencies and competency challenges. Weighting of each evaluation method will be defined in each course syllabus.

Each student receives faculty advising regarding progress through the Curriculum Plan. Advising occurs in a private and individual manner for each student. Faculty advising sessions occur periodically, but no less frequently than once per Rotation. If a student is in jeopardy of being placed on or is placed on academic or conduct-related probation, faculty advising sessions will occur on a more frequent basis. Advising sessions may be requested at any time by the student or by faculty members.

Each student enrolled in the program has access to faculty and staff members for academic and professional advising. The Program Director is the primary source for this type of student advising; however, the student may approach other faculty members, clinical instructors or staff of the VUMC Ultrasound and/or Radiology Department. Other CPiAH Staff are also available by appointment to assist students as necessary.

29. EVALUATION OF PROGRAM EFFECTIVENESS

The DMS Program utilizes various methods for evaluating the program's effectiveness. Student feedback on the program and courses is routinely gathered through the use of online surveys utilizing the REDCap program. Students should expect routine requests to complete these important surveys throughout their time in the program. Candid feedback is strongly encouraged. Formal grievances, however, should be appropriately communicated through the Grievance Policy and not program/course surveys.

Course and Faculty Evaluation

Evaluation of faculty performance by the Program Director is conducted periodically, as necessary. Evaluations are made of teaching effectiveness, organization, and accessibility. Student course evaluations provide important feedback for assessing faculty performance.

Clinical Site Evaluation

Students have the responsibility to assist the program in monitoring the effectiveness of the clinical sites. Electronic surveys are distributed through REDCap for anonymous completion. Student input provides necessary feedback to enhance or improve the program's relationship with the clinical centers. This tool is also an excellent opportunity to recognize individual staff members for contributions to the educational experience.

Program Resource Evaluation

The Diagnostic Medical Sonography Program conducts two (2) student surveys regarding program resources and effectiveness during each student's enrollment. These surveys are necessary at various milestones within the curriculum to assess whether the needs of the students are being met throughout the educational experience. While these surveys may seem similar to other program surveys, they serve a different purpose, and each survey collects important information used by the program for its continuous improvement. Candid feedback is encouraged to assist in programmatic review and ongoing improvement.

The VUMC Center for Programs in Allied Health (CPiAH) conducts one student satisfaction survey annually for all VUMC CPiAH students. Sonography students are responsible for providing appropriate information and feedback in this institutional survey.

Graduate and Employer Surveys

The Diagnostic Medical Sonography (DMS) Program accreditor, CAAHEP, requires reporting of outcomes and achievement of designated benchmarks. Feedback from graduates and their employers within the first year of graduation is a valuable tool in program assessment. These surveys and the feedback serve dual purposes: 1) accreditation outcomes are assessed for survey return rates and 2) the feedback provides the DMS Program Advisory Committee with necessary information to keep the program in tune with the communities of interest. Graduates will be expected to provide necessary information to enhance or improve the program for future students. Additionally, graduates are strongly encouraged to convey the importance of the survey with feedback to his/her employer. Graduate and employer surveys are carried out electronically by emailing a REDCap Survey link.

30. DRESS CODE and PERSONAL APPEARANCE

Students are required to dress in an appropriate professional manner, in keeping with VUMC institutional dress code. Personal appearance for any program activities or assignments must include:

- Identification badges are worn in clear sight at the neckline/collar level with name, title, and picture clearly visible.
- Clothing is well-fitting, clean, and free of holes, tears or other signs of wear
- Clothing is not tight, sheer, or revealing (leggings allowed if worn with attire that is mid-thigh in length)
- Tops are not backless, midriff, strapless, off the-shoulder, or spaghetti strap
- Dresses, skirts, or skorts must be at least mid-thigh in length
- No shorts or jeans of any kind are permitted, denim or colored
- No sports attire (e.g., athletic sportswear, including hoodies), unless part of unit approved VUMC uniform
- Clothing is not obscene, commonly associated with gangs, extremists, and/or supremacist organizations, or advocates for sexual, racial, ethnic, or religious discrimination
- Clothing does not restrict proper handwashing technique (e.g., thumb shirts/sweaters)
- Closed toe shoes, clean and in good condition
- Hair is clean and contained in such a manner that it does not come in contact with the patient or visitors.
- Hats, caps, bandanas, hair bags/shower caps are not worn when in buildings unless for medical condition, safety purposes, or established religious customs
- No heavy perfume, cologne, scents
- Jewelry must be limited to one ring or wedding set, one functional watch (**for smart watch information, see Cell Phone Use Policy**)
- No visible tattoos on face; no other visible tattoos that are obscene, commonly associated with gangs, extremists, and/or supremacist organizations, or that advocate sexual, racial, ethnic, or religious discrimination
- No visible body piercing/jewelry except for ears/nose with simple (i.e., stud or tiny) earrings
- Fingernails are kept clean and no longer than 1/16 inch from fingertip. Fingernails of the appropriate length are barely visible when viewed from the palm surface of the hand. Artificial nails are prohibited for individuals with direct patient care responsibilities. Artificial fingernails include, but are not limited to, acrylic nails, all overlays, tips, bondings, extensions, tapes, inlays, and wraps. Nail jewelry is not permitted. Nail polish, if worn, is well maintained. Chipped nail polish is not allowed.
- Reasonable accommodations can be made for medical and or religious/spiritual/deeply held personal beliefs unless such accommodations pose a risk to the safety or health of the individual or others

Student dress in the clinical setting must demonstrate a neat and clean appearance to convey a professional appearance to patients, visitors and co-workers. Student clinical attire must consist of the following:

At Most VUMC Clinical Centers

- Scrub top and pants or dress/skirt in Pewter color only.
 - Any visible clothing worn underneath a scrub top **MUST** be solid and white or of same color as the scrub top/pants.

At The Center for Women's Imaging (CT/OHO)

- Black slacks/scrub pants (ankle length at minimum)
- CPiAH polo shirt (provided)

Failure to adhere to the Dress Code and Personal Appearance requirements may result in temporary suspension from the program activity or assignment for the remainder of the day. Additional disciplinary action may be engaged, depending on the infraction. Any time missed must be made up per the Make-Up Policy.

31. CELL PHONE USE POLICY

Professional conduct is an essential expectation of all students in the Diagnostic Medical Sonography Program and reflects the standards of the healthcare profession. Accordingly, **personal electronic device use is prohibited** during classroom instruction, laboratory sessions, and all clinical experiences.

All personal devices—including cell phones, smart watches, tablets, and other handheld electronics—**must be powered off or fully silenced (including vibration mode) and stored out of sight** during scheduled classes, labs, and clinical assignments.

Limited use of cell phones or smart watches is permitted only during designated breaks or between patients and must not interfere with patient care, student learning, professional communication, clinical workflow, or the learning environment. Device use that disrupts patient interactions or professional engagement is unacceptable.

Failure to adhere to this policy constitutes a breach of professional behavior and will be documented as a professionalism deficiency. Such violations may result in grade penalties, clinical consequences, or disciplinary action, in accordance with program and institutional policies.

Students are reminded that use of personal electronic devices—even for educational purposes—may be perceived by faculty, peers, patients, or clinical staff as disengagement or lack of professionalism. Students are expected to exercise sound judgment at all times, including during down time and breaks, to avoid real or perceived unprofessional conduct.

Clinical education sites reserve the right to restrict or prohibit student use of electronic devices at any time based on site policies, patient safety considerations, or operational needs. Students are required to comply fully with all clinical site expectations.

32. OUTSIDE EMPLOYMENT

Due to the complex content and intense time commitment associated with the curriculum of the program, students are encouraged to limit outside employment. Any employment and work hours required for the student to maintain an income may not interfere with the completion of his/her academic and clinical assignments.

DISCLAIMER: Students who gain employment in a sonography-related position at VUMC or any other medical facility while enrolled in the DMS Program are in no way acting under the supervision of the program while carrying out responsibilities related to their employment, and they will not receive any clinical credit for examinations or hours performed while functioning as an employee. In addition, under no circumstances may a student stand in for a staff person as a preceptor or supervisor for a DMS Program student on clinical assignment. Students may not, under any circumstances, receive pay or compensation for clinical assignments. Students found in violation of this policy will be subject to disciplinary action, up to and including dismissal from the program.

33. ADDITIONAL EDUCATIONAL RESOURCES

Additional resources are available in professional development and curriculum courses on the LMS.

34. APPENDIX A

**APPENDIX A:
CURRICULUM THREADS**

VANDERBILT  UNIVERSITY
MEDICAL CENTER

Diagnostic Medical Sonography Program

Curriculum Threads

First Rotation

Didactic Courses:

Sonographic Patient Care
Foundations of Ultrasound and Healthcare (first two (2) weeks online delivery)
Cross-Sectional Anatomy
Abdominal Sonography Techniques I
Gynecological Sonography Techniques I

Clinical Courses:

Clinical Practicum I
Clinical Lab I

The first Rotation is the introduction to patient care techniques, cross-sectional imaging and the application of sonographic techniques for abdominal and gynecological exams. Students are also introduced to the sonography profession. The clinical practicum is correlated with the didactic courses by the performance of competencies that demonstrate student knowledge of the procedure and function of the ultrasound department. Prior to the performance of any assigned competencies, the student must complete a check-list of department functions with the clinical lab instructor under direct supervision. The student is given opportunities for patient contact and observation of sonographic procedures to permit the acquisition of the required basic competencies and competency challenge. The student should also demonstrate a recognition of sonographic anatomy and technique. The clinical lab is correlated with the didactic courses by demonstration and direct supervision/instruction of sonographic techniques related to abdominal and gynecological exams. The students are required to begin the development of the Education Portfolio to be maintained throughout the program.

The required basic **competencies** for Clinical Practicum I:

Basic Patient Care (10)

The required **competency challenge** for Clinical Practicum I:

Basic Patient Care

Second Rotation

Didactic Courses:

Foundations of Ultrasound and Healthcare (first two (2) weeks online delivery)
Obstetrical Sonography Techniques I
Basic Physics and Instrumentation
Pathophysiology as Related to Sonography

Clinical Courses:

Clinical Practicum II
Clinical Lab II

The second Rotation continues to explore professional topics while providing presentation and application of obstetrical sonographic techniques, basic physics and, pathophysiology. The clinical practicum is correlated with the didactic courses by the performance of competencies that demonstrate student knowledge of abdominal and gynecological exams. Competencies are broken down into organ segments to permit scanning clinical patients and progressive technical achievement within time allowed in the clinical setting. Students are given the opportunity to demonstrate abdominal and gynecological sonographic techniques and competency during clinical assignments. The clinical lab is correlated with the didactic courses by the demonstration and direct supervision/instruction of sonographic techniques related to obstetrical sonographic exams and continued performance of basic, abdominal and gynecological competencies.

The required segmental abdominal and gynecological **competencies** for Clinical Practicum II:

Aorta/IVC (10)
Liver (10)
Gallbladder (10)
Pancreas (10)
Renals (10)
Spleen (10)
Pelvis-UT (10)
Pelvis- OV (10)

These segmental ab/gyn competencies may be completed during Clinical Practicum III.

The required **competency challenges** for Clinical Practicum II:

Any two (2) of the abdominal and gynecological segmental competencies

Third Rotation

Didactic Courses:

Foundations of Ultrasound and Healthcare (first two (2) weeks online delivery)
Abdominal Sonography Techniques II
Gynecological Sonography Techniques II
Superficial Structures Sonography Techniques I
Advanced Physics and Instrumentation

Clinical Courses:

Clinical Practicum III
Clinical Lab III

The third Rotation continues to explore professional topics and provides presentation and application of pathology and its correlation to sonographic findings and techniques for abdominal and gynecological exams. The techniques included are anatomy and pathology of the head/neck, breast, male pelvis, musculoskeletal, abdominal wall, and non-cardiac chest. Physics is taken to a more advanced level to include the Doppler principle, QA and Bioeffects associated with diagnostic sonography. The clinical practicum is correlated with the didactic courses by the demonstration of progressively independent performance of abdominal and gynecological competencies. Students are given opportunities to demonstrate the progressive technical skill for abdominal and gynecological exams, in addition to segments of obstetrical examinations, by performing the required competencies. The clinical lab is correlated with the didactic courses by demonstration and direct supervision/instruction of sonographic techniques for performing complete abdominal and gynecological exams and the associated pathology protocols, along with the progression of skills for obstetrical exam techniques.

The required **competencies** for Clinical Practicum III:

Segmental Ab/Gyn

Completion of abdominal and gynecological segmental competencies

Segmental Ob

Fetal Head (10)
Fetal Extremities/Spine (10)
Fetal Abdomen (10)
Placenta, Umbilical Cord and Amniotic Fluid (10)
Fetal Heart (10)

The segmental ob competencies may be completed during Clinical Practicum IV.

The required **competency challenges** for Clinical Practicum III:

Any five (5) of the remaining abdominal and gynecological segmental competencies
Any one (1) obstetrical segmental competency

Fourth Rotation

Didactic Courses:

Foundations of Ultrasound and Healthcare (first two (2) weeks online delivery)
Obstetrical Sonography Techniques II
Superficial Structures Sonography Techniques II
Advanced Abdominal Sonography Techniques
Medical Ethics and Law

Clinical Courses:

Clinical Practicum IV
Clinical Lab IV

The fourth Rotation continues to explore professional topics and provides presentation and application of pathology and its correlation to sonographic findings and techniques for obstetrical exams. The application of superficial structure and advanced abdominal sonographic techniques is also presented. The techniques included are pediatric anatomy and pathology of the neonatal head, spine, hips, and GI tract. The clinical practicum is correlated with didactic courses by the performance of competencies based on segments of obstetrical examinations in a progressive and independent fashion, along with complete abdominal and gynecological examinations, to include transvaginal imaging of the female pelvis. The clinical lab is correlated with the didactic courses by opportunities for demonstration and performance of all imaging competencies under direct supervision/instruction including abdominal, gynecological, obstetrical and superficial structures.

The required **competencies** for Clinical Practicum IV:

Segmental Ob

Completion of the obstetrical segmental competencies

Segmental Ab/Gyn

Complete Abdomen (25)

Minimum of 3 technically difficult exams required

Minimum of 5 patients with some form of pathology identified

RUQ (10) or additional complete abdomens

Pelvis w/Transvaginal (20)

Minimum of 2 post-menopausal exams required

Minimum of 5 patients with some form of pathology identified

The complete ab/gyn competencies must be completed by mid-term of Clinical Practicum VI.

The required **competency challenges** for Clinical Practicum IV:

The remaining one (1) segmental abdominal or gynecological competencies

The remaining four (4) segmental obstetrical competencies

Fifth Rotation

Didactic Courses:

Foundations of Ultrasound and Healthcare (first two (2) weeks online delivery)
Certification Preparation (online delivery)
Advanced Obstetrical & Gynecological Sonography Techniques
Introduction to Vascular Sonography

Clinical Course:

Clinical Practicum V

The fifth Rotation continues to explore professional topics and provides presentation of techniques for advanced imaging of the gynecological and obstetrical exam which include biophysical profile, maternal disorders in pregnancy, genetic abnormalities, cervical measurements in pregnancy, ultrasound guided procedures and the performance of Doppler examinations in pregnancy. Didactic presentations also include information to prepare students for performing basic vascular studies. Students are required to begin review and preparation for national certification upon graduation. Required documentation of progress and activities will monitor students' preparation. The clinical practicum is correlated to the didactic courses through the performance of complete abdominal, gynecological, obstetrical, and superficial structure examinations demonstrating progressive technical achievement and competency. Students are also required to begin developing basic vascular sonography techniques by performing the assigned exams, documenting a progression of skills.

The required **competencies** for Clinical Practicum V:

Complete Ab/Gyn

Continued performance of complete abdomen and gynecological competencies

Complete Ob

Fetal Size/Growth and Detailed Anatomy (10)

Fetal Anatomy (10)

Survey and Fetal Size/Growth (15)

Minimum of 3 exams >28weeks gestation required

1st Trimester (10)

Superficial Structures

Thyroid (10)

Minimum of 2 patients must have some form of pathology identified

Scrotum (10)

Minimum of 2 patients must have some form of pathology identified

Breast (5)

Minimum of 2 patients must have some form of pathology identified

Vascular

Lower Extremity Venous (3)

Upper Extremity Venous (3)

Carotid (3)

The required **competency challenges** for Clinical Practicum V:

Any one (1) complete:

Abdomen

Pelvis with Transvaginal

Obstetric (combined Fetal Anatomy with Survey and Fetal Size/Growth)

Sixth Rotation

Didactic Courses:

- Foundations of Ultrasound and Healthcare (Capstone Presentation)
- Case Study Review
- Registry Review
- Basic Vascular Sonography
- Lab

Clinical Course:

- Clinical Practicum VI

The sixth Rotation provides an opportunity for students to demonstrate personal foundation for career development and the review of all information related to the abdominal, obstetrical/gynecological National Certification Exams. The students are also provided with an introduction to basic vascular sonography to include carotid and peripheral venous and arterial exams in the lab setting with the demonstration of technique. The clinical practicum is correlated to didactic courses by the demonstration of competency in the performance of complete abdominal, gynecological, obstetrical and superficial structure sonographic examinations. Entry-level competence is required for the advanced imaging techniques to include biophysical profile, multiple gestations, Doppler examinations and ultrasound guided procedures. Basic vascular sonography competency is demonstrated through the progressive demonstration of knowledge and skills in the assigned competencies, per the Clinical Education Plan. Each student is also required to demonstrate entry-level proficiency through the completion of the Final Competency Assessment. At the end of the Rotation, each student will participate in an Exit Interview with the Program Director to finalize all education documentation and review the Program's expectations for graduates.

The required **competencies** for Clinical Practicum VI:

Complete Ab/Gyn

Completion of complete abdominal and gynecological competencies by mid term

Complete Ob

Completion of all obstetrical competencies

Superficial Structures

Completion of superficial structure competencies

Advanced Imaging

Biophysical Profile (5)

Multiple Gestations (2)

Abdominal Doppler (3)

U/S Guided Procedures (2)

Vascular

Lower Extremity Venous (3)

Upper Extremity Venous (3)

Carotid (3)

The required **competency challenges** for Clinical Practicum VI:

Final Competency Assessment

One (1) Thyroid competency (may be completed after study in Clinical IV)

One (1) Scrotum competency (may be completed after study in Clinical IV)