

School of Diagnostic Medical Sonography



University of Wisconsin
Hospital and Clinics

PROGRAM HANDBOOK

Class of 2024

Revised August 2022
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INTRODUCTION

Welcome to the UW Hospital and Clinics School of Diagnostic Medical Sonography

UW Health is the integrated health system of the University of Wisconsin-Madison serving more than 600,000 patients each year in the Upper Midwest and beyond with approximately 1,750 physicians and 21,000 staff at seven hospitals and more than 80 outpatient sites. UW Health is governed by the UW Hospitals and Clinics Authority and partners with UW School of Medicine and Public Health to fulfill their patient care, research, education, and community service missions.

UW School of Medicine and Public Health is the nation's only combined school of medicine and public health. Its 1,750 faculty in 10 basic science and 17 clinical departments engage in research, education and clinical care at UW Health's clinic locations, University Hospital, American Family Children's Hospital, UW Health at the American Center, UW Health Rehabilitation Hospital, other Madison hospitals and approximately 80 regional locations.

UW Health is a nationally recognized regional health system that includes:

- University Hospital, a 505-bed regional referral center that is home to a Level One adult and pediatric trauma center, American College of Surgeons-verified Burn Center, one of the nation's largest organ transplant programs, one of the nation's first certified comprehensive stroke centers and the UW Carbone Cancer Center, one of 41 National Cancer Institute-designated comprehensive centers in the country
- UW Health at The American Center, a 56-bed, community-based health, and wellness facility
- American Family Children's Hospital, a nationally ranked, 111-bed facility with pediatric and surgical neonatal intensive care unit
- UnityPoint Health-Meriter, a 358-bed community-based hospital providing a complete range of medical and surgical services for residents of Dane county and surrounding communities. Learn more about the UW Health and UnityPoint Health-Meriter Partnership
- UW Health Rehabilitation Hospital, a 50-bed, post-acute inpatient rehabilitation facility
- A regional division that extends to Rockford, Illinois, and includes the 343-bed Swedish American Hospital, an associated 34-bed inpatient/outpatient medical center in Belvidere, Illinois, and regional cancer center in Rockford.

The University of Wisconsin Hospital and Clinics (UWHC) campus is the host site for the CAAHEP (Commission on Accreditation of Allied Health Education Programs) accredited School of Diagnostic Medical Sonography (DMS) Program that was started in 1980. The UWHC School DMS is affiliated with Carroll University, Edgewood College, Marian University, University of Wisconsin – Oshkosh, University of Wisconsin – La Crosse and the University of Wisconsin – Milwaukee to offer a baccalaureate degree and post-baccalaureate program in diagnostic medical sonography. Students complete their pre-requisite course work at their sponsor university, and their professional education at UWHC. Prospective students may apply to the Adult Cardiac Sonography / Vascular Sonography options or Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography educational programs.

Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography and Adult Cardiac Sonography / Vascular Sonography options include didactic and clinical instruction in the areas of abdomen, small parts obstetrics and gynecology, cardiac and vascular ultrasound in a format that integrates classroom teaching and practical experience. Laboratory demonstrations of equipment control operation and patient examination methods are employed in all courses. The school places great emphasis on clinical training in addition to a didactic curriculum with a weekly schedule that includes classes and clinical training.

Disclaimer: The UWHC School of DMS does not discriminate based on race, sex, handicap, religion, age, national origin, or veteran's status. The program does not practice open enrollment and does not maintain a waiting list.

CONTACT INFORMATION

Any questions or concerns regarding the admissions, education curricula, or administrative policies held by the UWHC School of DMS should be directed to the Program Director.

UWHC School of DMS – Faculty

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| Michelle Cordio M.Ed., ACS, RDMS, RVT, RDCS, FASE Program Director Phone: 608-890-6493 Email: mcordio@uwhealth.org | Mindy Vanderleest MBA, RDMS, RVT General/Vascular Sonography Instructor Phone: 608-890-6295 Email: mvanderleest@uwhealth.org |
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| Lindsey Thomas BS, RDCS, RVT Clinical Education Coordinator Echocardiography/Vascular Sonography Option Phone: 608-890-7985 Email: lthomas@uwhealth.org | Hailee Krall BS, RDMS, RVT General/Vascular Sonography Instructor Phone: TBD Email: hkrall@uwhealth.org |
| Peter S. Rahko MD Echocardiography/Vascular Sonography Option Medical Director | Lori Mankowski-Gettle MD General/Vascular Sonography Option Medical Director |
| Mailing Address: School of Diagnostic Medical Sonography University of Wisconsin Hospital & Clinics 610 N. Whitney Way, Suite 440 Madison, WI 53705 Fax: 608-263-9208 Website: https://careers.uwhealth.org/diagnostic-sonography-ultrasound-school/ | |

Academic Advising – University Advisors

All students are assigned to an academic advisor upon admission to their affiliate university and all new freshmen must meet with their advisor before they will be permitted to register for their first term. These requirements are subject to change, and if a student is unsure of the requirements for their program, they need to consult their advising office.

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| <i>Carroll University:</i> Lucinda Glaser (262) 524-7435 | <i>Edgewood College:</i> Savanna Meo (608) 663 3212 Kyle Sanger (608)663-2826 |
| <i>Marian University:</i> Cheryl Seelig (920) 716-1884 Sean Fitzpatrick (920) 923-7677 | <i>UW-Milwaukee:</i> William Mueller (414) 229-2758 |
| <i>UW-La Crosse</i> Melissa Weege (608) 785-6979 | <i>UW-Oshkosh</i> Mallory Janquart (920) 424-0678 |

Once students are accepted into the UWHC School of DMS, the Program Director and Clinical Education Coordinator serve as academic advisors in conjunction with the assigned advisor from the UW-Milwaukee, La Crosse, Oshkosh, Edgewood College, Marian University or Carroll University.



INSTITUTIONAL AND PROGRAM STANDARDS

UW Health Mission, Vision and Values

UW Health Mission

Advancing health without compromise through:

Service
Scholarship
Science
Social Responsibility

UW Health Vision

Remarkable Healthcare

UW Health Values

UW Health is guided in the pursuit of its mission and vision by a set of core values:

Excellence
Innovation
Compassion
Integrity
Respect
Accountability
Diversity

UW Health is profoundly committed to being a diverse and inclusive environment for patients, visitors, staff, and physicians.

Program Philosophy

The mission of the UWHC School of DMS is to educate students in the art and science of diagnostic medical sonography and to prepare competent entry-level general, cardiac, and vascular sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

Our graduates serve all of Wisconsin, which parallels the mission of the University of Wisconsin (UW) -Madison. Our mission complements the missions of UW Health, UW Center for Health Sciences and the UWHC. These overall missions include caring for the ill and injured, serving community health needs, educating new health professionals, and furthering the use for medical research through medical imaging. As an integral part of the UWHC health community, students participate in the achievement of the schools and institution's mission and goals.

Under the management of the Program Director, Clinical Education Coordinator, Clinical Instructors, and staff, student sonographers experience clinical and didactic situations conducive to learning. Student sonographers grow in knowledge, ability, and as individuals, as they progress toward a career in the health profession.

Our school's mission is achieved when the graduate has successfully completed the program as determined by the program standards. The program's mission, goals, outcomes, and standards are evaluated annually by the faculty, department and hospital administration and the school advisory committee.

CAAHEP Accreditation

The UWHC School of DMS is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) www.caahep.org.

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Seminole, FL 33775

Phone: 727-210-2350

Fax: 727-210-2354

Email: mail@caahep.org

INSTITUTIONAL AND ADMISSIONS POLICIES

Admission Committee

The admission committee for the UWHC School of DMS is as follows:

- Program Director (PD)
- General/Vascular Sonography Clinical Education Coordinator (CEC)
- Echocardiography/Vascular Sonography Clinical Education Coordinator (CEC)
- General/Vascular Sonography Instructor
- Echocardiography/Vascular Sonography Instructor



Eligibility Requirements

Please note that you must be currently enrolled at one of our Academic Affiliates and seeking a Bachelor of Science degree to be eligible for application into our program. Admission to UWHC School of DMS is highly competitive and granted to a limited number of applicants each year. Only the most qualified candidates will be invited to proceed through each step of the selection process. Interviews are not guaranteed. A diagnostic medical sonography student must be a mature, professional, dependable person who is “people oriented” and genuinely interested in caring for individuals who are ill, injured or disabled. All applicants are evaluated on the same basis regardless of race, sex, sexual orientation, handicap, religion, age, national origin, or veteran’s status.

The following information offers a general description outlining the attributes of a successful candidate:

- Students must be in good health and physical condition to be capable of performing the duties required of a sonographer. **Immunizations must be current.**
- Applicants to the program must have attained the level, scope, and breadth of educational preparedness necessary to meet the demands of the rapidly evolving, highly technical, ethical, and diverse professional curriculum taught at UWHC School of DMS.
- Priority consideration will be afforded to those applicants who have completed all prerequisite courses with an earned grade of “C” or higher in each course.
 - Applicants who are actively enrolled in and making satisfactory progress in a prerequisite course will be given consideration.
 - Applications will be scored accordingly.
 - Applicants who have outstanding prerequisite course work who are not actively enrolled in and/or are not making satisfactory progress in will be deemed ineligible for the current enrollment period.
- Applicants must demonstrate an academic background that is strong in science and mathematics by completing the educational requirements as outlined on the following pages. **The applicant’s cumulative GPA for pre-professional course work must be at least 3.0 on a 4.0 scale.**
- Practical experience caring for the ill and injured is required as it prepares the student for clinical practice.
 - Such experience is obtained through CNA certification and a minimum of 100 hours of patient care experience performed in nursing homes, hospitals, clinics, urgent care, or trauma centers.

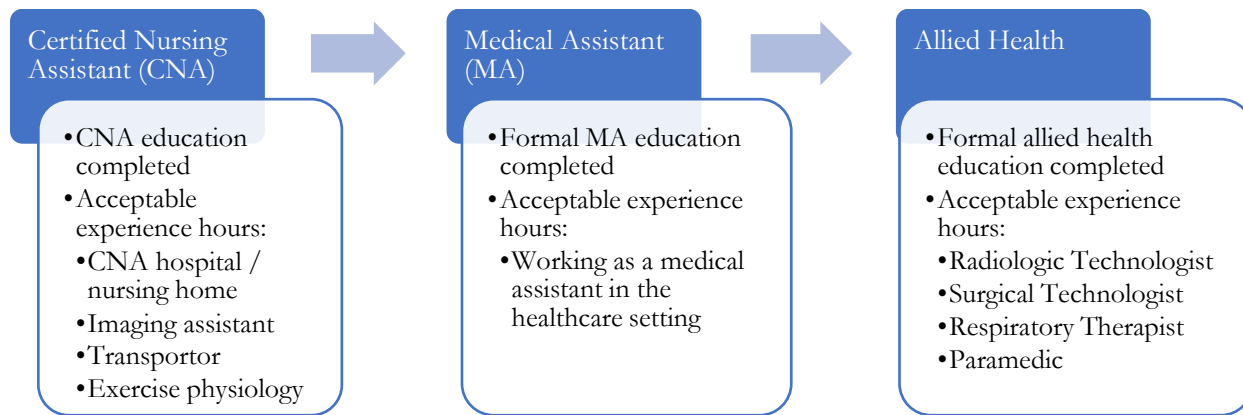
Basic Patient Care Experience Prerequisite to DMS

Applicants must demonstrate health care experience sufficient for developing an understanding of the sonographer role, the health care environment, and their own aptitude for the sonography profession. Direct patient care experience is necessary to ensure a level of proficiency needed to be successful in the sonography program.

Applicants should be able to demonstrate knowledge and application of the following:

- Anticipate and respond to the needs of the patient
 - Demonstrate age-related and cultural competence
 - Demonstrate appropriate patient care in settings outside the sonography department
- Transport and transfer patients with support equipment; oxygen, IV lines/pumps, urinary catheters, drainage tubes
- Vital signs including color and skin integrity
- Clinical history
- Proper patient positioning, comfort, and draping
- Privacy
- Life threatening situations and implementation of emergency care as permitted by institutional policy
- Reporting and documentation of incidents and/or adverse reactions

A minimum of 100 hours is required. Patient Care experience may be met by one of the following:



- Applicants must provide proof of current CPR certification from either the AMA or the American Red Cross, by the application deadline. CPR certification needs to include BLS (Basic Life Support) for Adults, Children, and Infants. Students will be required to maintain current CPR certification throughout their clinical education at the UW Hospitals and Clinics School of DMS.
 - **CPR certification courses administered online will not be accepted.**
- **Post-Baccalaureate Certificate Program in Diagnostic Medical Sonography:** Candidates who wish to apply to the post-baccalaureate certificate program in Diagnostic Medical Sonography must comply with the following criteria:
 - Currently enrolled in the Universities of Wisconsin - Milwaukee.
 - Earned a Bachelor of Science degree in Radiologic Technology (BSRT) within the past 5 years.
 - Achieved a minimum cumulative GPA of 3.0 on a 4.0 scale (or equivalent) from the BSRT degree granting institution.
 - Completed the 2-year clinical training in Radiologic Technology at a site affiliated with the UW–Milwaukee, La Cross, Oshkosh, Edgewood College, Marian University or Carroll University.
 - Hold active certification as a registered Radiologic Technologist (ARRT credential RT(R)).
- Applications that are complete and received by the deadline are reviewed, evaluated, and given a numerical score. Applications are scored based on past academic performance, accomplishments, references, work-related experience, and aptitude.
 - The highest scoring applicants are invited to interview.
 - Those applicants whose qualifications and combined application/interview scores indicate the greatest potential for professional and personal development are selected for enrollment.
 - Applicants who are not accepted into the program may re-apply the following year.

Application Deadlines

Applications are submitted through an Education Coordinator at each affiliate college/university. Each affiliate collects the application materials which it then forwards to UWHC School of DMS. **Submit application materials to the appropriate contact at your university affiliate by the following deadlines:**

- Carroll University applicants: Dec. 1
- Edgewood College applicants: Dec. 1
- UW-Milwaukee applicants: Dec. 1
- Marian University applicants: Dec. 15
- UW-La Crosse applicants: Dec. 15
- UW-Oshkosh applicants: Dec. 15

Prerequisite Curriculum

Prerequisite curriculum is managed by each university affiliate. Specific coursework may vary from one affiliate to another. If you would like to learn more about the coursework required before beginning clinical training, please contact the admissions department at whichever institution(s) you may be interested in attending.

Application Checklist

The following steps must be followed before an application is considered complete:

- Complete and submit the School's application form to the appropriate Education Coordinator at your affiliate university, along with a **\$50, non-refundable application fee via check or money order payable to the UWHC of DMS.**
- Submit an Autobiographical Statement of 200 words or fewer describing why this field interests you. Include your qualifications for becoming a Diagnostic Medical Sonographer.
 - The essay must be typed, double-spaced, signed, and dated by the applicant to verify authenticity.
- Submit official transcripts of **all** post-secondary course work.
 - Official transcripts must be mailed from the college or university that issued them.
 - Prerequisite coursework must be complete or in-progress prior to the application deadline and have an earned grade of C (2.0) or better.
 - The applicant's overall GPA must be at least 3.0 on a 4.0 scale.
- Submit documentation of CPR and CNA certification, 100 hours of direct patient care and a minimum of 8 hours of job shadowing in ultrasound, or a detailed plan regarding when this will be completed before interviews take place.
- Applicants must submit all materials to their affiliate university by the application deadline.
- Qualified applicants will be notified for an interview no later than March 1 of each year.
- Applicants will be notified regarding acceptance no later than April 30 of each year.
- New Student Orientation begins prior to the academic year.

Admissions / Acceptance Procedure

Applications that are complete and received by the application deadline are reviewed by a DMS faculty committee, scored, and the applicant is notified of his/her eligibility for interview. Incomplete applications will not be processed.

Prerequisite coursework must be complete or in-progress by the application deadline. Applicants must be able to provide proof of registration in any courses not completed by the application deadline to indicate the course will be completed prior to the program start date.

The UWHC School of DMS will notify applicants when the application is complete. Interviews will be conducted by the Admissions Committee which is comprised of all current faculty members for the UWHC School of DMS.

The interview will take place at the UWHC School of DMS at 610 N. Whitney Way, Suite 440, Madison, WI 53705. Interviews by the Admission Committee run approximately thirty minutes in length. Those interviewed will receive an interview score. Applicants must receive a minimum average interview score from all interviewers to be admitted into the UWHC School of DMS.

The Admissions Committee will select students for the upcoming enrollment period. The number of students selected for the Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography option and Adult Cardiac Sonography / Vascular Sonography option will vary between 6 and 10, based on current clinical site availability, for each option, per year. **All applicants will be notified via email whether they have been accepted into the program.** If accepted, the applicant is required to confirm or decline acceptance by the date stated in their acceptance letter (email). Accepted applicants not wishing to attend should notify the school immediately. Students accepted into the program will receive additional information detailing their orientation, clinical rotations, and academic course schedules. Accepted students will be required to provide proof of CPR certification from the time of application through the end of the UWHC School of DMS program. Should CPR certification expire during that period, the applicant will be required to show proof of the renewed certification. Applicants accepted to the UWHC School of DMS must submit a non-refundable \$100.00 enrollment fee to hold their place in the class for which they are accepted.

Technical Standards and Physical Requirements of Sonographers

Applicants should be aware that:

- Sonographers must have the ability to organize and accurately perform the individual steps of the ultrasound examination in proper sequence.
- The sonographer is expected to examine patients who may have communicable diseases and/or other health problems.
- Sonographers must have the capability to be independently mobile.
- Sonographers must have the hearing and visual acuity sufficient to perform ultrasound examinations, observe patients, read monitors, and document and hear equipment alarms.
- Sonographers must have the ability to transport patients from wheelchairs and patient carts to an examination table (to lift more than 50 pounds routinely) and transport mobile ultrasound equipment to patient rooms, operating rooms, and research laboratories.
- Sonographers must have the ability to sit / stand for prolonged periods of time.
- Sonographers must have the ability to work with arms routinely.
- Sonographers must have the ability to push and pull routinely.
- Sonographers must have the ability to kneel and squat routinely.
- Sonographers must have the ability to work within a limited space.

Confidentiality

The UWHC School of DMS will follow the UWHC Corrective Action for Non-Compliance with Confidentiality of Protected Health Information. This policy is available to review on U-Connect and in the PD's office.

Grievance Policy

If a student wishes to appeal a decision of the faculty of the UWHC School of DMS for Academic or Disciplinary reasons, the following policy governs the process of student appeal or grievance procedure:

- Within 21 days of the faculty decision, the student must submit in writing a request of formal appeal to the Dean of the Schools of Medical Imaging and the PD of the UWHC School of DMS. In the formal appeal the student must explain in which respects the decision is claimed to be arbitrary or unreasonable.
- Within five working days after receipt of this formal appeal, the Dean will appoint an appeals board consisting of a radiologist or cardiologist, a department supervisor, a staff sonographer, and a member of hospital administration as a consulting member. Members of the appeals board must not have been involved directly in the decision which is being appealed.
- The appointed appeals board will schedule a hearing on the appeal within five working days. The student will be given at least five days advance notice of the scheduled hearing. Both the student and the faculty at this hearing may present all evidence pertinent to the dismissal action. A taped recording of the hearing will be made.
- Within 10 working days after the hearing, the appeals board will render a decision in writing to the student and the faculty. The decision of the appeals board is final in all cases.

Faculty Grievance Policy

The UWHC School of DMS faculty members are employees of the UWHC. The Faculty follows the UWHC Employee Grievance Policy. This policy is available for review in the PD's office and on U-Connect. Employee Expectations, Disciplinary Action and Appeal Policy 9.55.

Harassment Policy

The UWHC School of DMS students are to follow the UWHC Equal Employment Opportunity and Non-Discrimination policy on harassment. Policies are available for review on U-Connect and in the PD's office.

Infection Control Education Policy

All UWHC School of DMS Students are required to take the safety and infection control exam on an annual basis. This learning module and exam is offered every January. **Any student not completing the safety and infection control exam by the due date will be removed from their clinical rotation until the exam is taken and a passing score is achieved.** Any missed time must be made up at the end of the semester.

Library Resources

Students enrolled in the UWHC School of DMS have full access to all affiliate and UW-Madison campus libraries and reference librarians. For more information regarding campus libraries see <http://www.library.wisc.edu/>.

New Employee Orientation Policy

All students accepted into the UWHC School of DMS will participate in New Employee Orientation (NEO). The UWHC School of DMS follows the UWHC NEO Policy. This is available on U-Connect and in the PD's office.

Clinical Site On-Boarding Requirements

Students must follow the guidelines for onboarding for each specific clinical site. Students will follow instructions given by the CEC and / or clinical affiliate contact.

Student Background Checks, Ongoing Reporting, ARDMS Pre-Screening Policy

All students accepted into the UWHC School of DMS are required to follow the UWHC new employee onboarding policies. Students are required to complete the Background Information Disclosure (BID) form. UWHC will check work authorization, criminal background, federal health care reimbursement sanctions and exclusions, and work experience; and may check licensure/certification, and other information, as appropriate for the position. All offers are contingent upon successful completion of these checks. Students have an ongoing obligation to inform the PD if they are arrested or convicted of a crime. Students have three working days to report their offense. If not reported within the allotted time the student may be subject to disciplinary action that may result in expulsion from the School of DMS. All UWHC School of DMS students will follow the ARDMS pre-screening and compliance policies. These policies can be found at ardms.org. During orientation students will inform the PD if needed. It is the student's responsibility to follow the above policy once in the program.

Records and Release of Information Policy

The release of information to and about students is in conformance with the Family Education Rights and Privacy Act, as amended 1975. The official transcript of each student's grades is maintained by Universities of Wisconsin - Milwaukee, La Crosse, and Oshkosh, Edgewood College, Marian University or Carroll University. Students must follow the transcript request policy of the college or university at which they are enrolled to obtain an official copy of their grades. The UWHC School of DMS maintains an unofficial grade record for each student. Any information concerning the student's academic or clinical performance is confidential. The student or graduate must make authorization for release of any information in writing to the PD. An individual student's examination record will be available for inspection by that student with the course instructor at any time mutually agreed upon by the student and the instructor. All student records are available to the PD and CEC on a secured shared UWHealth drive. Inspection of the student's records by an individual student will be permitted by appointment with the PD or CEC.

Student Records

All student records will be maintained in perpetuity. The past ten years are kept on site in a secured location. Prior records are stored at Access Information Management, Inc., and may be retrieved at any time.

Student Withdrawal Policy

A student desiring to withdraw from the program must submit to PD written notice stating the reason for withdrawal and giving an effective date. Failure to follow proper procedures will result in dismissal.

Voluntary Scan Lab Consent / Incidental Findings Policy

All UWHC School of DMS Students are required to sign the Voluntary Scan Lab Consent Form at the beginning of their education (Orientation) prior to the first scan lab. Voluntary scan labs are defined as supervised clinical education where one student will scan another student or phantom using ultrasound equipment at the clinical sites. Through participation as a volunteer, students have an opportunity to obtain practical scanning experience prior to scanning patients. Voluntary scan labs are supervised by DMS program instructors. Incidental findings will be documented, and a form will be completed by a program instructor in the scan lab. The findings and the form will be sent to the Medical Director. The Medical Director will review the findings, images, and make a recommendation to the student when to seek medical attention.

FINANCIAL INFORMATION

Application Fee and Enrollment Fee

Applicants must submit a \$50 processing fee with their application into the program. Applicants accepted to the UWHC of DMS must submit a \$100 enrollment fee to hold their place in the class for which they are accepted. The due date of this fee will be stipulated by the School in the letter of acceptance. Applicants who do not submit the enrollment fee by the stated deadline will forfeit their enrollment and an alternate applicant will be offered their place in the coming class. The enrollment fee is non-refundable.

Tuition

The amount of tuition each student pays is determined by the respective university affiliate. Students make tuition payments directly to their college or university. Contact the bursar's office at your university affiliate for the most current information regarding tuition charges. All tuition and fees must be paid in full before a student will be granted a certificate of completion and ARDMS Certification Examination eligibility.

[Carroll University tuition information](#)

[UW-La Crosse tuition information](#)

[Edgewood College tuition information](#)

[UW-Milwaukee tuition Information](#)

[Marian University tuition information](#)

[UW-Oshkosh tuition information](#)

Textbooks

Textbooks are required and recommended by the UWHC School of DMS. A textbook list will be sent to students with the information packets included with welcome letters when they enroll in the program. Students should plan to spend a total of up to \$2,500 for required textbooks. All textbooks may be purchased online.

Refunds

Tuition paid in advance for more than the current semester will be refunded according to the guidelines of their respective college or university.

Meals and Housing

Students are responsible for their own meals. Students are responsible for providing their own room and board during the duration of the program. It is recommended that students locate in the Madison area.

The UW Campus Assistance Center can aid students in locating rental housing (houses, apartments, boarding houses, and rooms in private residences).

UW Campus Assistance Center: University of Wisconsin-Madison
1308 W. Dayton St. Union South
Madison, WI 53715 (608) 263-6400

Attire

Students enrolled in the UWHC of DMS will always be compliant with the clinical dress code (pages 39, 40). Students that do not adhere to the dress code are subject to disciplinary action that could result in expulsion.

Costs for professional attire can vary, but students can expect to pay \$200-500 for professional attire during the program.

Health Requirements and Health Insurance

Applicants must have a physical completed by UW Hospitals and Clinics, at no cost to the student, prior to start date. They must be screened by Employee Health Services (EHS) and be able to meet the physical requirements of the training. The UWHC School of DMS provides students with access to basic health care services via the University of Wisconsin [University Student Health Services](#) (UHS). Rates and services available through University Health Services (UHS) may be viewed on its website. UWHC of DMS contracts with UHS so that program students pay UW-Madison student rates for UHS. Students may purchase supplemental health insurance coverage on their own if they wish. Students must make an appointment prior to seeing medical professionals at UHS. University of Wisconsin UHS is located on the 5th – 8th floor of 333 East Campus Mall, Madison, Wisconsin. UWHC EHS will treat students free of charge who become ill or injured while on clinical duty at a UWHC clinical site. Students using [UW Health Emergency Services](#) for medical treatment will be billed for those services.

Financial Aid

UWHC School of DMS does not sponsor or award financial aid. Students may apply for financial aid programs available at their respective college or university.

Additional Expenses

Students in both the Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography and Adult Cardiac Sonography / Vascular Sonography options are required to participate in clinical training rotations through a variety of hospitals and clinics located in the city of Madison and southeastern Wisconsin. While all clinical sites within Madison are accessible by public transportation bus service, sites outside the Madison area may only be accessible by private automobile. Students are responsible for their own transportation to these outlying sites. Those who wish to park in parking lots located at or near clinical sites are may be required to pay a fee. Some clinical sites may require a badging and/or an onboarding fee. Some examples below:

- \$40 myClinicalExchange annual fee – non-refundable – on boarding fee
- \$10 Meriter Badge – refundable at the end of the program upon return
- \$10 Divine Savior Healthcare – non-refundable – on boarding fee
- ARDMS Board Exam(s) Fee and Annual Fee
 - SPI (Physics) – \$225
 - RDMS, RDCS, and RVT – \$250
 - ARDMS Annual Fee – \$85

Students that are in the Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography and Adult Cardiac Sonography / Vascular Sonography options are required to wear a uniform of navy-blue scrubs to clinical sites. Therefore, students are responsible for providing their own uniforms. **Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography students only:** St. Mary's medical imaging and perinatology require black scrubs OR surgical scrubs. The surgical scrubs provided by St. Mary's are free, however Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography students will be required to purchase black scrubs if the student chooses not to wear surgical scrubs.

All students are also required to become student members of the Society of Diagnostic Medical Sonography (SDMS) and the South-Central Wisconsin Ultrasound Society (SCWUS). The fee for the SDMS is \$45.00 per year and the SCWUS \$35.00 per year.

ATTENDANCE AND LEAVE POLICIES

Clocking in and out at Clinical Sites

Clinical hours for specific sites are found on page 34. All students will clock in and out via the MyTime clocking system. At the discretion of the PD or CEC, clinical hours may, on occasion, be modified so that students may attend an educational conference or to accommodate certain clinical sites.

Students may not be absent during a clinical day unless there is a medical / personal emergency or illness. An excused absence will require documentation of the medical or personal emergency or illness. **Any illness will require a doctor's note.** If a student is going to absent for any reason, he / she must contact the CEC and the clinical site. Table 1 (page 32) and Table 2 (pages 33, 34) provide contact information for all clinical sites. Failure to comply with any of the above will result in an unexcused absence. Only 2 unexcused absences are allowed in the duration of the program. A third unexcused absence will result in dismissal from the program. All absences, excused or unexcused, will be made up on student breaks.

Tardiness will not be tolerated. Any time greater than 5 minutes late will be considered tardy. 5 points will be deducted from the average clinical evaluation grade for each occurrence. Early clocking out (more than 5 minutes before 1630) will result in a 5-point deduction from the clinical evaluation for each occurrence. Students must maintain a passing clinical grade of 80% or higher.

Students are required to clock in and out electronically. Students will use their UW ID badge by swiping it whenever they are at the UW Hospital or UW Clinics (i.e. CSC, UW Health East Clinic, UW Health West Clinic, etc.). Students will clock in via the phone belonging to the clinical site using the MyTime system when they are at sites that are not UWHC affiliates. **The MyTime number is (608) 265 – 6500.** When calling in, students must follow the prompts for proper use. Specific directions for this system will be handed out in orientation. The MyTime system is tracked by location. **Students cannot use their cell phones to clock in or out at any time.** Attempting to time in from any place other than your assigned clinical site will result in an automatic unexcused absence. Students that fail to clock in or clock out will have 5 points deducted from the clinical evaluation for each occurrence. If a student feels they have missed a clock in, or if a time malfunction has occurred, the student needs to tweet, email and /or call the appropriate CEC immediately.

Students are always to be in uniform while at clinical, which consists of navy-blue scrubs and ID badge at every clinical site (except for St. Mary's medical imaging and perinatology. No jeans or open toed shoes are allowed. Forgetting the clinical badge will result in the student being sent home to get it. Students will be docked the time it takes and need to make it up on break. The only exception is SSM St. Mary's General Imaging Lab. At this site only, you will need to wear black scrubs or SSM surgical scrubs.

If a student does not punch in or out on a clinical day, the student needs to contact the appropriate CEC to enter in the correct time. Students are allotted a 30-minute grace period to contact the appropriate CEC for no point penalty to be applied (example: before 0830 for a missed punch in, or by 1700 for a missed punch out on the same day that it occurred). Failure to do this will result in a 5-point deduction from the clinical evaluation.

Clinical Site Staffing Absence

Except when approved for early dismissal by the PD, CEC or clinical instructor, students will never leave their clinical sites early for any reason except a medical emergency or illness that is excused with a doctor's note. An emergency or illness requires phone notice to the CEC or PD at the time of the occurrence to be considered excused. **Students are not allowed to remain at a clinical site when there are no clinical instructors present.** Students must leave the clinical site when all staff sonographers are leaving. The student must contact the appropriate CEC to inform them of the situation. Students in this type of situation who are required to leave > 2 hours before the end of the clinical day will be required to make this time up. The CEC will assess each situation on a case-by-case basis.

Absence Request Policy

If a student has a planned absence or is absent due to emergency or illness, the student must fill out an Absence Request Form. For a planned absence, the student must submit this form with the makeup dates and times included to their CEC prior to the absence. For all other absences, completed forms must be submitted via email, fax, or by hand-delivery to the CEC at the program offices at 610 N. Whitney Way, Suite 440, within 14 days of absence. The Absence Request form can be found under the College of Allied Health Sciences Diagnostic Medical Sonography course shell on Canvas. All requests will be reviewed by the CEC and will be determined on a case-by-case basis. **All missed time is required to be made up during a semester break. Acceptable planned absences include:**

- Scheduled to Appear in a Court of Law
- Urgent Medical Need *(i.e. an appointment to address an acute condition)*
- Board Examinations
- Incarceration
- Requirements for Armed Forces Service

| Students MUST make up missed time for: | Students DO NOT make missed time up for: |
|---|--|
| <ul style="list-style-type: none"> - 1 Personal Day per Semester, 5 days total <ul style="list-style-type: none"> o 3 are required to be made up, 2 are not required to be made up o Students cannot bank hours/days o Encouraged to make up day before the semester begins (complete hours over winter/spring breaks) - New Employee Orientation for Sonography Job <ul style="list-style-type: none"> o Any Sonography training that is paid needs to be made up - Urgent Medical Need/Sickness <ul style="list-style-type: none"> o MUST acquire Doctor's Note - Scheduled appearance in a Court of Law - Incarceration - Requirements for Armed Forces Services | <ul style="list-style-type: none"> - Interviews for Sonography Jobs <ul style="list-style-type: none"> o Time does not exceed 16 hours - ARDMS Board Examinations - Visitations/ Funerals of a Family Member <ul style="list-style-type: none"> o Close relatives ONLY o Time does not exceed 3 days |

Additional Guidelines

All make-up time is required to be completed over school breaks, prior to the start of the following semester after the missed time was recorded.

- Example: A student is sick one day (8 hours) in October of Semester 1. That student is required to make up one day (8 hours) over winter break between Semester 1 and Semester 2.

After Spring Break of Senior Year, if a student misses any clinical time or still needs to make up time, the student **MUST** attend clinical **AFTER** Graduation. All Final Grades and the UWHC School of DMS Graduation Diploma may be withheld until **ALL** missed time is made up.

Leave of Absence Policy

If a student needs to take a leave of absence during the course of the 22-month program, to the extent that it prohibits them from participating in clinical education activities for a period of prolonged time: 30 days minimum, the student needs to request, in writing a leave of absence. All time must be made up prior to graduation. Leave of absence requests will be granted on a case-by-case basis. Based on the leave of absence request, the student may be dropped from the program with eligibility to be readmitted in proper academic and clinical sequencing in the following year. The student's readmission and date of program completion will be determined by the Admissions Committee. If a need for a leave of absence occurs in the first three months of the program, the student must reapply for admission to the School in the class starting the following year.

Inclement Weather Policy

In the event of inclement weather UWHC School of DMS students will **not** need to attend face to face courses or clinical rotations. Online classes will be held at the discretion of the DMS faculty. Factors that will force the closure of the school will be a combination of area schools being closed due to inclement weather and the school following the UWHealth Inclement Weather Policy found on Uconnect. A decision will be made by 6:00 am. The PD will inform the students and faculty regarding the school closure, via Twitter or email.

If a student ever feels unsafe traveling to a clinical site, they may contact their CEC for an alternative clinical placement for the day. The student will be responsible for contacting the original clinical site prior to their start time. If an alternative clinical site cannot be assigned the student will not be penalized for missing the day but they will make up the clinical hours missed later, following the UWHC School of DMS absence policy.

CPR Policy

Current CPR certification by the American Medical Association or the American Red Cross in the areas of Adult, Child, and Infant Basic Life Support, must be maintained by each student for the entire duration of their 2 years in the UWHC School of DMS. Online CPR certifications will not be accepted for admission to the school or renewal. It is the student's responsibility to stay up to date on their CPR requirements. If a student's certification expires during the program, that student will not be allowed to perform clinical rotations, effective immediately. The student will need to attend a renewal or recertification course as soon as possible and will need to plan with their CEC to make up any clinical time that is missed. The student will need to fill out an absence request form for any days missed, due to CPR certification lapses.

Disability Policy

If a student becomes disabled during the course of the 24 months program to the extent that it prohibits them from participating in clinical education activities for a period of prolonged time: 30 days minimum, the student will be dropped from the program with eligibility to be readmitted in proper academic and clinical sequencing in the following year. The student's readmission and date of program completion will be determined by the Admissions Committee. If such a disability occurs in the first three months of the program, the student must reapply for admission to the school in the class starting the following year.

Pregnancy Policy

Students have the option to declare their pregnancy in writing to the PD. Without written notification, the student is not considered pregnant. If delivery occurs during training, all course work and clinical time must be completed before the student is eligible for graduation. The school cannot guarantee normal program completion time if a pregnancy occurs during training. The student is to be re-admitted only after physician's approval. Re-entry of the student is evaluated on an individual basis.

Work Stoppage Policy

In the event that the UWHC Department of Radiology is unable to continue to function in a normal or routine manner because of a strike or work stoppage by the sonographers, the School of DMS will temporarily cease operation until such time as the requirements of clinical education by the JRC-DMS can again be met. Students may not be used in place of sonographers. The school is not responsible for time lost due to strike or work stoppage. Every effort will be made upon resumption of normal department activities to complete student's clinical education requirements in a timely manner.

Holiday Policy

The following days are official UWHC School of DMS Holidays:

- January 1
- July 4
- Thanksgiving Day
- December 24
- Martin Luther King Day
- Labor Day
- The day after Thanksgiving
- December 25
- Memorial Day

Vacation Policy

Students enrolled in the UWHC School of DMS will have scheduled semester breaks. Vacation time will not be granted to students while UWHC School of DMS classes are in-session.

Bereavement Policy

Students will be granted up to three days funeral leave for the death of an immediate family member. Immediate family shall be the husband or wife, parents, sibling, children, grandparents, mother-in-law, father-in-law, stepparents, stepbrothers, stepsisters, half-brothers, or half-sisters. If another relative would hold the same close relationship, special approval may be acquired from the PD and the CEC. Students must fill out an absence request form when taking time off for bereavement purposes. Students are not required to make this time up.

Service - Work Policy

Students will not, under any circumstance, be allowed to be paid for work as a sonographer during required clinical hours. Students may work outside of the requirements of the program, as sonography students, only during semester breaks, after clinical hours, or on weekends. Work done as a sonography student during semester breaks will not count toward the clinical hour requirements for the program.

Interview Policy for Senior Students UWHC School of DMS

Beginning in the spring semester (semester 5) of students' senior year, students may be eligible to interview for employment opportunities as registered sonographers without making up clinical rotation time, if they meet the following criteria:

- Have earned at least one of the following credentials by passing the ARDMS board examinations (RDMS, RDCS or RVT).
- Are not currently rotating to a clinical site where they are attempting to complete either required clinical competencies or exam numbers.
- The request(s) for time off does not exceed 16 total hours within one semester.

Requests that do not meet all the above criteria may either be denied or be reviewed on a case-by-case basis at the discretion of the program faculty. Any request that is reviewed on a case-by-case basis must be approved by the CEC of the appropriate track or the request will be denied.

ACADEMIC POLICIES

Program Curriculum

The curriculum during clinical training at UW Hospitals and Clinics is five semesters long, consisting of four traditional semesters and one summer session. Students participate in the didactic and clinical portions of the program simultaneously. Combined didactic and clinical hours total 40 hour per week. We do not offer part-time or evening education. Students should expect to be in class or clinical rotations from 8 a.m.-4:30 p.m. Monday-Friday.

Graduation Requirements

Upon successful completion of the program, graduating students receive a certificate from UWHC School of DMS. Students receive a diploma from their affiliate college / university and are also eligible to walk in the graduation ceremony on their respective campus. In addition, graduates are granted eligibility to write the certification examinations given by the ARDMS.

Requirements for graduation are as follows:

- Complete all didactic courses with a letter grade of "C" or better.
- Complete all clinical competencies with a letter grade of "C" or better.
- Complete all clinical rotations with a grade of "C" or better.
- Complete all clinical courses with a letter grade of "C" or better.
- All tuition / fees are paid in full, and all library materials are returned.

- All missed time must be made up.

Board Exam Attempt Policy

Students will be eligible to sit for multiple board examinations prior to graduation. The below timeline indicates the due dates that students should attempt to complete their examinations:

- SPI – before semester 4 begins
- Abdomen and Adult Echocardiography – before semester 5 begins
- Obstetrics and Gynecology – before April 1st of semester 5
- Pediatric Echocardiography – during windowed examination timeline specified by the ARDMS
- Vascular Sonography – May 15th of semester 5

If a student is unable to meet the deadline, they should contact the CEC or PD. From there, each situation will be evaluated on a case-by-case basis. Failure to comply may result in disciplinary action.

Grading and Evaluation

The UWHC School of DMS has the following grading scale in place for all clinical and academic courses. It is the policy of the school to not round grades up.

92%-100% - A
85%-92% - B
80%-84% - C
74%-79% - D
Below 74% - F

Scan Lab Proficiencies

Students are required to successfully complete clinical competency examinations at clinical education sites graded by sonographers that are credentialed in each specific modality. Students are required to complete proficiencies at the School of DMS, graded by appropriately credentialed faculty, in both the general/vascular and echocardiography/vascular programs prior to attempting clinical competencies.

Students will demonstrate to School of DMS faculty their ability to produce images of anatomic structures outlined by the scan lab objectives provided by the CEC during scanning laboratory periods. Students will then complete, with a passing grade, a proficiency under the supervision of School faculty. Upon successful completion of each proficiency, students will be allowed to begin completion of their clinical competencies at their clinical sites. Proficiency Policy (see below) for scan lab is defined as:

- Completing all proficiencies are required to progress through the program. Proficiencies are pass/fail.
 - Grading rubrics for all proficiencies are found on Trajecsys. Faculty will evaluate performance based on the criteria given. A score will be calculated for pass/fail with 80% as the cutoff for passing. There is no grade associated with the proficiencies, proficiencies are a requirement for progression through the program.
 - If 80% is not earned on a proficiency the student will have to repeat the proficiency.
- If 80% is not earned on the second attempt at a proficiency an action plan will be created, and the student may be put on probation.
- At any point in a student's education the student may be asked by a clinical instructor or faculty member to re-demonstrate a proficiency in the lab at school. The student will repeat the proficiency with faculty evaluating performance based on the criteria given on the Trajecsys rubric. If a passing score (80%) of the proficiency is not earned an action plan will be created and student may be placed on probation.
- The above situations will be reviewed on a case-by-case basis.

Practical Final Exams

During a specific lab time each student will be required to perform an assigned ultrasound exam. The student will be expected to perform this exam in the lab with an instructor. Grading will be based on the proficiency exam rubric on Trajecsys unless otherwise stated.

If the practical final exam counts for a proficiency as well, the grading for the proficiency will follow the Proficiency Policy (see below). The practical final will be its own grade, with the same value.

- Completing all proficiencies are required to progress through the program. Proficiencies are pass/fail.
 - Grading rubrics for all proficiencies are found on Trajecsys. Faculty will evaluate performance based on the criteria given. A score will be calculated for pass/fail with 80% as the cutoff for passing. There is no grade associated with the proficiencies, proficiencies are a requirement for progression through the program.
 - If 80% is not earned on a proficiency the student will have to repeat the proficiency. The structure of this path will be defined by the instructor.
 - To possibly include instructor led labs prior to the repeating.
 - A written plan/agreement will be established so all parties understand expectations.
 - If 80% is not earned on the second attempt at a proficiency an action plan will be created, and the student may be put on probation.

If 80% is not obtained on a practical final exam the following steps may be implemented:

1. The score received for the first attempt is the final grade.
2. The student will be expected to meet with the faculty to create a plan, similar above.
3. Repeating the proficiency and obtaining a score > 80% is required prior to performing this competency in the clinical setting.

Academic Standards

Clinical Course Policy – Clinical Probation / Behavioral Probation

Refer to page 40-42.

Clinical Course Policy – Academic Probation / Behavioral Probation

Refer to page 40-42.

Incompletes

A student may be given an incomplete if they have carried a subject successfully until near the end of the semester but, because of illness or other unusual and substantiated cause beyond their control, have been unable to take or complete the final examination or to complete some limited amount of course work. An incomplete is not given unless the student can prove to the instructor that they were prevented from completing the course requirements for just cause as indicated. Students enrolled in the UWHC School of DMS are required to complete a course marked incomplete prior to the end of the next succeeding semester. If you do not remove the incomplete during this period, the report of 'I' will lapse to 'F.'

Repeating Courses

Students enrolled in the UWHC School of DMS are not allowed to repeat a course. All courses must be passed, in proper sequence, with a letter grade of 'C' or better to graduate.

Attendance

Students are expected to attend all classes and clinical rotations. In case of emergency the student will need to notify the PD, CEC, and clinical site that they will be absent. All missed time must be made up on semester breaks. All missed time must be made up prior to graduation. If an absence is requested, the student will need to complete an absence request form. See Absence Request Policy.

Certification / Registries

UWHC School of DMS graduates are eligible to take certification examinations offered by the ARDMS.

Academic Calendar

UWHC School of DMS, see below for the 2022 – 2024 calendars:

| Semester | 2022-2023 | 2023-2024 |
|-----------------|--|--|
| Fall | Class of 2024 NEO: August 1, 2022 Orientation: August 23 - 25 August 29, 2022, Through December 16, 2022 | Orientation: August 22-24, 2023 August 28, 2023, Through December 15, 2023 |
| Spring | January 17, 2023, Through May 12, 2023, Spring Break-week of March 13 th | January 16, 2024, Through May 23, 2024, Spring Break-week of March 25 th Graduation: Thursday, May 23, 2024 |
| Summer | June 12, 2023, Through August 4, 2023 | |

Student Awards

The John Parks Award is an annual award presented to the students with the highest overall grade in the Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography and Adult Cardiac Sonography / Vascular Sonography options.

The Carol C. Mitchell Outstanding Clinical Student award is presented to the students who receive the highest number of votes from the clinical instructors in the Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography and Adult Cardiac Sonography / Vascular Sonography options.

Each year the graduating students are asked to vote for an outstanding clinical educator in each discipline (Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography and Adult Cardiac Sonography / Vascular Sonography options). The clinical educators selected by the students are awarded the Gregory L. Spicer Outstanding Clinical Educator Award by the graduating class.

If a student is on probation at any point in their education, they are ineligible for Student Awards.

PROGRAM CURRICULUM

Adult Cardiac Sonography / Vascular Sonography Option

Program Goals

It is the goal of the UWHC School of DMS Program Adult Cardiac Sonography / Vascular Sonography option to prepare competent entry-level adult cardiac and vascular sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Graduates of the program will be able to utilize the equipment necessary in the operation of an echocardiography department and the production of high-quality diagnostic echocardiograms.

Adult Cardiac Sonography Objectives

Knowledge of cross-sectional and three-dimensional anatomy is critical to the performance and interpretation of ultrasound examinations; therefore, the echocardiography curriculum stresses anatomy, physiology, hemodynamics, and pathology. In addition to anatomy, the knowledge of ultrasound physics is also critical to the performance of ultrasound examinations and the generation of diagnostic medical images. Students are required to take the course Medical Ultrasound Principles and Apparatus. The class teaches the fundamental physical principles upon which diagnostic medical ultrasound is based and in-depth explanations of how physics is manipulated by ultrasound equipment to create images. The echocardiography curriculum covers ultrasound imaging of the heart in a variety of different ways including transesophageal, transthoracic, and introduction to stress echocardiograms on both adult

and pediatric patient populations. Students are also exposed to the basic principles of fetal echocardiography as these patients tend to be followed by echo cardiographers as neonates.

In addition to attending formal classes, students often have an opportunity to attend physician lectures, cardiology conferences, and interesting case readout sessions conducted by cardiologists.

Upon completion of the UWHC School of DMS Program the student will be able to:

- Conduct themselves in a courteous and professional manner while in the hospital and clinical environment.
- Identify and describe sonographic terminology and use the terminology in an effective manner.
- Employ the use of medical terminology and abbreviations pertinent to diagnostic medical ultrasound.
- Identify and perform appropriate nursing care procedures and techniques used in the general care of patients in various states of health and various conditions demanding special needs.
- Demonstrate knowledge of the physical principles of diagnostic medical ultrasound and their applications to the clinical environment
- Describe the principles and applications of Doppler ultrasound.
- Manipulate the technical controls on the equipment used in the ultrasound department to produce an optimum image for diagnostic purposes.
- Record and process for display the images necessary for a diagnostic medical ultrasound examination.
- Identify the biological effects of diagnostic medical ultrasound and take the necessary precautions to avoid excessive exposure of ultrasound in patients.
- Demonstrate the appropriate skills in performing a quality assurance test.
- Demonstrate the ability to apply knowledge of cross-sectional anatomy to diagnostic echocardiography ultrasound images.
- Describe the process of imaging the heart and great vessels utilizing diagnostic ultrasound.
- Describe the principles and applications of Doppler ultrasound.
- Demonstrate the skills necessary to perform an echocardiogram of the adult heart and pediatric heart.
- Identify normal and pathological conditions on an echocardiogram.
- Assist the attending physician/sonographer in the differential diagnosis process of a pathological entity.
- Describe the principles and applications of stress echocardiography.
- Describe the principles and applications of transesophageal echocardiography.
- Demonstrate the ability to maintain a sterile field while assisting with an invasive ultrasound study.

Echocardiographer Role as a Healthcare Professional

The echocardiographer is a health care professional who performs diagnostic ultrasound examinations of the heart under a physician's supervision. Echocardiographers are required to integrate medical knowledge of cross-sectional and three-dimensional anatomy, physiology, pathology, and ultrasound physics to imaging patients in the clinical setting. Echocardiographers work within the framework of an examination protocol where he/she must exercise judgment to tailor each examination to the individual patient's needs. The interaction between ultrasound and a patient's body tissues requires the constant adjustment of techniques and procedures during the examination. Therefore, the echo cardiographer must be able to understand the interaction between ultrasound physics, anatomy, pathology, and equipment manipulation to produce diagnostic medical images that provide comprehensive information about the patient's specific pathology.

Most echo cardiographers work in echocardiography departments located within a hospital; however, many others prefer to work in outpatient clinics, doctor's offices, and mobile medical imaging services where ultrasound examinations are performed on a strictly outpatient basis. Non-clinical positions are available with medical imaging equipment manufacturers who employ echocardiographers to test ultrasound equipment and function as application specialists to teach new technologies to clinical sonographers.

Echocardiography Standards

The school will accept as students, applicants who exhibit by past education, experience, and personal interview a high potential for success in diagnostic medical sonography. The grade point average shall be a minimum of 3.0 on a 4.0 scale in previous academic work. Faculty and staff employed by the University of Wisconsin Hospital & Clinics including the PD, CEC, and lead workers in the Radiology Department Ultrasound Division and Cardiology Department shall serve on the admissions committee.

- Students will learn and understand concepts related to the art and science of diagnostic medical sonography and be able to apply them to clinical situations.
- Students will communicate effectively with patients and provide care for their physical, emotional, and educational needs.
- Students will learn to function and communicate effectively as an essential member of the diagnostic medical sonography team.
- Students will develop ethical and moral practices consistent with the institution’s policies as well as the Code of Ethics upheld within the field of Diagnostic Medical Sonography.
- Students will develop critical thinking skills and will apply them in the classroom and the clinical situations. The PD will evaluate all course and clinical grades at the end of each quarter. A minimum grade of “C” in all academic courses and clinical practices is the required standard.
- Students will demonstrate punctuality, dependability, initiative, and adaptability in their classroom and clinical performance.
- Graduates will successfully pass the ARDMS examinations and exhibit a high degree of satisfaction with the educational experience in postgraduate and employer surveys.
- Graduates will continue their education to remain abreast of new developments in diagnostic medical sonography.

Adult Cardiac / Vascular Ultrasound Course Schedule

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|---|--|
| <p><u>Junior Year Fall Semester</u> Introduction to Diagnostic Medical Sonography Cardiovascular Physiology Cardiovascular Principles Vascular Sonography I Echocardiography Clinical Education I</p> | <p><u>Senior Year Fall Semester</u> Adult Echocardiography III Pediatric Echocardiography II Vascular Sonography III Stress Echocardiography Echocardiography Clinical Education IV</p> |
| <p><u>Junior Year Spring Semester</u> Sonographic Physics & Instrumentation Embryology of the Heart Adult Echocardiography I Vascular Sonography II Echocardiography Clinical Education II</p> | <p><u>Senior Year Spring Semester</u> Seminar in Advanced Medical Imaging Seminar in Management and Education Seminar in Professional Development Echocardiography Clinical Education V Special Procedures in Echocardiography</p> |
| <p><u>Junior Year Summer Semester</u> Pediatric Echocardiography I Adult Echocardiography II Echocardiography Clinical Education III</p> | |

Adult Cardiac Sonography / Vascular Sonography options Course Descriptions

NOTE: Course titles may vary based on the sponsor university, but content remains the same.

INTRODUCTION TO DIAGNOSTIC MEDICAL SONOGRAPHY

In this course the student will prepare for the new and challenging demands of sonography training in a hospital. Clinical policies and procedures are emphasized. Course content includes materials emphasizing personal adaptation skills and staff development issues, nursing procedures, ethics, and skills to become a better student. An overview of basic sonographic terminology, technique and equipment form the framework for future study. There is a

lab component. A final written and practical exam is given. The student will have the opportunity to demonstrate their knowledge of sterile technique.

ADULT ECHOCARDIOGRAPHY I – VALVULAR HEART DISEASE

This course will discuss cardiac anatomy, pathophysiology, and hemodynamics of valvular disease, systolic and diastolic function, prosthetic valves, endocarditis, and transesophageal echocardiography with an introduction to 3D/4D echocardiography. Students will become familiar with the clinical signs and symptoms, grading of valvular disease, and applicable protocols for normal and abnormal cases. Students will take both a written and practical final exam. There is a lab component.

ADULT ECHOCARDIOGRAPHY II – CARDIOMYOPATHIES

This course will discuss cardiac anatomy, pathophysiology, and hemodynamics of pericardial disease, cardiomyopathies, hypertensive heart disease, adult congenital heart disease, MVAD, cardiac transplantation and cardiac masses. Students will become familiar with the clinical signs and symptoms and applicable protocols for normal and abnormal cases. Students will take a written exam. There is a lab component.

ADULT ECHOCARDIOGRAPHY III – ADVANCED PATHOLOGY

This course will discuss advanced cardiac anatomy, pathophysiology, and hemodynamics from the previous 3 semesters through physician lectures, case studies, and review activities. Students will become adept with recalling clinical signs and symptoms, grading and evaluating pathology, and choosing applicable protocols for normal and abnormal cases. Students will take a written exam. There is a lab component.

CARDIOVASCULAR PHYSIOLOGY

This course will discuss cardiac physiology and electrophysiology, auscultation (heart sounds), mechanical and electrical events of the heart, chronotropic and inotropic forces, and components of the cardiac cycle including: IVRT, IVCT, systole, diastole, preload, and afterload. This course will also discuss normal calculations, the relationship of blood pressure, the Valsalva maneuver, cardiac pressures, cardiac catheterization, and an introduction to cardiovascular embryology. Students will take a written final exam.

CARDIOVASCULAR PRINCIPLES

This course will discuss cardiovascular anatomy, ultrasound image orientation, scan planes, routine views, sonographic anatomy, the normal ultrasound exam protocol for the echocardiogram, left ventricle function indicators, hemodynamics and Doppler applications to echocardiography, spectral Doppler measurements, indirect measurements, Doppler methods, right heart pressures, and introductory echocardiography findings in the following disease states; aortic stenosis, aortic regurgitation, mitral stenosis and mitral regurgitation assessment. Students will take both a written and practical final exam. There is a lab component.

ECHOCARDIOGRAPHY CLINICAL EDUCATION I

Students are scheduled for clinical practicum at participating clinical education centers. Clinical experience rotations for Practicum I include adult echocardiography and vascular sonography. During this practicum, students will be assigned clinical competencies and objectives to complete.

ECHOCARDIOGRAPHY CLINICAL EDUCATION II

Students are scheduled for clinical practicum at participating clinical education centers. Clinical experience rotations for Practicum II include ultrasound imaging of the adult heart and vascular sonography. During this practicum, students will be assigned competencies and objectives to complete.

ECHOCARDIOGRAPHY CLINICAL EDUCATION III

Students are scheduled for clinical practicum at participating clinical education centers. Clinical experience rotations for Practicum III include imaging of the adult and pediatric heart and vascular sonography. During this practicum, students will be assigned clinical competencies and objectives to complete.

ECHOCARDIOGRAPHY CLINICAL EDUCATION IV

Students are scheduled for clinical practicum at participating clinical education centers. Clinical experience rotations for Practicum IV include imaging of the adult heart, pediatric heart, and vascular sonography. During this practicum, students will be assigned clinical competencies and objectives to complete.

ECHOCARDIOGRAPHY CLINICAL EDUCATION V

Students are scheduled for clinical practicum at participating clinical education centers. Clinical experience rotations for Practicum V include imaging of the adult heart, pediatric heart, and vascular sonography. During this practicum, students will be assigned clinical competencies and objectives to complete.

EMBRYOLOGY OF THE HEART

This course will discuss the development of the cardiovascular system and the pediatric heart to include normal and abnormal anatomic development of the heart, physiology, hemodynamics, and basic congenital heart disease.

Students will become familiar with the pediatric echocardiography examination and protocol requirements. Students will take a written final exam.

PEDIATRIC ECHOCARDIOGRAPHY I

This course will discuss various types of congenital heart disease. Students will become familiar with the following congenital heart diseases: patent ductus arteriosus, atrial septal defect, ventricular septal defect, pulmonic stenosis, coarctation of the aorta, transposition of the great arteries, cardiomyopathies, inflow anomalies, outflow anomalies, double outlet right ventricle and double outlet left ventricle. Students will take a written final exam.

PEDIATRIC ECHOCARDIOGRAPHY II

This course will discuss various types of congenital heart disease involving both the pediatric and adult populations. Students will review pathologies learned in previous semesters and become familiar with additional congenital heart defects including: univentricular heart, right ventricular hypoplasia, left ventricular hypoplasia, total anomalous pulmonary venous return and coronary artery anomalies, conotruncal, anomalies, postoperative evaluations and complex combinations of previously discussed congenital heart defects. Students will take a written final exam.

SEMINAR IN ADVANCED MEDICAL IMAGING

The student will be exposed to normal anatomy and pathology cases combining diagnostic medical sonography, computed sonography, and magnetic resonance imaging. The student will also be exposed to techniques and protocols for obtaining 3D and 4D images of various anatomic structures. The student will gain an understanding how a diagnosis is made, and patients are managed based on findings from multiple imaging modalities.

SEMINAR IN MANAGEMENT, EDUCATION and RESEARCH

This course will discuss theories and techniques of health care management, education, and research. Management strategies and concepts will be discussed, and real-life case studies will be analyzed. Education theories and techniques as they specifically pertain to teaching in the allied health arena will be covered. Research methodology, basic research techniques and the unique role of the sonographer in research projects will be discussed. Problem solving strategies for scenarios in all three areas will be outlined.

SEMINAR IN PROFESSIONAL DEVELOPMENT

This course will familiarize the diagnostic medical sonography student with the history of the profession and professional societies associated with the field of diagnostic medical sonography. Students will learn how to be a professional and how to positively influence the field of diagnostic medical sonography. Students will also become familiar with resume creation and interviewing techniques.

SONOGRAPHIC PHYSICS AND INSTRUMENTATION

This course will enable students to become familiar with the physical principles governing the of medical ultrasound equipment. Emphases will be on diagnostic imaging systems. Students also will become acquainted with therapeutic devices, including shock wave as well as thermal delivery systems. Basic principles of acoustic transmission and reflection in tissues are covered at an elementary level. Design and performance of transducers, pulse-echo imaging equipment, Doppler and color flow equipment and physical therapy systems are emphasized. The physics leading to image artifacts is described, as are methods for evaluating performance of ultrasound devices. Finally, acoustical exposure measurements and levels from diagnostic equipment are discussed, as well as biological effects and risk.

SPECIAL PROCEDURES IN ECHOCARDIOGRAPHY

This course will discuss IAC lab accreditation, advanced 3D and strain imaging, invasive and intraoperative procedures, and artificial intelligence in echocardiography. Students will become familiar with these topics to prepare them as an entry level sonographer.

STRESS ECHOCARDIOGRAPHY

This course will discuss physiologic and pharmacological stress echocardiography, coronary artery disease, wall segment and coronary artery distribution, Doppler evaluation with stress echocardiography and ECG review. Students will become familiar with the clinical signs and symptoms, wall motion abnormalities, and applicable protocols for evaluation of coronary artery disease. Students will take both a written and practical final exam. There is a lab component.

VASCULAR SONOGRAPHY I

Hemodynamics of the arterial and venous vasculature will be discussed. Lower extremity venous normal and abnormal will be discussed. Extracranial and intracranial cerebrovascular anatomy, normal and abnormal will be discussed. Students will become familiar with the clinical symptoms and specific ultrasound protocols for normal and abnormal cases associated with lower extremity venous and cerebrovascular disease. Students will take both a written and practical final exam. There is a lab component.

VASCULAR SONOGRAPHY II

Hemodynamics of the arterial and venous vasculature will be discussed. Peripheral vascular direct and indirect lower extremity arterial normal and abnormal will be discussed. Upper extremity venous normal and abnormal will be discussed. Students will become familiar with the clinical symptoms and specific ultrasound protocols for normal and abnormal cases associated with peripheral vascular disease. Students will take both a written and practical final exam. There is a lab component.

VASCULAR SONOGRAPHY III

A review of hemodynamics, abdominal, penile, and transplant organ Doppler, and vascular statistics will be discussed. Students will become familiar with the clinical symptoms and specific ultrasound protocols for normal and abnormal cases associated with vascular disease involving the above areas of interest. Students will take both a written and practical final exam. There is a lab component.

Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography Option

Program Goals

It is the goal of the UWHC School of DMS Program Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography option to prepare competent entry-level general and vascular sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Graduates of the program will be able to utilize the mechanical equipment used by ultrasound departments to produce high-quality diagnostic sonograms.

Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography Objectives

Knowledge of cross-sectional and three-dimensional anatomy is critical to the performance and interpretation of ultrasound examinations, therefore the Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography curriculum stresses anatomy, physiology, hemodynamics, and pathology. In addition to anatomy, the knowledge of ultrasound physics is also critical to the performance of ultrasound examinations and the generation of diagnostic medical images. Students are required to take the course Medical Ultrasound Principles and Apparatus. The class teaches the fundamental physical principles upon which diagnostic medical ultrasound is based and in-depth explanations of how physics is manipulated by ultrasound equipment to create images.

The Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography curriculum covers ultrasound imaging in obstetrics and gynecology, evaluation of the abdomen, thyroid, scrotum, prostate, and neurosonography. The vascular section includes evaluation of the major blood vessels of the neck, brain, abdomen, and extremities. In addition to attending formal classes, students often have an opportunity to attend physician lectures and conferences on ultrasound-related topics.

Upon completion of the UWHC School of DMS Program the student will be able to:

- Conduct themselves in a courteous and professional manner while in the hospital and clinical environment.
- Identify and describe sonographic terminology and use the terminology in an effective manner.
- Employ the use of medical terminology and abbreviations pertinent to diagnostic medical ultrasound.
- Identify and perform appropriate nursing care procedures and techniques used in the general care of patients in various states of health and various conditions demanding special needs.
- Demonstrate knowledge of the physical principles of diagnostic medical ultrasound and their applications to the clinical environment.
- Describe the principles and applications of Doppler ultrasound.
- Manipulate the technical controls on the equipment used in the ultrasound department to produce an optimum image for diagnostic purposes.
- Record and process for display the images necessary for a diagnostic medical ultrasound examination.
- Identify the biological effects of diagnostic medical ultrasound and take the necessary precautions to avoid excessive exposure of ultrasound in patients.
- Demonstrate the appropriate skills in performing a quality assurance test.
- Demonstrate the ability to mentally transform gross anatomy to cross-sectional anatomy relative to diagnostic medical ultrasound.
- Demonstrate the skills necessary to perform an ultrasound examination of any abdominal and pelvic organs, the gravid uterus, neurosonography, superficial structures and vascular hemodynamics routinely examined in a diagnostic ultrasound department.
- Identify normal and pathological conditions on a sonogram of the abdominal and pelvic organs, the gravid uterus, neurosonography, superficial structures, and vascular structures routinely examined in the diagnostic medical ultrasound department.
- Assist the attending physician/sonographer in the differential diagnosis process of a pathological entity.
- Demonstrate the ability to maintain a sterile field while assisting with an invasive ultrasound study.

General Medical Sonographer Role as a Healthcare Professional

Diagnostic medical sonography uses ultrasound, or high frequency sound waves, to characterize and diagnose diseases in body organs and tissues. The use of ultrasound in medical diagnosis has become widespread in recent years. Among the parts of the body most commonly evaluated with ultrasound are the heart, blood vessels, abdominal organs, pelvic organs, and the gravid uterus.

The diagnostic medical sonographer is a health care professional who performs diagnostic ultrasound examinations under a physician's supervision. Sonographers are required to integrate medical knowledge of cross-sectional and three-dimensional anatomy, physiology, pathology, and ultrasound physics to imaging patients in the clinical setting. Sonographers work within the framework of an examination protocol where he/she must exercise judgment to tailor each examination to the individual patient's needs. The interaction between ultrasound and a patient's body tissues requires the constant adjustment of techniques and procedures during the examination. Therefore, the sonographer must be able to understand the interaction between ultrasound physics, anatomy, pathology, and equipment manipulation to produce diagnostic medical images that provide comprehensive information about the patient's specific pathology.

Most sonographers work in hospital-based radiology departments performing abdominal, pelvic, and vascular examinations or in cardiology (i.e. echocardiography) departments performing cardiac and vascular examinations in emergency, operating room, inpatient, and outpatient situations. However, vascular surgery departments and obstetric departments can also employ sonographers who perform specialized ultrasound examinations tailored to follow specific protocols needed in those specialties. Many sonographers prefer to work in outpatient clinics and mobile medical imaging services where ultrasound examinations are performed on a non-emergency basis. Non-clinical positions are available with medical imaging equipment manufacturers who employ sonographers to test ultrasound equipment and function as application specialists to teach new technologies to clinical sonographers.

Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography Standards

The school will accept as students, applicants who exhibit by past education, experience, and personal interview a high potential for success in diagnostic medical sonography. The grade point average shall be a minimum of 3.0 on a 4.0 scale in previous academic work. Faculty and staff employed by the University of Wisconsin Hospital & Clinics including the Manager of Education and Training for the Department of Radiology, PD, CEC, and lead workers in the Radiology Department Ultrasound Division and Cardiology Department shall serve on the admissions committee.

- Students will learn and understand concepts related to the art and science of diagnostic medical sonography and be able to apply them to clinical situations.
- Students will communicate effectively with patients and provide care for their physical, emotional, and educational needs.
- Students will learn to function and communicate effectively as an essential member of the diagnostic medical sonography team.
- Students will develop ethical and moral practices consistent with the institution's policies as well as the Code of Ethics upheld within the field of Diagnostic Medical Sonography.
- Students will develop critical thinking skills and will apply them in the classroom and the clinical situations. The PD will evaluate all course and clinical grades at the end of each semester. A minimum grade of "C" in all academic courses and clinical practices is the required standard.
- Students will demonstrate punctuality, dependability, initiative, and adaptability in their classroom and clinical performance.
- Graduates will successfully pass the ARDMS examinations.
- Graduates and employers will exhibit a high degree of satisfaction with the educational experience in postgraduate and employer surveys.
- Graduates will continue their education to remain abreast of new developments in diagnostic medical sonography.

Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography Course Schedule

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| <p><u>Junior Year Fall Semester</u> Introduction to Diagnostic Medical Sonography Abdominal Sonography I OB/GYN Sonography I Vascular Sonography I Sonography Clinical Education I</p> | <p><u>Senior Year Fall Semester</u> Abdominal Sonography IV Seminar in OB/Gyn/ Introduction to Fetal Echocardiography Vascular Sonography III – Abdominal Vasc. Sonography Clinical Education IV Introduction to Neurosonography</p> |
| <p><u>Junior Year Spring Semester</u> Sonographic Physics and Instrumentation Abdominal Sonography II OB/GYN Sonography II Vascular Sonography II Sonography Clinical Education II</p> | <p><u>Senior Year Spring Semester</u> Seminar in Advanced Medical Imaging Seminar in Management and Education Seminar in Professional Development Sonography Clinical Education V Introduction to Musculoskeletal Sonography</p> |
| <p><u>Junior Year Summer Semester</u> Abdominal Sonography III OB/GYN Sonography III Sonography Clinical Education III</p> | |

Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography Course Descriptions

NOTE: Course titles may vary based on the sponsor university, but content remains the same.

INTRODUCTION TO MUSCULOSKELETAL SONOGRAPHY

This course will introduce students to an array of musculoskeletal sonographic evaluations including anatomy, physiology and sonography protocols and procedures.

INTRODUCTION TO NEUROSONOGRAPHY

Anatomy, physiology, pathology, pathophysiology seen on normal and abnormal sonograms of the pediatric hip, neonatal brain, and neonatal spine will be discussed. Students will become familiar with the clinical symptoms, lab values and specific ultrasound protocols for normal and abnormal cases. Students will take a written final exam.

INTRODUCTION TO SONOGRAPHY

In this course the student will prepare for the new and challenging demands of sonography training in a hospital. Clinical policies and procedures are emphasized. Course content includes materials emphasizing personal adaptation skills and staff development issues, nursing procedures, ethics, and skills to become a better student. An overview of basic sonographic terminology, technique and equipment form the framework for future study. There is a lab component. A final written and practical exam is given. The student will have the opportunity to demonstrate their knowledge of sterile technique.

ABDOMINAL SONOGRAPHY I

Anatomy, physiology, pathology, and pathophysiology seen on normal and abnormal sonograms of the chest cavity, peritoneal and retroperitoneal spaces, aorta and mesenteric vessels, and the liver will be discussed. Students will become familiar with the clinical symptoms, lab values and specific ultrasound protocols for normal and abnormal cases. Students will take both a written and practical final exam.

ABDOMINAL SONOGRAPHY II

Anatomy, physiology, pathology, and pathophysiology seen on normal and abnormal sonograms of the kidneys, biliary system, pancreas, spleen, and interventional procedures will be discussed. Students will become familiar with the clinical symptoms, lab values and specific ultrasound protocols for normal and abnormal cases. Students will take both a written and practical final exam.



ABDOMINAL SONOGRAPHY III

Anatomy, physiology, pathology, and pathophysiology seen on normal and abnormal sonograms of the breast, thyroid, and scrotum will be discussed. Students will become familiar with the clinical symptoms, lab values and specific ultrasound protocols for normal and abnormal cases. Students will take both a written and practical final exam.

ABDOMINAL SONOGRAPHY IV

Anatomy, physiology, pathology, and pathophysiology seen on normal and abnormal sonograms of the adult prostate, penis, and gastrointestinal tract. Students will also learn about the anatomy, physiology, and pathophysiology of the normal and abnormal pediatric abdomen and neck. Students will become familiar with the clinical symptoms, lab values and specific ultrasound protocols for normal and abnormal cases. Students will take a written final exam.

OB/GYN SONOGRAPHY I

Anatomy, physiology, pathology, and pathophysiology seen on normal and abnormal sonograms of the female pelvis will be discussed. Students will become familiar with the clinical symptoms, lab values and specific ultrasound protocols for normal and abnormal cases. Students will take both a written and practical final exam. There is a lab component.

OB/GYN SONOGRAPHY II

This course will discuss embryologic development of the fetus and gestational development throughout pregnancy. During this course the student will learn anatomy of the fetus and ultrasound protocols in the first, second, and third trimesters. The course will discuss normal and abnormal findings in the first trimesters, normal and abnormal findings of the placenta, and normal anatomy of the second trimester. This course will also discuss multiple gestation pregnancies, maternal disease states impacting pregnancy, and protocol modification for the various disease states. Students will take a written final exam.

OB/GYN SONOGRAPHY III

This course will discuss abnormalities seen in a fetus during pregnancy. Students will become familiar with the sonographic appearance of fetal anomalies and their associated abnormalities, associated lab values, incidence, and prognosis. This course will discuss the impacts of fetal abnormalities on the amniotic fluid. Students will evaluate and develop critical thinking skills to evaluate fetal abnormalities seen on ultrasound. Students will take a written final exam.

SEMINAR IN OB/GYN SONOGRAPHY

This course will discuss the role of ultrasound in evaluating the fetus for various genetic syndromes and understanding inheritance patterns. This course will introduce students to fetal cardiac normal anatomy and congenital heart disease. The course will discuss embryology of the heart, the fetal echocardiography exam and protocols and congenital heart disease. This course also gives students a board review to assist in preparing to take the ARDMS OB/GYN specialty examination. Students will take a written final exam.

SEMINAR IN ADVANCED MEDICAL IMAGING

The student will be exposed to normal anatomy and pathology cases combining diagnostic medical sonography, computed sonography, and magnetic resonance imaging. The student will gain an understanding how a diagnosis is made, and patients are managed based on findings from multiple imaging modalities.

SEMINAR IN MANAGEMENT, EDUCATION and RESEARCH

This course will discuss theories and techniques of health care management, education, and research. Management strategies and concepts will be discussed, and real-life case studies will be analyzed. Education theories and techniques as they specifically pertain to teaching in the allied health arena will be covered. Research methodology, basic research techniques and the unique role of the sonographer in research projects will be discussed. Problem solving strategies for scenarios in all three areas will be outlined.

SEMINAR IN PROFESSIONAL DEVELOPMENT

This course will familiarize the diagnostic medical sonography student with the history of the profession and professional societies associated with the field of diagnostic medical sonography. Students will learn how to be a professional and how to positively influence the field of diagnostic medical sonography. Students will also become familiar with resume creation and interviewing techniques.

SONOGRAPHIC PHYSICS AND INSTRUMENTATION

This course will enable students to become familiar with the physical principles governing the of medical ultrasound equipment. Emphases will be on diagnostic imaging systems. Students also will become acquainted with therapeutic devices, including shock wave as well as thermal delivery systems. Basic principles of acoustic transmission and reflection in tissues are covered at an elementary level. Design and performance of transducers, pulse-echo imaging equipment, Doppler and color flow equipment and physical therapy systems are emphasized. The physics leading to image artifacts is described, as are methods for evaluating performance of ultrasound devices. Finally, acoustical exposure measurements and levels from diagnostic equipment are discussed, as well as biological effects and risk.

SONOGRAPHY CLINICAL EDUCATION I

Students are scheduled for clinical practicum at participating clinical education centers. Clinical experience rotations for Practicum I include abdominal imaging, OB/GYN imaging, and vascular sonography. During this practicum, students will be assigned clinical competencies and objectives to complete.

SONOGRAPHY CLINICAL EDUCATION II

Students are scheduled for clinical practicum at participating clinical education centers. Clinical experience rotations for Practicum II include abdominal imaging, OB/GYN imaging and vascular sonography. During this practicum, students will be assigned clinical competencies and objectives to complete.

SONOGRAPHY CLINICAL EDUCATION III

Students are scheduled for clinical practicum at participating clinical education centers. Clinical experience rotations for Practicum III include abdominal imaging, OB/GYN imaging and vascular sonography. During this practicum, students will be assigned clinical competencies and objectives to complete.

SONOGRAPHY CLINICAL EDUCATION IV

Students are scheduled for clinical practicum at participating clinical education centers. Clinical experience rotations for Practicum IV include abdominal imaging, OB/GYN imaging and vascular sonography. During this practicum, students will be assigned clinical competencies and objectives to complete.

SONOGRAPHY CLINICAL EDUCATION V

Students are scheduled for clinical practicum at participating clinical education centers. Clinical experience rotations for Practicum V include abdominal imaging, OB/GYN imaging and vascular sonography. During this practicum, students will be assigned clinical competencies and objectives to complete.

VASCULAR SONOGRAPHY I

Hemodynamics of the arterial and venous vasculature will be discussed. Lower extremity venous normal and abnormal will be discussed. Extracranial and intracranial cerebrovascular anatomy, normal and abnormal will be discussed. Students will become familiar with the clinical symptoms and specific ultrasound protocols for normal and abnormal cases associated with lower extremity venous and cerebrovascular disease. Students will take both a written and practical final exam. There is a lab component.

VASCULAR SONOGRAPHY II

Hemodynamics of the arterial and venous vasculature will be discussed. Peripheral vascular direct and indirect lower extremity arterial normal and abnormal will be discussed. Upper extremity venous normal and abnormal will be discussed. Students will become familiar with the clinical symptoms and specific ultrasound protocols for normal and abnormal cases associated with peripheral vascular disease. Students will take both a written and practical final exam. There is a lab component.

VASCULAR SONOGRAPHY III

A review of hemodynamics, abdominal, penile, and transplant organ Doppler, and vascular statistics will be discussed. Students will become familiar with the clinical symptoms and specific ultrasound protocols for normal and abnormal cases associated with vascular disease involving the above areas of interest. Students will take both a written and practical final exam. There is a lab component.

CLINICAL SITE INFORMATION

Clinical Sites and Supervision Policy

The length of clinical rotations and the clinical facilities included in the diagnostic medical sonography and echocardiography training programs are determined by School of DMS (See Tables 1 & 2). Students must participate in all clinical rotations mandated by the School of DMS. The PD and CEC provide clinical instructors at all clinical sites with constant updates regarding information covered in didactic classes that students are expected to apply to clinical training. Clinical instructors will evaluate students on their application of didactic information to clinical activities in the written evaluations that are sent to the CEC at the end of each clinical rotation. Students should contact the CEC with questions or concerns regarding their clinical grades.

Students at clinical sites shall not take the responsibility or place of qualified staff sonographers. Students are not to be paid for any clinical hours assigned by the UWHC School of DMS. The clinical instructors will implement the following guidelines in working with students:

- Until a student has successfully completed the scan lab proficiency and required clinical competencies for a given section, the clinical instructor shall use Direct Supervision in relation to the student. Direct supervision is defined as clinical instructor evaluation of the requisition, patient condition, and student performance for the duration of the exam. The clinical instructor must be physically present in the exam room while the student is scanning and review the examination with the student afterwards.
- After a student has successfully completed the scan lab proficiency and required clinical competencies for a given section, the clinical instructor, at their discretion and within the guidelines of the specific clinical site, may implement Indirect Supervision in relation to the student. Indirect Supervision is defined as having a clinical instructor within the immediate area to assist the student if needed. Under no circumstances should a student be assigned alone to an area. A clinical instructor should review all examinations with the student.

Use of Clinical Facility Resources

Students are only to use clinical resources, medical equipment, telephones, computers, and facsimile (FAX) machines for clinical use with the approval of a clinical instructor. If a student needs to make a personal phone call due to extenuating circumstances, they should ask to use a faculty office phone. Long distance phone calls are not to be made and billed to the hospital (except for punching in and out from the clinical site). Ultrasound machines and medical testing equipment will only be used during scheduled scanning times determined by the clinical instructor, PD, or CEC. All ultrasound examinations and medical tests performed by students are limited to requested examinations on patients while under the supervision of a clinical instructor during a scheduled clinical rotation. Utilizing clinical equipment on non-patients without permission of the clinical instructor, PD, or CEC is strictly prohibited by the School of DMS. Students who use clinical equipment on non-patients are subject to disciplinary action. Any unauthorized use of ultrasound machines, medical equipment, and other facility resources by students is strictly prohibited by the School of DMS. Students who use clinical equipment without authorization are subject to disciplinary action.

Clinical Exposure Precautions

Throughout clinical training, students will perform ultrasound examinations that may expose them to blood and body fluids. The School of DMS requires all students to follow Universal Precautions when working with all patients.

The following personal protection equipment should be used to protect students while in the clinical environment:

- Gloves should be worn when contact is made with a patient or patient's personal effects.
- Gloves should be worn when cleaning ultrasound machines, transducers, and other types of medical equipment in the examination room.
- Facial masks should be worn when there is a possibility that blood or body fluids may be splashed into the mucus membranes of the face (i.e., nose and mouth area).
- Eye protection should be worn when there is a possibility that blood / body fluids may splash into the eyes.
- Protective gowns should be worn when there is a possibility that blood or body fluids may be splashed onto the student's clothing.
- Gloves, facial masks, and gowns should be worn when working with patients under isolation precautions. The student should ask clinical instructors or other hospital/clinic personnel if there are questions about a patient's isolation status and which personal protective equipment is necessary.
- In the event of an exposure to blood or body fluids, students should immediately report the event to their clinical instructors. Clinical instructors will guide the student in the exposure protocol at their site.
 - The incident should be reported to the PD and CEC as soon as possible after the event.
 - Students should submit a copy of all documentation obtained from the employee health office at the clinical site to the PD and CEC as soon as possible.
 - Students will work with the PD and CEC on all follow-up documentation needed after the exposure incident.

Clinical Rotation Physical Requirements

(See Technical Standards and Physical Requirements of Sonographers)

Adult Cardiac / Vascular Sonography Clinical Sites

Students enrolled in the Adult Cardiac Sonography / Vascular Sonography option participate in clinical rotations that include time spent in echocardiography, cardiology (adult and pediatric) vascular sonography, and vascular surgery departments (Table 1). Only one or two students are assigned to each clinical site during each rotation to provide students with individualized attention. Students are exposed to a wide variety of procedures, examination methods, and ultrasound equipment. The clinical sites included in the curriculum perform various types of ultrasound examinations on different patient population including adult, pediatric, fetal, inpatients, and outpatients. This ensures that students are exposed to various types of ultrasound techniques and a wide range of patient pathologic conditions.

Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography Clinical Sites

Students enrolled in the Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography option participate in clinical rotations that include radiology, obstetric and gynecologic, vascular sonography, and vascular surgery departments (Table 2). Only one or two students are assigned to each clinical site during each rotation to provide students with individualized attention. Students are exposed to a wide variety of procedures, examination methods, and medical equipment. The clinical sites included in the curriculum perform various types of ultrasound examinations on different patient populations including adult, pediatric, fetal, inpatients, and outpatients. This ensures that students are exposed various types of ultrasound techniques as well as a wide range of patients and pathologic conditions.

Table 1 – Adult Cardiac / Vascular Sonography Clinical Sites

| Clinical Site Name | Clinical Contact | Site Address |
|---|--|---|
| American Family Children’s Hospital (AFCH) – Pediatric Cardiology Department | Jerrid Brabender RDCS 608-890-8117 | 1675 Highland Avenue Madison, WI 53792 |
| Aspirus Divine Savior Healthcare – Cardiology Department | Joshua Veglahn RDMS, RDCS 608-745-5020 or 608-745-5617 | 2817 New Pinery Road Portage, WI 53091 |
| Children’s Hospital of Wisconsin (CHOW) – Pediatric Cardiology Department: <i>Milwaukee, WI</i> | Sara Shreve RDCS 414-266-8662 | 8915 W. Connell Court Milwaukee, WI 53226 |
| Children’s Hospital of Wisconsin (CHOW) – Pediatric Cardiology Department: <i>Neenah, WI</i> | Briana Kennedy RDCS | 130 Second Street Neenah, WI 54956 |
| BHS – Beloit Memorial Hospital Cardiovascular Imaging | Linda Pechnik RDCS, RVT 608-364-5011 | 1969 W. Hart Drive Beloit, WI 53511 |
| FHC – Fort Memorial Hospital Cardiology Department | Cari Pfeifer RDCS 920-568-5425 or 920-568-5420 | 611 Sherman Avenue East Fort Atkinson, WI 53538 |
| Mercy Health Cardiology Department – Janesville | Karley Anderson RDCS 608-756-6876 | 1000 Mineral Point Ave. Janesville, WI 53548 |
| SSM Health Cardiology Department at St. Clare Hospital – Baraboo | Kaylyn Quade RDMS, RVT Amy Van Dyck RDCS 608-356-1477 or 608-356-1497 | 1626 Tuttle St. Baraboo, WI 53913 |
| SSM Health Cardiology Department at St. Agnes Hospital – Fond du Lac | Kim Mayer RDCS RDMS, RVT 920-926-4518 | 430 E. Division Street Fond du Lac, WI 54035 |
| SSM Health Cardiovascular Outpatient Center (Adult Lab) – Madison | Mike Brabender RDCS, RVT 608-260-2905 | 700 S. Park Street Madison, WI 53715 |
| SSM Health Cardiovascular Outpatient Center (Pediatric Lab) – Madison | Carl Ham RDCS | 700 S. Park Street Madison, WI 53715 |
| SSM Health Cardiology Department at St. Mary’s Hospital – Madison | Lindsey Percy RDCS, RVT 608-259-5417 | 707 South Mills Street Madison, WI 53715-0450 |
| SSM Health Cardiology Department at St. Mary’s Hospital – Janesville | Mike Brabender RDCS, RVT | 3400 E. Racine St. Janesville, WI 53546 |
| SSM Health at Monroe Clinic – Cardiology Department | Alexa Anderson RDCS, RDMS, RVT 608-324-2209 | 515 22nd Avenue Monroe, WI 53566 |
| UnityPoint Health – Meriter Hospital Cardiology Department | Cara Thompson RDCS 608-417-7359 | 202 South Park Street Madison, WI 53715-1599 |
| UW Health CV Imaging Lab at 1 S Park St Medical Center | Mary Chivington RDCS, RCCS, RVT 608-263-9014 | 1 South Park Street Madison, WI 53715 608-287-2818 |

| | | |
|---|--|---|
| UW Health CV Imaging at Arbor Gate Heart Care Clinic | | 2601 W. Beltline Hwy. Madison, WI 53713 Number TBD |
| UW Health CV Imaging Lab at East Madison Hospital (<i>formerly TAC</i>) | | 4602 Eastpark Blvd, Madison, WI 53718 608-263-9014 |
| UW Health CV Imaging Lab at Science Dr Medical Center (<i>formerly Research Park</i>) | | 621 Science Dr. Madison, WI 53711 608-265-7709 |
| UW Health CV Imaging Lab at Junction Rd Medical Center (<i>formerly West Clinic</i>) | | 451 Junction Road Madison, WI 53717 608-263-4341 |
| UW Health CV Imaging Lab at University Hospital (UH) | | 600 Highland Avenue Madison, WI 53792 608-263-9014 |
| UW Health at Swedish American Hospital – Cardiology Department | Ronda Hampton RCS, CCT 779-696-6163 | 1401 East State Street Rockford, IL 61104 |
| WSM Veterans Hospital – Cardiology Department | Maame Ado RDCCS, RVT 608-280-7003 or 608-256-1901, ext.11616 | 2500 Overlook Terrace Madison, WI 53705-2254 |
| WSM Veterans Hospital – Vascular Department | Tim Kennedy CCI, RVS 608-256-1901 ext: 12004 | 2500 Overlook Terrace Madison, WI 53705-2254 |



Table 2 – Abdominal Sonography - Extended/ Obstetrics and Gynecology / Vascular Sonography Clinical Sites

| Clinical Site Name | Clinical Contact | Site Address |
|--|---|--|
| Beloit Clinic | Alyssa Harrison, RDMS, RVT 608-364-2425 | 1905 Huebbe Parkway Beloit, WI 53511 |
| Beloit Hospital Ultrasound Department | Alyssa Harrison, RDMS, RVT General Lab: 608-364-5682 Vascular Lab: 608-364-5110 (Linda Pechnik, RDMS) Reception: 608-364-5249 | 1969 W. Hart Drive Beloit, WI 53511 |
| Divine Savior Healthcare | Carolyn Deeren RDMS, RVT RDMS, RVT 608-745-5022 or 608-745-5617 | 2817 New Pinery Rd. Portage, WI 53091 |
| Fort Memorial Hospital | Michelle Peters RDMS, RVT 920-568-5420 | 611 Sherman Ave. East Fort Atkinson, WI 53538 |
| SSM Health - Dean East Clinic Ultrasound Department | Ericha Johnson MS, RDMS, RVT 260-6230 | 1821 S. Stoughton Road Madison, WI 53716 |
| SSM Health - Dean Fish Hatchery Clinic Ultrasound Department | Ericha Johnson MS, RDMS, RVT 608-252-8360 | 1313 Fish Hatchery Rd. Madison, WI 53715 |
| SSM Health - Monroe Clinic | Lori Runkle RDMS, RVT 608-324-1338 | 515 22nd Avenue Monroe, WI 53566 |
| SSM Health- St. Mary's Hospital | Tara Pechan RDMS, RVT 608-258-6955 | 707 South Mills Street Madison, WI 53715-0450 |
| SSM Health- Waupun Memorial Hospital | Leah Buteyn RDMS (OB), RVT 920-324-6513 | 620 W. Brown Street Waupun, WI 53963 |
| UW Health at Swedish American Hospital | Nicole Sandoval, RDMS 815-489-4776 | 1401 E. State St Rockford, IL 61104 |
| UnityPoint Health- Meriter Medical Imaging | Amy Tatro (Manager) 608-417-7166 | 202 South Park Street Madison, WI 53715-1599 |
| UnityPoint Health- Meriter Center for Perinatal Care | Kelsey Doyle RDMS 608-417-6359 | 202 South Park Street Madison, WI 53715-1599 |
| UW Health 1 S. Park St. Medical Center | Carly Manz BS, RDMS, RVT 608-287-2060 | 1 South Park Street Madison, WI 53715 |
| UW Health Odana Road Clinic | Carly Manz BS, RDMS, RVT 608-287-2079 | 5618 Odana Rd. Madison, WI 53719 |
| UW Health Union Corners Clinic - General Imaging | Carly Manz BS, RDMS, RVT 608-287-2079 | 2402 Winnebago Street Madison, WI 53704 |
| UW Health Union Corners Clinic - OB/GYN | Michelle Straus, RDMS 608-287-2079 | 2402 Winnebago Street Madison, WI 53704 |
| UW Health 20 S. Park St. OB/GYN Department | Amy Nickels RDMS (Ab, Br), RVT 608-287-2833 | 20 South Park Street Madison, WI 53715 |
| UW Health East Madison Hospital | Mindy Williams BS, RDMS, RVT, RSMSK, MSK 608-440-6609 | 4602 East Park Blvd. Madison, WI 53718 |
| UW Health - American Family Children's Hospital | Dana Walker, BS, RDMS, RVT 608-890-7144 | 1675 Highland Ave. Madison, WI 53792 |
| UW Health Digestive Health Center | Dana Walker BS, RDMS, RVT 608-890-5050 | 750 University Row Madison, WI 53705 |



| | | |
|--|--|---|
| UW Health Science Drive Medical Center | Dana Walker, BS, RDMS, RVT 608-890-7689 | 621 Science Drive Madison, WI 53711 |
| UW Health Breast Center | Dana Walker, BS, RDMS, RVT 608-262-6787 | 600 Highland Avenue Madison, WI 53792 |
| UWHC Radiology | Dana Walker, BS, RDMS, RVT 608-262-5279 | 600 Highland Avenue Madison, WI 53792 |
| UW Health East Terrace Dr. Medical Center | Dana Walker, BS, RDMS, RVT 608-262-5279 | 5249 East Terrace Dr. Madison, WI 53718 |
| UW Health Cardiovascular Imaging at West Clinic | Mary Lee Chivington RDMS, RVT 608-263-4341 | 451 Junction Road Madison, WI 53717 |
| UW Health Junction Rd Medical Center - OB/GYN | Karen Karns RDMS (608) 265-7601 | 451 Junction Road, Madison WI 53717 |
| Watertown Regional Medical Center | Kendra Wilson RDMS, RVT 920-206-3070 (Center for Women's Health) 920-262-4488 (Hospital) | 125 Hospital Drive Watertown, WI 53098 |
| Wm S Middleton Veterans Hospital - Radiology Ultrasound Department | Julie Wuertzer-Wilde, RDMS 608-280-7070, ext. 17665 | 2500 Overlook Terrace Madison, WI 53705-2254 |
| Wm S Middleton Veterans Hospital - Vascular Lab | Tim Kennedy, RVT 608-256-1901, ext. 12004 | 2500 Overlook Terrace Madison, WI 53705-2254 |

Clinical Site Hours

Clinical site hours are generally 8:00am – 4:30pm. The table below describes the Echocardiography /Vascular and General /Vascular clinical sites that have specific or adjusted start and end times:

| Clinical Sites that are 7:30am – 4:00pm | |
|---|--------------------------------------|
| Echo Sites | General Sites |
| SSM Health Outpatient Centers – Madison | Beloit Health System – Hospital only |
| SSM Health Hospital – Madison | UW – Digestive Health Center |
| Unity Point–Meriter Cardiology | Unity Point–Meriter Medical Imaging |
| VAH – Echo Lab | Unity Point–Meriter Perinatology |
| VAH – Vascular Lab | VAH – Medical Imaging |
| | VAH – Vascular Lab |

| Clinical Sites that are 7:00am – 3:30pm | |
|--|-------------------------------------|
| Echo Sites | General Sites |
| SSM Health St. Agnes Hospital | SSM Health Waupun Memorial Hospital |
| Fort Memorial Hospital | |
| American Family Children's Hospital (Fridays ONLY) | |
| SSM Health Hospital – Madison (Fridays ONLY) | |

Clinical Sites that are 7:45am – 4:15pm

Watertown Regional Medical Center – Hospital/Women's Center (G/V only)



CLINICAL GRADING AND EVALUATION

Plan for Competency-Based Clinical Education

The UWHC campus serves as the sponsoring site for the Carroll University, Edgewood College, Marian University, University of Wisconsin – La Crosse, University of Wisconsin – Milwaukee and University of Wisconsin – Oshkosh School of Diagnostic Medical Sonography didactic and clinical portion of the Bachelor of Science in Medical Sonography.

The UWHC School of DMS offers a 22-month Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography option and a 22-month Echocardiography/Vascular Sonography option. The programs include didactic and clinical instruction in a format that integrates classroom teaching and hands-on clinical experience in the performance of sonography examinations. The school places great emphasis on clinical training in addition to a rigorous didactic curriculum.

Students adhere to a weekly schedule that includes two, eight-hour days of classes and two to four, eight-hour days of clinical training (depending on the semester). Some of the courses, during certain semesters, require a scan lab. On those days, the student will either be in clinic for a half a day or will not be in clinic. This again is semester-based.

Students prepare for clinical rotations by attending laboratory demonstrations of ultrasound equipment operation and patient examination methods. Scanning protocols are reviewed in didactic courses in both diagnostic medical sonography and echocardiography and demonstrated in scan labs that review protocols covered in class.

All students are required to attend scan labs. It is voluntary for a student to be scanned during these labs. Students are required to perform scan lab proficiency examinations in a laboratory setting with credentialed faculty before they are eligible to complete the clinical competency examinations required for graduation.

Clinical Grading

The UWHC School of DMS employs a “competency-based” approach to the clinical education of diagnostic medical sonography. Students must demonstrate skills and abilities that meet expectations outlined in the Program Objectives before they are eligible for graduation.

The Program Objectives devised by the PD and CECs are designed to ensure that students have the ability to perform ultrasound examinations at competent levels by the end of their clinical training. Students must demonstrate knowledge of current scanning techniques in the field of medical sonography and ultrasound equipment manipulation before entering careers in the allied health profession.

The students’ clinical performance will be evaluated using a set of criteria that incorporates data provided by clinical sites and review by the School of DMS PD and CEC. All the required clinical forms along with a complete description of correct use and deadlines may be found on the DMS Course web site (Canvas). The directions and deadlines contained on the DMS Course web site (Canvas) must be followed and it is the responsibility of the student to familiarize themselves with the contents of this web site. Failure to follow directions or meet deadlines for clinical paperwork will result in deductions and may adversely affect the student’s clinical grade.

Clinical Evaluation Process

Students are required to successfully complete clinical competency examinations at clinical education sites graded by sonographers that are credentialed in each specific modality. Students are required to complete proficiencies at the School of DMS, graded by appropriately credentialed faculty, in both the Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography and Adult Cardiac Sonography / Vascular Sonography programs prior to attempting clinical competencies.

Students will demonstrate to School of DMS faculty their ability to produce images of anatomic structures outlined by the scan lab objectives provided by the CEC during scanning laboratory periods. Students will then complete,

with a passing grade, a proficiency under the supervision of School faculty. Upon successful completion of each proficiency, students will be allowed to begin completion of their clinical competencies at their clinical sites.

- Completing all proficiencies are required to progress through the program. Proficiencies are pass/fail.
 - Grading rubrics for all proficiencies are found on Trajecsys. Faculty will evaluate performance based on the criteria given. A score will be calculated for pass/fail with 80% as the cutoff for passing. There is no grade associated with the proficiencies, proficiencies are a requirement for progression through the program.
 - If 80% is not earned on a proficiency the student will have to repeat the proficiency.
- If 80% is not earned on the second attempt at a proficiency an action plan will be created, and the student may be put on probation.
- At any point in a student's education the student may be asked by a clinical instructor or faculty member to re-demonstrate a proficiency in the lab at school. The student will repeat the proficiency with faculty evaluating performance based on the criteria given on the Trajecsys rubric. If a passing score (80%) of the proficiency is not earned an action plan will be created and student may be placed on probation.
- The above situations will be reviewed on a case-by-case basis.

Clinical instructors will observe the student during each scanning procedure undertaken at the facility. Students will successfully complete a set number of clinical competency examinations, under the supervision of the clinical instructors, prior to graduation. Clinical competencies will be scored automatically by the Trajecsys system and according to the following guidelines. Clinical competencies are scored using a weighted scale.

Competencies are scored on a scale of N/A to 4. A score of four is given when a student can demonstrate the structure "Without Assistance". The total points assigned are then taken out of the total points possible. The total points possible vary by competency, since each competency has a different number of required objectives. If a certain objective is not part of a clinical site's protocol, that objective may be marked N/A and that objective will not be counted in the total possible.

The final percentage of points attained out of points possible must be at least 80% for the competency to be accepted. Students who submit competencies that do not attain a grade of 80% or higher will be asked to repeat that competency.

Clinical evaluations grade the student's overall performance in the clinical setting. Registered sonographers complete the evaluations on Trajecsys. Clinical Evaluations are scored using a weighted scale.

- The student will be graded on objectives posted on Trajecsys with each objective receiving a score from excellent to poor. The resulting percentage must be at least 80% to be considered passing. Failing grades will result in clinical counseling sessions and disciplinary action according to the policy in the academic handbook.
- Evaluations are due every four weeks throughout all five semesters. In rotations where the student receives more than one evaluation for a four-week time period, the percentages of all submitted evaluations for that time period will be averaged for that four-week session. 5 points will be deducted from the student's average clinical evaluation grade if the evaluation is not submitted by noon on the due date. (Please refer to clinical course syllabus for specific due dates.)

Students are expected to abide by the Professional Behavior Requirements and Professional Behavior Code adopted by the School of DMS. Students who fail to adhere to the codes of professional and ethical conduct will be subject to disciplinary action. Students are expected to abide by the dress code outlined in the Professional Behavior Code adopted by the School of DMS when attending clinical training. Students who fail to adhere to the dress code will be subject to disciplinary action.

The student's clinical progress will be evaluated by the PDs, CEC, and dedicated Instructors, at mid-semester and end of the semester time intervals.

- Students will meet with the PD, and/or the CEC and/or Instructor every eight weeks while school is in session to discuss their progress in developing clinical skills, completion of clinical competencies, progress on protocol book, and review the clinical evaluations submitted by clinical instructors.
- Semester clinical grades will be determined by the PD, CECs, and Faculty at the end of the sixteen-week semester. For semesters 1-5, the student's semester grade will be based on an average of:
 - Time, attendance, and timecard sign-off completion
 - Clinical instructor evaluations completed
 - Completed clinical competency examination score average

PROFESSIONAL BEHAVIOR CODES AND POLICIES

Professional Conduct

Students enrolled in the UWHC School of DMS are expected to exhibit the highest standards of professionalism in academic and clinical settings. The discipline of diagnostic medical sonography requires its sonographers to maintain unquestionable academic integrity and ethical standards when working with patients in clinical settings. Intellectual honesty, responsibility, and personal integrity are required by healthcare professionals in current medical facilities. Students who display improper behavior or lack of ethical standards in either their didactic classes or clinical rotations are subject to disciplinary action that may result in expulsion from the School of DMS.

Academic Conduct

Academic conduct that will not be tolerated includes:

- Cheating on exercises, papers, and examinations.
- Plagiarism on written exercises, presentations, and papers.
- Facilitating plagiarism on written exercises, presentation, and papers.
- Disrespectful attitude towards didactic instructors and guest lecturers.
- Improper use of academic equipment (i.e. computers, internet access, video presentations, CD and DVD presentations, audio-visual equipment, library books and resources).
- Improper use of medical equipment (including ultrasound machines, vascular testing equipment, heart monitoring equipment, etc.)

Clinical Conduct

Conduct that will not be tolerated in the clinical setting includes:

- Completing official clinic reports and required paperwork without clinical instructors' approval.
- Disrespectful attitude towards patients and/or their families, clinical instructors, or clinical staff.
- Failing to follow HIPAA patient confidentiality laws.
- Falsifying attendance records, competency or evaluation forms or any other program information.
- Intentionally disregarding and/or disobeying instructions supplied by the clinical instructor during an examination, including:
 - Failing to follow the scanning methods appropriate to the examination being performed.
 - Failing to participate in an assigned examination.
 - Failing to cease scanning when directly told to stop by a clinical instructor.
 - Operating under the influence of drugs or alcohol
- Physically or verbally abusing or mistreating patients, their families, or clinical staff
- Sleeping or conducting personal business during clinic hours.
- Stealing hospital or college property.
- Using medical equipment (including ultrasound machines, vascular testing equipment, heart monitoring equipment, etc.) without the approval of a clinical instructor, PD, or CEC.

- Using medical equipment (including ultrasound machines, vascular testing equipment, heart monitoring equipment, etc.) to perform examinations on persons without an official request for a medical test or approval of the clinical instructor, PD, or CEC.
- Violation of UWHC Harassment Policy.
- Should a clinical site ask for a student to be removed from that site because of unsafe practices or unprofessional behavior, the PD and the faculty will convene with the student to review the dismissal from the site. Once the details are determined the student may be dismissed from the program or if a hearing from a selected committee will take place to review the incidence(s) that lead to the removal from the clinical site.

Clinical Course Policy – Clinical Probation / Behavioral Probation

The UWHC School of DMS establish minimum standards for undergraduate students enrolled in the Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography and Echocardiography/Vascular Sonography options. A student whose clinical course (Clinical Education I, Clinical Education II, Clinical Education III, Clinical Education IV, Clinical Education V) grade point average (GPA) falls below a 2.000 will be subject to the following academic actions:

- **Clinical Probation:** Imposed on students whose clinical course (Clinical Education I, Clinical Education II, Clinical Education III, Clinical Education IV, Clinical Education V) GPA falls below 2.000 at any time period in the program will be placed on clinical probation.
- **Cleared Probation:** Achieved when clinical course GPA increases to 2.000 or above.
- **Dropped from School of Diagnostic Medical Sonography:** Imposed on any student on clinical probation who fails to earn a semester clinical course GPA of 2.000 after additional clinical objectives have been given during the clinical probation time period. Also imposed on any student who is on clinical or academic probation OR a combination of the two, more than twice in any single academic year.
- **Reinstatement/Readmission:** A student dropped from School of Diagnostic Medical Sonography may contact their sponsor university to discuss academic options.

Clinical Course Policy – Academic Probation / Behavioral Probation

The UWHC School of DMS have established minimum standards for undergraduate students enrolled in the Abdominal Sonography - Extended/ Obstetrics and Gynecology Sonography / Vascular Sonography and echocardiography options. A student whose grade falls below a 2.000 in any course will be subject to the following academic actions:

- **Academic Probation:** Imposed on students whose course grade falls below 2.000 at any point in the program. The student on academic probation who is not able to achieve a course grade of a “C” (2.0) or better will be dismissed from the program.
- **Cleared Probation:** Achieved when the course grade increases to 2.000 or above.
- **Dropped from School of Diagnostic Medical Sonography:** Imposed on any student on academic probation who fails to earn a course grade of a “C” (2.0) or better. Also imposed on any student who is on either academic or clinical probation OR a combination of the two, more than twice in any single academic year.
- **Reinstatement/Readmission:** A student dropped from School of Diagnostic Medical Sonography may contact their sponsor university to discuss academic options.
- **Academic dishonesty will not be tolerated.** At NO time shall a student complete or change their grades under the login of a clinical instructor. This is grounds for probation or possible dismissal from the program.

Disciplinary Actions

The purpose of disciplinary actions is to establish a uniform policy on disciplinary procedures and to identify areas of application. The best working conditions prevail when students conduct themselves with respect and consideration for themselves, their co-workers, and their supervisors. Rules and regulations that are needed to provide for the safety, fairness, and quality of education of all students must be enforced to be effective.

The following three steps are followed in our disciplinary action policy: 1) Counseling, 2) Probation (Academic or Clinical), and 3) Dismissal.

1) Counseling is defined as an immediate remedy utilized by the faculty to correct a student's conduct, performance, attendance, attitude, etc. Counseling will always be held confidential and conducted in a positive and constructive function. During the counseling session, the student will be given a set of learning objectives or behaviors to work on. If additional learning objectives are indicated, the student will be given a due date to have this completed by.

2) Probation is defined as a period of time from (4 weeks for clinical probation) to a semester (academic probation), during which the student's conduct, attitude and educational achievements will be closely observed by the faculty and other supervisory personnel. Students who fail to respond to correcting their deficiencies during their probationary period will be subject to dismissal from the program. All incidences resulting in probation will be documented and will become part of the student's permanent record.

3) Dismissal is defined as an immediate termination of a student for severe acts of misconduct or poor performance. Reasons for dismissal include but are not limited to:

- Abusive treatment of patients or visitors
- Discrimination against anyone associated with the hospital because of race color or national origin
- Willful damage to hospital property
- Conduct likely to jeopardize the normal and efficient operation of the hospital
- Threatening, intimidating, or coercing other hospital personnel
- Unauthorized possession of any type of weapon on hospital premises
- Being under the influence of drugs, narcotics, or intoxicants while on duty
- Theft, pilfering, fraud, or other forms of dishonesty
- Insubordination or refusal to perform duties assigned
- Absence without cause or authorization
- Disorderly conduct or fighting on hospital premises
- Malicious gossip or derogatory remarks concerning anyone associated with the hospital
- Unauthorized disclosure of confidential information
- Falsifying of hospital records, including false recording of time worked
- Other forms of immoral, unethical, or grossly improper conduct

Dress Code Requirements

Students enrolled in the UWHC School of DMS are expected to be following the clinical dress code as stated by the UWHC Dress Code found on the U-Connect website. Students must wear their ID badges always. Students will follow the dress code for any non-UW Health sites when they are at those clinical rotations. Students are expected to dress appropriately and professionally. Students will maintain an acceptable level of personal hygiene and grooming standards that are conducive to healthcare professionals. Dress worn shall be clean, in good condition, fit appropriately, does not expose undergarments and is without extensive wrinkling. Students will limit jewelry to rings, necklaces, and earrings. Other types of facial jewelry are prohibited as they may be offensive to patients. Students will appropriately cover all visible body art (i.e. tattoos) as they may be offensive to patients. Hair should be clean and professional in appearance, hair color must remain natural or be used with a dye, tint, or bleach that reflects a natural hair color. Control of beards and mustaches will be coordinated by individual departments if they affect or interfere with job performance and/or safety. Strong smelling cologne, perfume, scented lotions and/or powders should not be worn. Any complaints regarding excessive fragrances will be quickly resolved by the leader in consultation with Employee Relations. Direct caregivers are not permitted to wear artificial nails (any nail other than the natural nail is considered an artificial nail. This includes acrylic nails which are adhered to the underlying natural nail, extensions, tips, gel overlays, resin wraps, and bindings). Refer to UW Health Clinical Policy 4.1.13, Hand Hygiene. Students that do not adhere to the dress code are subject to disciplinary action that may result in expulsion from the School of DMS.

Clinical

- Solid color navy blue scrubs to attend clinical rotations (other sites may require other attire).
- Closed-toed shoes should be worn to all clinical sites.
- In patient contact situations, long hair must be controlled to prevent contact with the patient, equipment, or supplies.

Didactic Classes, Presentations and Guest Lectures

This includes, but is not limited to didactic classes, student led presentations, case study presentations, educational demonstrations, and guest/physician lecture presentations. Any time the student is required to speak in front of their peers, faculty, or hospital/medical staff, these guidelines must be followed.

- No hats or hoods.
- All shirts with collars, business casual crewneck or V-neck shirts, blouses, golf and polo shirts, casual slacks, and trousers. Jeans are acceptable if they are of a dark wash with no holes.
 - Examples of inappropriate shirts include T-shirts, shirts with inappropriate slogans, tank tops, muscle shirts, camouflage, and crop tops.
 - Examples of inappropriate pants include shorts (except for walking-length shorts), camouflage, pants worn below the waist or hip line, and pants/jeans with holes.

Tips for Appropriately Using Social Networking Websites

Social networking websites provide unique opportunities for students to get to know one another, share experiences and keep in contact. As with any public forum, it is important that users of these sites are aware of the associated risks and act in a manner that does not embarrass the students, faculty, DMS Program, UWHC or the clinical affiliates of the UWHC-School of DMS. **It is important to ensure patient information is not publicly available.** The School of DMS has adopted the following guidelines to assist students in safely using these sites:

Personal Privacy

We recommend setting your profiles on social networking sites so that only those individuals whom you have provided access may see your personal information. We recommend evaluating photos of yourself that are posted to these sites and removing tags from photos that depict you in what may be construed as compromising situations. Be sure you are aware of the security and privacy options available to you at any sites where you post personal information. Keep in mind that privacy settings are not impervious, and information can be shared willingly and unwillingly with others, even with “friends only” access.

Protection of Patient Information

All students must follow all UWHealth policies regarding privacy, compute usage, and HIPAA. Comments made on social networking sites should be considered the same as if they were made in a public place. HIPAA rules apply online, and students may be held criminally liable for comments that violate HIPAA. Remember that simply removing the name of a patient does not make them anonymous. Family members or friends of that patient or other patients you are caring for may be able to determine who you are by referring to context.

Professionalism

Use of these sites can have legal ramifications. Comments made regarding care of patients or that portray you or a colleague in an unprofessional manner can be used in court or other disciplinary proceedings. Statements made under your profile are attributable to you and are treated as if you verbally made the statement in a public place. Keep in mind that photographs and statements are made potentially viewable by future employers. Some employers are now using social networking websites to check on potential employees as a means of a background check. Students may be subject to disciplinary actions within the School of DMS for comments that are either unprofessional or violate patient policy. Students must adhere to the Code of Ethics for the Profession of Diagnostic Medical Sonography. <https://www.sdms.org/about/who-we-are/code-of-ethics>

E-Mail Policy

Students will be assigned a UW Health email account upon the successful completion of onboarding requirements for the program. Students will be expected to check their UW Health email accounts regularly for updates and reminders. The UW Health email account will be the primary means of correspondence between the faculty, program support staff and the students. Students may email faculty at any time of day or night, with the understanding that faculty will not always respond right away or at all on weekends. DMS Faculty will respond to emails within 24 hours during weekdays, providing they are not on vacation. If students have an emergent issue please Tweet the appropriate DMS faculty member, CEC, or PD. The student will be fully responsible for any penalties associated with the failure to check their UW Health email account for updates and requirement reminders.

Twitter – Closed UWHC School of DMS Account

Twitter is used as a quick method of communication for our students and faculty. Students will only follow students and faculty that are currently associated with our program. Creation of a separate account is required, even if a student already has a personal Twitter account. Students will be instructed on how to complete this process during Orientation week. Twitter is utilized by students and DMS faculty for all the following, including but not limited to:

- Quick communication regarding clinical and didactic education.
- Students often share exciting news, like passing board exams.
- DMS faculty may Tweet students last minute information about classes, clinical, and school closure during inclement weather.

Twitter Guidelines:

Students must use Twitter as it is intended for our program. Appropriate hours to Tweet are defined as 6:00 am to 5:00 pm Monday through Friday. Students may Tweet instructors outside of this time frame if it is **emergent**. Urgent examples: sickness, late to clinical or class, or family emergency

Communication and Mental Health

Mental health concerns or stressful events may reduce a student's ability to participate in daily activities or diminish academic performance. Services are available to assist students with addressing these and other concerns they may be experiencing. Students can learn more about the broad range of confidential mental health services available on campus via **University Health Services (UHS)** at: <https://www.uhs.wisc.edu/mental-health/> UHS fees are included in all students' onboarding to the DMS program, therefore should reduce or deduct any cost to the student (depending on the service).

Mental Health Resources: <https://www.uhs.wisc.edu/prevention/suicide-prevention/mh-resources/>

Wellness at University Health Services: <https://www.uhs.wisc.edu/wellness/>

Students who are struggling or anticipate any impending challenges are encouraged to communicate this to the instructor in order to facilitate a discussion plan and timeline for success. Students may be permitted an extension on any assignments at the discretion of the instructor, within an appropriate timeline prior to the end of any semester. As future Sonographers entering a professional career, beginning a difficult conversation around mental health needs will assist in cultivating appropriate communication skills and healthy coping mechanisms for success.