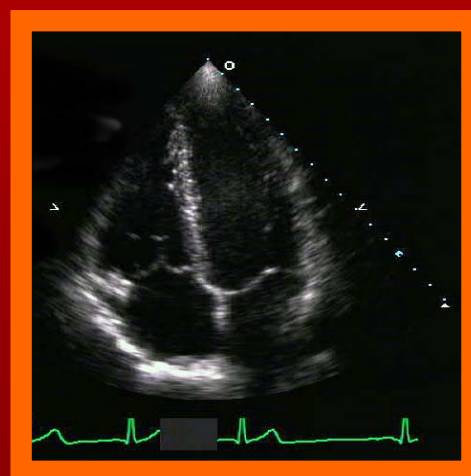
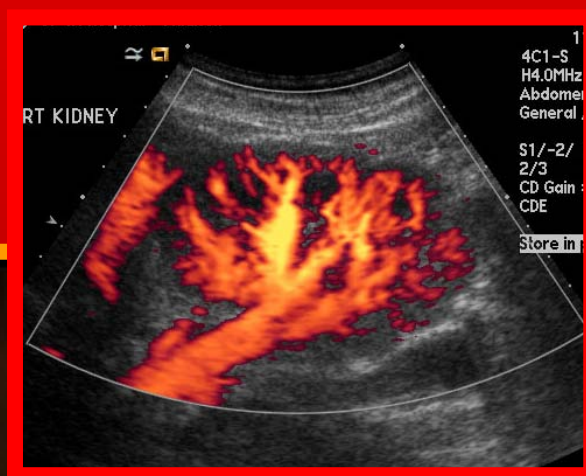


University of Wisconsin Hospital and Clinics  
*School of Diagnostic Medical Sonography*

# Program Handbook



*School of Diagnostic Medical Sonography*

**UW** Health

University of Wisconsin  
Hospital and Clinics

Revised October 2012

<b>INTRODUCTION .....</b>	<b>1</b>
<b><i>Welcome to the UW Hospital and Clinics School of Diagnostic Medical Sonography .....</i></b>	<b>1</b>
<i>Disclaimer .....</i>	1
<i>Contact Information .....</i>	1
<i>UW Hospital and Clinics .....</i>	2
<i>Mission Statement .....</i>	2
<i>Program Philosophy .....</i>	2
<i>School of Diagnostic Medical Sonography Faculty .....</i>	2
<b>INSTITUTIONAL POLICIES .....</b>	<b>3</b>
<i>Academic Advising .....</i>	3
<i>Admissions Policy .....</i>	3
<i>Admission - Committee .....</i>	3
<i>Admission - Qualifications .....</i>	3
<i>Admission - Requirements .....</i>	4
<i>Admissions Procedure .....</i>	5
<i>Timetable .....</i>	5
<i>Advisory Board Policy .....</i>	6
<i>Confidentiality .....</i>	6
<i>Grievance Policy .....</i>	6
<i>Faculty Grievance Policy .....</i>	6
<i>Harassment Policy .....</i>	6
<i>Infection Control Education Policy .....</i>	6
<i>Library Resources .....</i>	7
<i>New Employee Orientation Policy .....</i>	7
<i>Records and Release of Information Policy .....</i>	7
<i>Student Records .....</i>	7
<i>Student Withdrawal Policy .....</i>	7
<i>Technical Standards .....</i>	7
<i>Physical Requirements .....</i>	7
<b>ATTENDANCE AND LEAVE POLICIES .....</b>	<b>8</b>
<i>Timing in at Clinical Sites Policy .....</i>	8
<i>Incllement Weather Policy .....</i>	8
<i>Absence Request Policy .....</i>	8
<i>Acceptable Planned Absences .....</i>	9
<i>Approval for Early Dismissal Policy .....</i>	9
<i>Leave of Absence Policy .....</i>	9
<i>Disability Policy .....</i>	9
<i>Pregnancy Policy .....</i>	10
<i>Work Stoppage Policy .....</i>	10
<i>Vacation .....</i>	10
<i>Holiday Policy .....</i>	10
<i>Service - Work Policy .....</i>	10
<b>ACADEMIC POLICIES .....</b>	<b>11</b>
<i>Grading and Evaluation .....</i>	11
<i>Clinical Course Policy .....</i>	11
<i>Didactic Course Policy .....</i>	11
<i>Incompletes .....</i>	12
<i>Repeating Courses .....</i>	12
<i>Graduation Requirements .....</i>	12
<i>Accreditation .....</i>	12
<i>Attendance .....</i>	12

<b>Echocardiography Option .....</b>	<b>13</b>
<i>Program Goals.....</i>	13
<i>Echocardiography Objectives.....</i>	13
<i>Echocardiographer Role as a Healthcare Professional.....</i>	14
<i>Echocardiography Course Schedule.....</i>	15
<i>Student Awards.....</i>	15
<i>Echocardiography Course Descriptions.....</i>	16
<b>General Sonography Option .....</b>	<b>19</b>
<i>Program Goals.....</i>	19
<i>General Sonography Objectives.....</i>	19
<i>General Medical Sonographer Role as a Healthcare Professional.....</i>	20
<i>General Sonography Course Schedule.....</i>	21
<i>Student Awards.....</i>	21
<i>General Sonography Course Descriptions.....</i>	22
<b>CLINICAL GRADING AND EVALUATION .....</b>	<b>25</b>
<i>Plan for Competency-Based Clinical Education.....</i>	25
<i>Clinical Grading.....</i>	25
Table 1. Clinical Grading.....	27
*Final Clinical Practical Examinations.....	27
<i>Clinical Sites and Supervision Policy.....</i>	28
<i>General Sonography Clinical Sites.....</i>	28
Table 2. Echocardiography Program Clinical Sites.....	29
Table 3. General Sonography Program Clinical Sites.....	30
Use of Clinical Facility Resources.....	31
<i>Clinical Exposure Precautions.....</i>	31
<i>Rules for Specific Clinical Sites.....</i>	32
Table 4. Site-Specific On-Boarding Processes & Required Forms.....	33
<b>PROFESSIONAL BEHAVIOR CODE.....</b>	<b>36</b>
<i>Conduct.....</i>	36
<i>Clinical Conduct.....</i>	36
<i>Disciplinary Actions.....</i>	37
<i>Dress Code.....</i>	38
<i>Dress Code Requirements.....</i>	38
<i>Dress Code Violations.....</i>	38
<b>STUDENT INFORMATION.....</b>	<b>39</b>
<i>Financial Aid.....</i>	39
<i>Health Requirements and Health Insurance.....</i>	39
<i>Housing.....</i>	39
<i>Internet Information.....</i>	39
<i>Other Expenses.....</i>	40
<i>Student Life in Madison.....</i>	40
<i>Student Organizations.....</i>	40
<i>Textbooks.....</i>	40
<i>Tuition &amp; Fees.....</i>	40

# INTRODUCTION

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

The University of Wisconsin Hospital & Clinics (UWHC) is an award-winning academic medical center serving southern Wisconsin. Its educational philosophy focuses on providing high quality, integrated medical, nursing, and allied health programs where didactics, clinical experience, patient care, and research are stressed. The UWHC maintains 471 beds, more than 80 primary care and specialty clinics, 22 operating rooms, 6 intensive care units, and a 24-bed trauma life support center (TLC) critical care unit. The UWHC is one of only two organizations in Wisconsin with designated Level One adult and pediatric trauma centers.

The UWHC campus is the host site for the School of Diagnostic Medical Sonography and the program was started in 1980. The UWHC School of Diagnostic Medical Sonography (DMS) is affiliated with 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 the University of Wisconsin – Milwaukee, and their professional education at UWHC. Prospective students may apply to the Echocardiography/ Vascular Sonography or General/ Vascular Sonography educational programs. The echocardiography and general sonography options include didactic and clinical instruction in the areas of general sonography, 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 University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography does not discriminate on the basis of race, sex, handicap, religion, age, national origin, or veteran's status.

## **Contact Information**

Any questions or concerns regarding the admissions, education curricula, or administrative policies held by the University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography should be directed to the program director.

Bridgett Willey MS, RDMS, RVT, RDCS, RT(R)  
Program Director  
PH: 608-263-7635  
[bwilley@uwhealth.org](mailto:bwilley@uwhealth.org)

Sara Baker M.Ed., RDMS, RVT, RT(R)  
Clinical Education Coordinator  
General/ Vascular Sonography Option  
PH: 608-890-9186  
[sbaker2@uwhealth.org](mailto:sbaker2@uwhealth.org)

Michelle Cordio, BS, RDMS, RVT, RDCS, RT(R)  
Clinical Education Coordinator  
Echocardiography/ Vascular Sonography Option  
PH: 608-890-6493  
[mcordio@uwhealth.org](mailto:mcordio@uwhealth.org)

Ericha Johnson, BS, RDMS, RVT  
Sonography Instructor  
PH: 608-890-9651  
[EJohnson2@uwhealth.org](mailto:EJohnson2@uwhealth.org)

Jackie Luther, RDCS  
Dedicated Cardiac Instructor  
PH: 608-890-9651  
[jluther@uwhealth.org](mailto:jluther@uwhealth.org)

### Mailing Address:

School of Diagnostic Medical Sonography  
Department of Radiology  
University of Wisconsin Hospital & Clinics  
610 N. Whitney Way, Suite 440  
Madison, WI 53705

FAX: 608-263-9208

Webpage [www.uwhealth.org/ultrasoundschool](http://www.uwhealth.org/ultrasoundschool)

University of Wisconsin – Milwaukee  
College/Department of Health Sciences  
Clinical Laboratory Sciences Program  
Webpage [www.uwm.edu/chs](http://www.uwm.edu/chs)

## ***UW Hospital and Clinics***

### ***Mission Statement***

The mission of the University of Wisconsin Hospital and Clinics (UWHC) School of Diagnostic Medical Sonography is to educate students in the art and science of diagnostic medical sonography. Our graduates serve all 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.

Our school's mission is achieved when the graduate has successfully completed the program, achieving the outcomes, goals and objectives, as determined by the program standards. These specific outcomes, goals, objectives and standards follow in the UWHC School of Diagnostic Medical Sonography (DMS) Academic Policy Manual. The program's mission, goals, outcomes, and standards are evaluated annually by the faculty, department, and hospital administration, and the school advisory committee.

### ***Program Philosophy***

With a strong commitment to excellence, the UWHC School of Diagnostic Medical Sonography (DMS) is affiliated with 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 the University of Wisconsin – Milwaukee, and their professional education at UWHC. Students elect to pursue one of two options; Echocardiography/Vascular Sonography or General/Vascular Sonography.

The UWHC School of DMS also offers 24-month certificate options in general/vascular sonography and echocardiography/vascular sonography. The UWHC School of DMS is affiliated with the University of Wisconsin-Milwaukee to offer a baccalaureate degree. 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.

## ***UW Hospital and Clinics School of Diagnostic Medical Sonography Faculty***

### ***Echocardiography/ Vascular Sonography Option***

Peter S. Rahko, MD  
Medical Director

Bridgett J. Willey, MS, RDMS, RVT, RDCS, RT(R)  
Program Director

Michelle M. Cordio, BS, RDMS, RVT, RDCS  
Clinical Education Coordinator

Jackie Luther, RDCS  
Dedicated Cardiac Instructor

Carol Mitchell, PhD, RDMS, RDCS, RVT, RT(R)  
Pediatric Echo Instructor

James Zagzebski, PhD  
Medical Physics Instructor

### ***General / Vascular Sonography Option***

Mark A. Kliewer, MD  
Medical Director

Bridgett J. Willey, MS, RDMS, RVT, RDCS, RT(R)  
Program Director

Sara Baker, M.Ed., RDMS, RVT, RT(R)  
Clinical Education Coordinator

Ericha Johnson, BS, RDMS, RVT  
Sonography Instructor

James Zagzebski, PhD  
Medical Physics Instructor

# INSTITUTIONAL POLICIES

## **Academic Advising**

All students are assigned to an academic advisor upon admission to the University of Wisconsin – Milwaukee (UWM), and all new freshmen must meet with their advisor before they will be permitted to register for their first term. Academic advising prior to registration is also required for Academic Opportunity Center (AOC) students, and is strongly encouraged for all students. 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.

Once students are accepted into the UWHC School of Diagnostic Medical Sonography, the program director and clinical education coordinator serve as academic advisors in conjunction with the assigned advisor from the UWM.

## **Admissions Policy**

### **Admission - Committee**

1. Program Director for the UWHC School of Diagnostic Medical Sonography.
2. General/ Vascular Sonography Clinical Education Coordinator for the UWHC School of Diagnostic Medical Sonography.
3. Echocardiography/ Vascular Sonography Clinical Education Coordinator for the UWHC School of Diagnostic Medical Sonography.
4. General/ Vascular Instructor for the UWHC School of Diagnostic Medical Sonography.
5. Cardiac Instructor for the UWHC School of Diagnostic Medical Sonography.
6. Supervisor for the UWHC Department of Radiology Ultrasound Laboratory.
7. Supervisor for the UWHC Heart and Vascular Non-Invasive Imaging Laboratory.

### **Admission - Qualifications**

Admission to UWHC School of Diagnostic Medical Sonography is highly competitive and granted to a limited number of applicants each year. A diagnostic medical sonography student must be a mature, 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 in order 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, and diverse professional curriculum taught at UWHC School of Diagnostic Medical Sonography. Applicants must demonstrate an academic background that is strong in science and mathematics by completing the educational requirements as outlined on the following pages.
- **Prerequisite course work must be complete or in-progress by the application deadline with a passing grade. The applicant must have an overall GPA of at least 3.0 on a 4.0 scale.**
- Applicants must submit the \$50.00 application fee by check payable to the UWHC School of DMS by November 1<sup>st</sup> of the application year. The check should be submitted with all other application materials to the UW-M College of Health Sciences advising offices.
- 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 (required for applicants applying under prerequisite option 1) and patient care experience performed in nursing homes, hospitals, clinics, urgent care, or trauma centers.
- Applicants must provide proof of current CPR certification from either the AMA or the 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 UWHC School of DMS.
- **NOTE: CPR certification courses administered online will not be accepted.**

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 admission process is highly competitive due to the limited number of student positions available. Only those most qualified will be invited to proceed through each step of the selection process. Those applicants whose qualifications indicate the greatest potential for professional and personal development are selected for enrollment.

### **Admission - Requirements**

To qualify for admission into the University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography, candidates must be enrolled as an undergraduate student at UW-Milwaukee, in the College of Health Sciences AND meet **ONE** of the following prerequisites.

#### **PREREQUISITE #1**

**University of Wisconsin – Milwaukee College of Health Sciences major** and have completed the following patient care prerequisites:

- Certified Nursing Assistant (CNA)\*
- Current CPR Certification in Adult, Child, and Infant through the American Red Cross or the American Medical Association

#### **PREREQUISITE #2**

##### **Post-Baccalaureate Certificate Program in Diagnostic Medical Sonography**

Candidates who wish to apply to the University of Wisconsin-Milwaukee post-baccalaureate certificate program in Diagnostic Medical Sonography must comply with the following criteria:

- 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 College of Health Sciences. Refer to the UWM College of Health Sciences Radiologic Technology website for a list of clinical affiliate sites.
- Hold active certification as a registered Radiologic Technologist (ARRT credential RT(R)).

**PLEASE NOTE:** You must have been accepted to the Baccalaureate Program in Diagnostic Medical Sonography by UW-Milwaukee in order to be eligible to apply to the UWHC School of Diagnostic Medical Sonography. All application materials, including the \$50 application fee, should be submitted to the UW-Milwaukee College of Health Sciences advising office no later than November 1<sup>st</sup> of each application year.

For additional information please refer to the UW-Milwaukee College of Health Sciences.

Webpage <http://www.uwm.edu/chs>

Senior Advisor Susan Gruzis  
College of Health Sciences  
PO Box 413  
2512 E. Hartford Ave.  
Milwaukee, WI 53211-3161  
[scg@uwm.edu](mailto:scg@uwm.edu)  
PHONE: 414-229-6237  
FAX: 414-229-2206

**All applicants must complete the prerequisite course work specified by UW-Milwaukee or equivalent course work from other accredited, post-secondary educational institutions. Any course work completed at institutions other than UW-M, must be evaluated for equivalency by the advising department at UW-M. The complete list of required prerequisite courses may be found at: [http://www4.uwm.edu/chs/academics/health\\_sciences/bms\\_undergrad/diagnostic\\_med\\_sonography/#Diagnostic\\_Medical\\_Sonographer](http://www4.uwm.edu/chs/academics/health_sciences/bms_undergrad/diagnostic_med_sonography/#Diagnostic_Medical_Sonographer).**

**Additionally, all applicants must have a minimum cumulative GPA of 3.0 on a 4.0 scale on all post-secondary coursework to qualify for admission.**

**\*CNA WAIVER:** Applicants who feel they exceed the patient care requirement because of extensive direct patient care work experience may request a waiver of the CNA prerequisites. To do this, the applicant must send a letter to the School of DMS formally requesting a waiver. The request must include a description of the work done that the applicant believes satisfies the prerequisites, and documentation of the applicant's job duties and dates of employment. The Admissions Committee will vote and will notify the applicant of their decision. The Admissions Committee's decision is final.

## **ADMISSIONS PROCEDURE**

1. Applications that are complete and received by the application deadline are reviewed by a faculty committee, scored, and the applicant is notified of his/her eligibility for interview. Incomplete applications will not be processed.
2. 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 before June 1<sup>st</sup> prior to the program start date.
3. The University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography will notify applicants when the application is complete.
4. The interview will take place at the University of Wisconsin Hospital and Clinics. Interviews by the Admission Committee run approximately thirty minutes in length.
5. Those interviewed will receive an interview score. Applicants must receive an average interview score of 21 out of 28 possible points from all interviewers to be admitted into the UWHC School of DMS.
6. The Admissions Committee will select students for the upcoming enrollment period. The number of students selected for the general/ vascular sonography option, and for the echocardiography/ vascular sonography option will vary between 6 and 8, for each option, per year.
7. All applicants will be notified in writing whether or not they have been accepted into the program.
8. If accepted, the applicant is required to confirm or decline acceptance by the date stated in their acceptance letter. Accepted applicants not wishing to attend should notify the school immediately.
9. Students accepted into the program will receive additional information detailing their orientation, clinical rotations, and academic course schedules.
10. 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.

11. Applicants accepted to the UWHC School of Diagnostic Medical Sonography must submit a **non-refundable \$100.00** enrollment fee to hold their place in the class for which they are accepted. The enrollment fee will be applied towards the first year clinical lab fees.

## **TIMETABLE**

- **Applicants must submit all materials to UWM by November 1<sup>st</sup> of each application year.**
- Qualified applicants will be notified for an interview no later than **March 1<sup>st</sup> of each year.**
- Applicants will be notified regarding acceptance no later than **April 1<sup>st</sup> of each year.**
- New Student Orientation begins **on the first Tuesday after Labor Day of each academic year.**
- The University of Wisconsin Hospital and Clinics School of DMS follows the University of Wisconsin – Milwaukee Academic Timetable.



## **Advisory Board Policy**

The advisory board is made up of the Program Director, Clinical Education Coordinators, Medical Directors, a student representative from each class, clinical instructors from each site with an active affiliation agreement and one member from the general public.

The purpose of this board is to:

- Discuss changes in department and/or school policies and procedures
- Discuss problems students may have concerning their functioning in the department
- Discuss personnel problems concerning staff, students, physicians and other departments relating to the educational process
- Review academic and clinical education experiences
- Advise regarding curricular changes and additions

The advisory board shall meet two times per year.

## **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 for review on U-Connect and in the Program Director's office.

## **Grievance Policy**

In the event that a student wishes to appeal a decision of the faculty of the UWHC School of Diagnostic Medical Sonography for Academic or Disciplinary reasons, the following policy governs the process of student appeal or grievance procedure:

1. Within 21 days of the faculty decision, the student must submit in writing a request of formal appeal to the Chair of the Department of Radiology and the Program Director of the School of Diagnostic Medical Sonography. In the formal appeal the student must explain in which respects the decision is claimed to be arbitrary or unreasonable.

2. Within five working days after receipt of this formal appeal, the chairman 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.
3. 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.
4. 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 Diagnostic Medical Sonography faculty are employees of the UWHC. The Faculty follows the UWHC Employee Grievance Policy. This policy is available for review in the Program Director's office and on U-Connect.

## **Harassment Policy**

The UWHC School of Diagnostic Medical Sonography students are to follow the UWHC policy on harassment. Policies are available for review on U-Connect and in the Program Director's office.

## **Infection Control Education Policy**

All UWHC School of Diagnostic Medical Sonography 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 Diagnostic Medical Sonography have full access to all UW-Milwaukee 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 Diagnostic Medical Sonography will participate in New Employee Orientation (NEO). The UWHC School of Diagnostic Medical Sonography follows the UWHC New Employee Orientation Policy. This is available on U-Connect and in the program director's office.

## **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 UW-Milwaukee. Students must follow the transcript request policy at UW-Milwaukee 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 Program Director.

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 kept in the offices of the Program Director and Clinical Education Coordinator. Inspection of the student's records by an individual student will be permitted by appointment with the Program Director or Clinical Education Coordinator.

## **Student Records**

All student records will be maintained in perpetuity. The past five 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 Program Director written notice stating the reason for withdrawal and giving an effective date. Failure to follow proper procedures will result in dismissal.

## **Technical Standards Physical Requirements**

**Applicants should be aware that:**

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

# ATTENDANCE AND LEAVE POLICIES

## **Timing in at Clinical Sites Policy**

Clinical hours for students are 8am to 4:30pm Monday, Wednesday, and Friday. At the discretion of the Program Director or Clinical Education Coordinator, these hours may, on occasion, be modified so that students may attend an educational conference or to accommodate certain clinical sites. (See "Rules for Specific Clinical Sites")

Students may not be absent during a clinical day unless there is a medical or personal emergency or illness. An excused absence will require documentation of the medical or personal emergency or illness. An illness will require a doctor's note. If a student is going to absent for any reason, he/she must contact the Clinical Education Coordinator and the clinical site. Table 1 and 2 provide contact information for all clinical sites. Failure to do 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 clinical evaluation 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.

Students are required to time 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 time in via the phone belonging to the clinical site using the Time Call system when they are at sites that are not UWHC affiliates. The Time Call number is (608) 265 – 6500. When you call in, you must follow the prompts for a proper use. Specific directions for this system will be handed out in orientation. The Time Call 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 email and/or call the appropriate Clinical Education Coordinator immediately.

If a student does not punch in or out on a clinical day, the student needs to contact the appropriate Clinical Education Coordinator to enter in the correct time. If the student contacts the Clinical Education Coordinator before 0830 for a missed punch in, or by 1700 for a missed punch out on the same day that it occurred, no point penalty will be given. Failure to do this will result in a 5 point deduction from the clinical evaluation.

Except when approved for early dismissal by their 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 Clinical Education Coordinator or Program Director at the time of the occurrence to be considered excused. (see Approval for Early Dismissal Policy)

## **Inclement Weather Policy**

In the event of inclement weather severe enough to cause Madison Public Schools to close, UWHC School of DMS students will **not** need to attend courses or clinical rotations. (Please refer to your local news agency for school closing information.) In the event that Madison Public Schools are not closed but a student has concerns about the safety of driving to an outlying clinical site, the student must call and speak to the clinical education coordinator regarding alternative clinical placement for the day.

## **Absence Request Policy**

In the event that a student has a planned absence or is absent due to emergency or illness, all students must fill out an Absence Request Form. For a planned absence, the student must submit this form to their clinical coordinator prior to the absence. Forms may be submitted via email, fax, or by hand-delivery to the clinical education coordinator at the program offices at 610 N. Whitney Way, Suite 440. The Absence Request form can be found under the College of Allied Health Sciences Diagnostic Medical Sonography course shell (under heading 6) on D2L.

### **Acceptable Planned Absences**

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

All requests will be reviewed by the clinical education coordinator and will be determined on a case-by-case basis.

### **Approval for Early Dismissal Policy**

In the event that a student is dismissed earlier than one half hour prior to the required end time (anytime before 4pm\*), the student will need to report to the School of DMS office and will be engaged in a learning activity (additional scanning time, didactic assignment, etc.). The students will need to complete and submit an Approval for Early Dismissal form to their Clinical Education Coordinator as well as either call or email the Clinical Education Coordinator notifying that the student has been dismissed early. Failure to complete any of the above requirements will result in a 5 point deduction from the clinical evaluation for each occurrence.

#### **Early Dismissal At or After 4pm:**

In the event that a student is excused to leave clinical rotations at or after 4pm but prior to 4:30pm, the student must complete an Approval for Early Dismissal form and have it signed by their clinical instructor. Forms must be submitted to the clinical education coordinator the same day as the early dismissal, and may be submitted via email, fax, or by hand-delivery to the program offices at 610 N. Whitney Way, Suite 440. The Early Dismissal form can be found under the College of Allied Health Sciences Diagnostic Medical Sonography course shell (under heading 6) on D2L. Failure to complete any of the above requirements will result in a 5 point deduction from the clinical evaluation for each occurrence.

*\*(See "Rules for Specific Clinical Sites")*

### **Leave of Absence Policy**

In the event that a student needs to take a leave of absence 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 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.

### **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. In the event that a student's certification expires during the course of the program, that student will not be allowed to perform clinical rotations, effective immediately. The student will need to make arrangements to attend a renewal or recertification course as soon as possible and will need to make arrangements with their clinical coordinator 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**

In the event that 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 Program Director. Without written notification, the student is not considered pregnant.

Once written notification is received a counseling session will be held with a Medical Physicist to explain radiation exposure risks, NRC Guidelines, and additional monitoring practices which will be initiated immediately.

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.

Student is to be re-admitted only after physician's approval.

Re-entry of the student is evaluated on an individual basis.

Adjustment of tuition fees will follow the tuition refund policy.

## ***Work Stoppage Policy***

In the event that the University of Wisconsin Hospital and Clinics 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 Diagnostic Medical Sonography will temporarily cease operation until such time as the requirements of clinical education by the Joint Review Committee on Diagnostic Medical Sonography 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.

## ***Vacation Policy***

Students enrolled in the University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography will have scheduled semester breaks. The University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography follows the University of Wisconsin – Milwaukee academic time table. Vacation time will not be granted to students while UWHC School of DMS classes are in-session.

## ***Holiday Policy***

The following days are official UWHC School of DMS Holidays.

January 1  
Martin Luther King Day  
Memorial Day  
July 4  
Labor Day  
Thanksgiving Day  
The day after Thanksgiving Day  
December 24  
December 25  
December 31

## ***Bereavement Policy***

Students will be granted up to three days funeral leave for the death of an immediate family member. The immediate family shall be considered to be the husband or wife, parents, sibling, children, grandparents, mother-in-law, father-in-law, stepparents, stepbrothers, stepsisters, half-brothers, or half-sisters. In the event that another relative would hold the same close relationship, special approval granting leave of absence may be acquired from the Program Director and the Clinical Education Coordinator. Students have to fill out an absence request form when taking time off for bereavement purposes.

## ***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. Please refer to the UW-Milwaukee Academic Calendar at [www.uwm.edu](http://www.uwm.edu), for exact dates of semester breaks.

# ACADEMIC POLICIES

## Grading and Evaluation

### Academic Standards – Clinical Course Policy

The University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography has the following grading scale in place for all clinical and academic courses:

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

It is the policy of the school to not round grades up.

The University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography establishes minimum standards for undergraduate students enrolled in the general sonography and echocardiography options. A student whose clinical course (Clinical Education I, Clinical Education II, Clinical Education III, Clinical Education IV, Clinical Education V, Clinical Education VI) 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, Clinical Education VI) 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 UW-Milwaukee student dropped from School of Diagnostic Medical Sonography may contact the University of Wisconsin-Milwaukee to discuss academic options. A non-UW-Milwaukee student may re-apply for the following academic course year.

### Academic Standards – Didactic Course Policy

The University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography has the following grading scale in place for all clinical and academic courses:

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

It is the policy of the school to not round grades up.

The University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography have established minimum standards for undergraduate students enrolled in the general 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 UW-Milwaukee student dropped from School of Diagnostic Medical Sonography may contact the University of Wisconsin-Milwaukee to discuss academic options.

### **Academic Standards - Incompletes**

You may be given an incomplete if you have carried a subject successfully until near the end of the semester but, because of illness or other unusual and substantiated cause beyond your 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 you prove to the instructor that you were prevented from completing the course requirements for just cause as indicated.

Students enrolled in the University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography 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.'

### **Academic Standards – Repeating Courses**

Students enrolled in the University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography 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.

### **Academic Standards – Graduation Requirements**

Students enrolled in the University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography must fulfill the following requirements:

1. *Complete all didactic courses with a letter grade of 'C' or better.*
2. *Complete all clinical competencies with a letter grade of 'C' or better.*
3. *Complete all clinical rotations with a grade of 'C' or better.*
4. *Complete all clinical courses with a letter grade of 'C' or better.*
5. *All tuition and fees are paid in full.*
6. *All library materials are returned.*
7. *All missed time must be made up.*

### **Accreditation**

The University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) [www.caahep.org](http://www.caahep.org).

### **Attendance**

Students are expected to attend all classes and clinical rotations. In case of emergency the student will need to notify the program director, clinical education coordinator 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.

### **Certification**

University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography graduates are eligible to take certification examinations offered by the American registry of Diagnostic Medical Sonographers (ARDMS).

## ***Echocardiography Option***

### ***Program Goals***

It is the goal of the UWHC School of Diagnostic Medical Sonography Program Echocardiography Option to produce highly qualified echocardiographers who function in a competent fashion in meeting the health care needs of the patient. 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.

### ***Echocardiography 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," taught by faculty from the University of Wisconsin Department of Medical Physics. 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 echocardiographers 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 Diagnostic Medical Sonography Program the student will be able to:

1. Conduct themselves in a courteous and professional manner while in the hospital and clinical environment.
2. Identify and describe sonographic terminology and use the terminology in an effective manner.
3. Employ the use of medical terminology and abbreviations pertinent to diagnostic medical ultrasound.
4. 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.
5. Demonstrate knowledge of the physical principles of diagnostic medical ultrasound and their applications to the clinical environment.
6. Describe the principles and applications of Doppler ultrasound.
7. Manipulate the technical controls on the equipment used in the ultrasound department to produce an optimum image for diagnostic purposes.
8. Record and process for display the images necessary for a diagnostic medical ultrasound examination.
9. Identify the biological effects of diagnostic medical ultrasound and take the necessary precautions to avoid excessive exposure of ultrasound in patients.
10. Demonstrate the appropriate skills in performing a quality assurance test.
11. Demonstrate the ability to apply knowledge of cross-sectional anatomy to diagnostic echocardiography ultrasound images.
12. Describe the process of imaging the heart and great vessels utilizing diagnostic ultrasound.
13. Describe the principles and applications of Doppler ultrasound.
14. Demonstrate the skills necessary to perform and echocardiogram of the adult heart and pediatric heart.
15. Identify normal and pathological conditions on an echocardiogram.
16. Assist the attending physician/sonographer in the differential diagnosis process of a pathological entity.
17. Describe the principles and applications of stress echocardiography.
18. Describe the principles and applications of transesophageal echocardiography.
19. 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 patients needs. The interaction between ultrasound and a patient's body tissues requires the constant adjustment of techniques and procedures during the course of the examination. Therefore, the echocardiographer 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 echocardiographers 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**

1. 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 Program Director, Clinical Education Coordinator, and lead workers in the Radiology Department Ultrasound Division and Cardiology Department shall serve on the admissions committee.
2. 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.
3. Students will communicate effectively with patients and provide care for their physical, emotional, and educational needs.
4. Students will learn to function and communicate effectively as an essential member of the diagnostic medical sonography team.
5. 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.
6. Students will develop critical thinking skills and will apply them in the classroom and the clinical situations. The Program Director 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.
7. Students will demonstrate punctuality, dependability, initiative, and adaptability in their classroom and clinical performance.
8. Graduates will successfully pass the ARDMS examinations.
9. Graduates and employers will exhibit a high degree of satisfaction with the educational experience in postgraduate and employer surveys.
10. Graduates will continue their education to remain abreast of new developments in diagnostic medical sonography.

## ***Echocardiography Course Schedule***

### **Junior Year Fall Semester**

Introduction to Sonography  
Introduction to Fetal Echocardiography  
Cardiovascular Principles I  
Vascular Sonography I  
Echocardiography Clinical Education I

### **Junior Year Spring Semester**

Medical Ultrasound Principles and Apparatus  
Embryology of the Heart  
Adult Echocardiography I  
Vascular Sonography II  
Echocardiography Clinical Education II

### **Junior Year Summer Semester**

Pediatric Echocardiography I  
Adult Echocardiography II  
Echocardiography Clinical Education III

### **Senior Year Fall Semester**

Adult Echocardiography III  
Pediatric Echocardiography II  
Vascular Sonography III  
Stress Echocardiography  
Echocardiography Clinical Education IV

### **Senior Year Spring Semester**

Seminar in Advanced Medical Imaging  
Seminar in Management and Education in  
Medical Imaging  
Seminar in Professional Development  
Echocardiography Clinical Education V

### **Senior Year Summer Semester**

Transesophageal Echocardiography  
Echocardiography Clinical Education VI

### ***Student Awards***

The John Parks Award is an annual award presented to the students with the highest overall grade in the general/ vascular sonography and echocardiography/ vascular 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 general/ vascular and echocardiography/ vascular options.

Each year the graduating students are asked to vote for an outstanding clinical educator in each discipline (General/ Vascular and Echo/ Vascular). The clinical educators selected by the students are awarded the Gregory L. Spicer Outstanding Clinical Educator Award by the graduating class.

# ***Echocardiography Course Descriptions***

## **INTRODUCTION TO SONOGRAPHY**

### **Course Description:**

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. Students not passing this course will need to retake this course prior to continuing on in the Diagnostic Medical Sonography submajor.

## **ADULT ECHOCARDIOGRAPHY I**

### **Course Description:**

This course will discuss cardiac anatomy and physiology along with prosthetic valves, diastology, and cardiac valvular pathology seen on echocardiograms in the adult population.

## **ADULT ECHOCARDIOGRAPHY II**

### **Course Description:**

This course will discuss cardiac pathology seen on echocardiograms in the adult population, to include cardiomyopathies (hypertrophic, dilated, restrictive), pericardial disease, endocarditis, and cardiac masses.

## **ADULT ECHOCARDIOGRAPHY III**

### **Course Description:**

This course will discuss cardiac anatomy and pathology as it is seen on echocardiography. This course will focus on intraoperative cardiac ultrasound, congenital heart disease in the adult, and guidance for invasive procedures and contrast echocardiography.

## **CARDIOVASCULAR PRINCIPLES**

### **Course Description:**

This course will discuss cardiovascular anatomy, ultrasound image orientation, scan planes, routine views, sonographic anatomy, the normal ultrasound exam protocol for the echocardiogram, cardiac physiology, mechanical events, left ventricle function indicators, timing of mitral and aortic flow, auscultation, phonocardiography, hemodynamics and Doppler applications to echocardiography, spectral Doppler Measurements, Indirect measurements, Doppler Methods and Formulas, Right Heart Pressures, and echocardiography findings in the following disease states; aortic stenosis, aortic regurgitation, mitral stenosis, mitral regurgitation, concepts of dP/dt, index of myocardial performance, evaluation of LV diastolic filling and hypertrophic cardiomyopathy assessment. Students will complete both a didactic and practical final exam.

## **ECHOCARDIOGRAPHY CLINICAL EDUCATION I**

### **Course Description:**

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

## **ECHOCARDIOGRAPHY CLINICAL EDUCATION II**

### **Course Description:**

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

## **ECHOCARDIOGRAPHY CLINICAL EDUCATION III**

### **Course Description:**

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

### **ECHOCARDIOGRAPHY CLINICAL EDUCATION IV**

#### **Course Description:**

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 technology. During this practicum, students will be assigned clinical competencies and objectives to complete.

### **ECHOCARDIOGRAPHY CLINICAL EDUCATION V**

#### **Course Description:**

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 technology. During this practicum, students will be assigned clinical competencies and objectives to complete.

### **ECHOCARDIOGRAPHY CLINICAL EDUCATION VI**

#### **Course Description:**

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

### **INTRODUCTION TO FETAL ECHOCARDIOGRAPHY**

#### **Course Description:**

Advanced study of the fetal heart to include normal anatomy and congenital heart disease. This course will cover embryology of the heart, the fetal echocardiography exam and protocols and congenital heart disease. Exposure measurements and levels from diagnostic equipment are discussed, as well as biological effects and risk.

### **EMBRYOLOGY OF THE HEART**

#### **Course Description:**

This course will discuss development of the cardiovascular system.

### **PEDIATRIC ECHOCARDIOGRAPHY I**

#### **Course Description:**

This course will introduce the student echocardiographer to various types of congenital heart disease. The types of congenital heart disease to be discussed in this course are; Patent Ductus Arteriosus (PDA), atrial septal defect (ASD), ventricular septal defect (VSD), pulmonic stenosis (PS), coarctation of the aorta, transposition of the great arteries (TGA), double outlet right ventricle (DORV) and double outlet left ventricle.

### **MEDICAL ULTRASOUND PRINCIPLES AND APPARATUS**

#### **Course Description:**

The purpose of this course is to enable students to become familiar with the physical principles governing the of medical ultrasound equipment. Emphases will be on diagnostic imaging systems, but 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.

### **PEDIATRIC ECHOCARDIOGRAPHY II**

#### **Course Description:**

This course will introduce the student echocardiographer to various types of congenital heart disease. The types of congenital heart disease to be discussed in this course are; univentricular heart, right ventricular hypoplasia, left ventricular hypoplasia, inflow anomalies, outflow anomalies, total anomalous pulmonary venous return and coronary artery anomalies, conotruncal anomalies, abnormalities within the cardiac chambers, proximal vessels and thorax, cardiomyopathies, postoperative evaluations and complex combinations of previously discussed congenital heart defects.

### **TRANSESOPHAGEAL ECHOCARDIOGRAPHY**

#### **Course Description:**

This course will discuss the indications, utility, limitations and technical procedures related to transesophageal echocardiography.

### **VASCULAR SONOGRAPHY I**

#### **Course Description:**

Peripheral Vascular direct and indirect arterial and 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.

### **VASCULAR SONOGRAPHY II**

#### **Course Description:**

Hemodynamics and 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 cerebrovascular disease.

### **VASCULAR SONOGRAPHY III**

#### **Course Description:**

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.

### **SEMINAR IN ADVANCED MEDICAL IMAGING**

#### **Course Description:**

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 diagnosis are made and patients are managed based on findings from multiple imaging modalities.

### **SEMINAR IN MANAGEMENT AND EDUCATION IN MEDICAL IMAGING**

#### **Course Description:**

This course will familiarize the diagnostic medical sonography with educational and management issues in the profession. Students will problem solve management issues as they relate to diagnostic medical sonography and will explore educational strategies employed in ultrasound education. Students will participate in department quality assurance projects and educational course development projects.

### **SEMINAR IN PROFESSIONAL DEVELOPMENT**

#### **Course Description:**

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. Students will be given the opportunity to create a resume in this course.

## **General Sonography Option**

### **Program Goals**

It is the goal of the UWHC School of Diagnostic Medical Sonography Program to produce highly qualified sonographers who function in a competent fashion in meeting the health care needs of the patient. Graduates of the program will be able to utilize the mechanical equipment used by ultrasound departments for the production of high quality diagnostic sonograms.

### **General Sonography Objectives**

Knowledge of cross-sectional and three-dimensional anatomy is critical to the performance and interpretation of ultrasound examinations, therefore the general 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," taught by faculty from the University of Wisconsin Department of Medical Physics. 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 general 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 Diagnostic Medical Sonography Program the student will be able to:

1. Conduct themselves in a courteous and professional manner while in the hospital and clinical environment.
2. Identify and describe sonographic terminology and use the terminology in an effective manner.
3. Employ the use of medical terminology and abbreviations pertinent to diagnostic medical ultrasound.
4. 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.
5. Demonstrate knowledge of the physical principles of diagnostic medical ultrasound and their applications to the clinical environment.
6. Describe the principles and applications of Doppler ultrasound.
7. Manipulate the technical controls on the equipment used in the ultrasound department to produce an optimum image for diagnostic purposes.
8. Record and process for display the images necessary for a diagnostic medical ultrasound examination.
9. Identify the biological effects of diagnostic medical ultrasound and take the necessary precautions to avoid excessive exposure of ultrasound in patients.
10. Demonstrate the appropriate skills in performing a quality assurance test.
11. Demonstrate the ability to mentally transform gross anatomy to cross-sectional anatomy relative to diagnostic medical ultrasound.
12. 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.
13. 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.
14. Assist the attending physician/sonographer in the differential diagnosis process of a pathological entity.
15. 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 course of 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.

## **General Sonography Standards**

1. 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, Program Director, Clinical Education Coordinator, and lead workers in the Radiology Department Ultrasound Division and Cardiology Department shall serve on the admissions committee.
2. 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.
3. Students will communicate effectively with patients and provide care for their physical, emotional, and educational needs.
4. Students will learn to function and communicate effectively as an essential member of the diagnostic medical sonography team.
5. 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.
6. Students will develop critical thinking skills and will apply them in the classroom and the clinical situations. The Program Director 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.
7. Students will demonstrate punctuality, dependability, initiative, and adaptability in their classroom and clinical performance.
8. Graduates will successfully pass the ARDMS examinations.
9. Graduates and employers will exhibit a high degree of satisfaction with the educational experience in postgraduate and employer surveys.
10. Graduates will continue their education to remain abreast of new developments in diagnostic medical sonography.

## ***General Sonography Course Schedule***

### **Junior Year Fall Semester**

Introduction to Sonography  
Abdominal Sonography I  
OB/GYN Sonography I  
Vascular Sonography I  
Sonography Clinical Education I

### **Junior Year Spring Semester**

Medical Ultrasound Principles and Apparatus  
Abdominal Sonography II  
OB/GYN Sonography II  
Vascular Sonography II  
Sonography Clinical Education II

### **Junior Year Summer Semester**

Breast Sonography  
OB/GYN Sonography III  
Sonography Clinical Education III

### **Senior Year Fall Semester**

Abdominal Sonography III  
OB/GYN Sonography IV  
Vascular Sonography III  
Introduction to Fetal Echocardiography  
Sonography Clinical Education IV

### **Senior Year Spring Semester**

Seminar in Advanced Medical Imaging  
Seminar in Management and Education in  
Medical Imaging  
Seminar in Professional Development  
Sonography Clinical Education V

### **Senior Year Summer Semester**

Sonography Clinical Education IV  
Introduction to Neurosonography

### ***Student Awards***

The John Parks Award is an annual award presented to the students with the highest overall grade in the general/vascular sonography and echocardiography/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 general/ vascular and echocardiography/ vascular options.

Each year the graduating students are asked to vote for an outstanding clinical educator in each discipline (General/ Vascular and Echo/ Vascular). The clinical educators selected by the students are awarded the Gregory L. Spicer Outstanding Clinical Educator Award by the graduating class.



# ***General Sonography Course Descriptions***

## **INTRODUCTION TO SONOGRAPHY**

### **Course Description:**

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. Students not passing this course will need to retake this course prior to continuing on in the Diagnostic Medical Sonography major.

## **ABDOMINAL SONOGRAPHY I**

### **Course Description:**

Anatomy, physiology, pathology and pathophysiology seen on normal and abnormal sonograms of the peritoneal space, pre-vertebral vessels and 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**

### **Course Description:**

Anatomy, physiology, pathology and pathophysiology seen on normal and abnormal sonograms of the kidneys, biliary system, pancreas, and spleen 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**

### **Description:**

Anatomy, physiology, pathology and pathophysiology seen on normal and abnormal sonograms of the adrenals, male pelvis, musculoskeletal, intraoperative, and pediatric specialty exams will be discussed. Students will become familiar with the clinical symptoms, lab values and specific ultrasound protocols for normal and abnormal cases.

## **BREAST SONOGRAPHY**

### **Course Description:**

In this course the student studies the embryology, structure, physiology and pathology of the breast, and superficial structures. Normal, abnormal gross, cross-sectional and relational sonographic anatomy will be explored. Invasive and intraoperative sonographic techniques will be discussed as they relate to breast, thyroid and scrotal sonography exams. The student will have the opportunity to demonstrate their knowledge of sterile technique.

## **INTRODUCTION TO FETAL ECHOCARDIOGRAPHY**

### **Course Description:**

Advanced study of the fetal heart, to include normal anatomy and congenital heart disease. This course will cover embryology of the heart, the fetal echocardiography exam and protocols and congenital heart disease.

## **MEDICAL ULTRASOUND PRINCIPLES AND APPARATUS**

### **Course Description:**

The purpose of this course is to enable students to become familiar with the physical principles governing the of medical ultrasound equipment. Emphases will be on diagnostic imaging systems, but 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.

### **OB/GYN SONOGRAPHY I**

#### **Course Description:**

This course focuses on the normal gross, relational and sonographic anatomy of the female pelvis. Included are discussions on gynecologic pathologies and infertility. Physiology and related laboratory and clinical findings for disease processes are emphasized related to the female pelvis. Students will complete both a written and practical final exam.

### **OB/GYN SONOGRAPHY II**

#### **Course Description:**

The student will be understanding embryology, sonographic evaluation, and complications during the first trimester. Labor, fetal presentation and fetal anomalies as visualized on ultrasound during the second and third trimester will also be discussed. Students will become familiar with central nervous system anomalies, GI anomalies, GU anomalies, and musculoskeletal anomalies, anomalies associated with multiple gestations and placental pathology as they appear on ultrasound exams. Students will have the opportunity to practice biometric measurements on an obstetrical phantom during this course.

### **OB/GYN SONOGRAPHY III**

#### **Description:**

This course will discuss the role of ultrasound in evaluating maternal complications in pregnancy, needle guidance procedures (CVS sampling, Amniocentesis, PUBS, therapy), and in monitoring high risk patients.

### **OB/GYN SONOGRAPHY IV**

#### **Description:**

This course will discuss the role of ultrasound in evaluating the fetus for various genetic syndromes and understanding inheritance patterns.

### **SONOGRAPHY CLINICAL EDUCATION I**

#### **Course Description:**

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 technology. During this practicum, students will be assigned competencies and objectives to complete.

### **SONOGRAPHY CLINICAL EDUCATION II**

#### **Course Description:**

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 technology. During this practicum, students will be assigned competencies and objectives to complete.

### **SONOGRAPHY CLINICAL EDUCATION III**

#### **Course Description:**

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 technology. During this practicum, students will be assigned clinical competencies and objectives to complete.

### **SONOGRAPHY CLINICAL EDUCATION IV**

#### **Course Description:**

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 technology. During this practicum, students will be assigned clinical competencies and objectives to complete.

### **SONOGRAPHY CLINICAL EDUCATION V**

#### **Course Description:**

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 technology. During this practicum, students will be assigned clinical competencies and objectives to complete.

### **SONOGRAPHY CLINICAL EDUCATION VI**

#### **Course Description:**

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

### **VASCULAR SONOGRAPHY I**

#### **Course Description:**

Peripheral Vascular direct and indirect arterial and 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.

### **VASCULAR SONOGRAPHY II**

#### **Course Description:**

Hemodynamics and 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 cerebrovascular disease.

### **VASCULAR SONOGRAPHY III**

#### **Course Description:**

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.

### **SEMINAR IN ADVANCED MEDICAL IMAGING**

#### **Course Description:**

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 diagnosis are made and patients are managed based on findings from multiple imaging modalities.

### **SEMINAR IN MANAGEMENT AND EDUCATION IN MEDICAL IMAGING**

#### **Course Description:**

This course will familiarize the diagnostic medical sonography with educational and management issues in the profession. Students will problem solve management issues as they relate to diagnostic medical sonography and will explore educational strategies employed in ultrasound education. Students will participate in department quality assurance projects and educational course development projects.

### **SEMINAR IN PROFESSIONAL DEVELOPMENT**

#### **Course Description:**

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. Students will be given the opportunity to create a resume in this course.

### **INTRODUCTION TO NEUROSONOLOGY**

#### **Course Description:**

This course will cover the anatomy, physiology, pathology, pathophysiology and the sonographic appearance of the normal and abnormal neonatal brain and spine. Students will become familiar with the normal ultrasound exam protocol and how to modify the exam for pathological conditions.

# CLINICAL GRADING AND EVALUATION

## ***Plan for Competency-Based Clinical Education***

The UWHC campus serves as the sponsoring site for the University of Wisconsin-Milwaukee School of Diagnostic Medical Sonography didactic and clinical portion of the Bachelor of Science in Medical Sonography. The School of Diagnostic Medical Sonography offers a 24-month general and vascular sonography option and a 24-month echocardiography and 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 three, 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 competency examinations in a laboratory setting before they are eligible to complete the competency examinations required for graduation.

## ***Clinical Grading***

The UWHC School of Diagnostic Medical Sonography 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 Program Director and Clinical Education Coordinators 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 Diagnostic Medical Sonography Program Director and Clinical Education Coordinator. All of the required clinical forms along with a complete description of correct use and deadlines may be found on the University of Wisconsin-Milwaukee College of Health Sciences Diagnostic Medical Sonography Course web site (D2L). The directions and deadlines contained on the University of Wisconsin-Milwaukee College of Health Sciences Diagnostic Medical Sonography Course web site (D2L) 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. A description of the clinical evaluation process is provided below.

1. **Clinical Facilities:** Students are required to successfully complete clinical practical exams with the School of Diagnostic Medical Sonography faculty as well as required clinical competency examinations at the clinical sites. Students are required to complete ultrasound examination competencies at School of Diagnostic Medical Sonography approved clinical sites for the diagnostic medical sonography and echocardiography programs.
  - a. Students will demonstrate to School of Diagnostic Medical Sonography faculty their ability to produce images of anatomic structures outlined by the clinical objectives provided by the Clinical Education Coordinator during scanning laboratory periods. Students will then complete, with a passing grade, a preliminary clinical competency under the supervision of School faculty. Upon successful completion of each preliminary clinical competency, students will be allowed to begin completion of their clinical competencies at their clinical sites.

- b. 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. Both the preliminary clinical competencies and the clinical competencies will be scored automatically by the E-Value system and according to the following guidelines.
  - c. Clinical competencies and preliminary competencies are scored using a weighted scale.
    - i. The competencies are scored on a scale of 1 to 4. A score of four is given when a student is able to 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.
    - ii. 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.
  - d. Clinical evaluations are scored using a weighted scale.
    - i. For the first twelve weeks of the first semester, students will be graded on 5 objectives. Each behavior under the objectives is given a point value from 1 to 5 with 5 being the optimal behavior and the first behavior listed under each objective. A maximum of 20 points will be awarded for each of the 5 objectives. The total points awarded will then be divided by the total points possible which are 100. The resulting percentage must be at least 80% to be considered a passing grade. Failing grades will result in a clinical counseling session and disciplinary action according to the policy in the academic handbook.
    - ii. The last evaluation of the first semester and all evaluations for semesters two through six, the student will be graded on ten objectives with each objective receiving a point value from 1 to 5. The total points awarded will then be divided by the total points possible which are 50. 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.
  - iii. Evaluations are due every four weeks throughout all six 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.
  - e. Upon completion of the required clinical competency examinations at the clinical sites, the students will complete a final clinical practical exam in each anatomical area, with School of Diagnostic Medical Sonography faculty. A passing grade on the final clinical practical examinations is required for graduation.
  - f. Students are expected to abide by the Professional Behavior Requirements and Professional Behavior Code adopted by the School of Diagnostic Medical Sonography. Students who fail to adhere to the codes of professional and ethical conduct will be subject to disciplinary action.
  - g. Students are expected to abide by the dress code outlined in the Professional Behavior Code adopted by the School of Diagnostic Medical Sonography when attending clinical training. Students who fail to adhere to the dress code will be subject to disciplinary action.
2. **School of Diagnostic Medical Sonography:**  
The student's clinical progress will be evaluated by the Program Directors, Clinical Education Coordinator and dedicated Cardiac Instructor, at mid-semester and end of the semester time intervals.
- a. Students will meet with the Program Director, and/or the Clinical Education Coordinator and/or the Cardiac 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. Overall clinical grades will be discussed at these meetings.

- b. Semester clinical grades will be determined by the Program Director, Clinical Education Coordinators and Cardiac Instructor at the end of the sixteen week semester. For semesters 1-4, the student's semester grade will be based on an average of:
1. Clinical evaluations (25%), completed
  2. Preliminary clinical competency examinations (25%)
  3. Completed clinical competency examination score average (25%)
  4. Completed final clinical practical exams (25%)

- c. For semester 5, all preliminary competencies are completed and no practical final is given, therefore those two areas are not averaged into the clinical grade for the fifth semester only. For semester 6, the preliminary and clinical competencies should all be completed by the sixth semester. Therefore, those two areas are not averaged into the clinical grade for the sixth semester only. Thus the sixth semester clinical education grade is derived from averaging the clinical evaluation scores, the score of the final practical exam, and completion of a protocol book.

**Table 1: Clinical Grading**

	Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6
<b>1. Clinical Evaluations</b> – evaluated by Clinical Instructors at Clinical Sites	25%	25%	25%	25%	50%	25%
<b>2. Preliminary Clinical Competency Evaluations</b> – evaluated by School Faculty in Lab setting.	25%	25%	25%	25%	N/A	N/A
<b>3. Clinical Competencies</b> – evaluated by Clinical Instructors at Clinical Sites. A number of competencies may be assigned to students to complete to earn a grade of an A. All competencies must be completed by the end of the fifth semester.	25% Must complete at least 1 competency during 1 <sup>st</sup> Semester.*	25% Must complete at least 30 competencies by the end of 2 <sup>nd</sup> semester	25% Must complete at least 50 competencies by the end of 3 <sup>rd</sup> semester.	25% Must complete at least 70 competencies by the end of 4 <sup>th</sup> semester	50%	N/A All competencies must be complete by graduation
<b>4. Final Clinical Practical Examinations</b> – evaluated by School Faculty in Lab Setting.*	25%	25%	25%	25%	NA	50%
<b>5. Protocol Book</b> – evaluated by School Faculty at the end of the sixth semester	N/A	N/A	N/A	N/A	N/A	25%
<b>6. Final Clinical Grade</b> (averaging and weighting of above) (below 80% is failing)	100% 92-100=A 85-91=B 80-84=C	100% 92-100=A 85-91=B 80-84=C	100% 92-100=A 85-91=B 80-84=C	100% 92-100=A 85-91=B 80-84=C	100% 92-100=A 85-91=B 80-84=C	100% 92-100=A 85-91=B 80-84=C

**Note:** in order to stay on-schedule for competency completion students must complete an average of 30 competencies per eight weeks until all competencies are completed. This amount may vary due to clinical site rotation.

**\*Final Clinical Practical Examinations**

Throughout the duration of the program, students will be performing final clinical practical examinations with the School of DMS faculty. These examinations will consist of students scanning on structures and protocols covered over the duration of the appropriate semester.

During the 3<sup>rd</sup> and 6<sup>th</sup> semesters, all students will perform an Objective Structured Clinical Exam (OSCE) for the carotid Duplex and lower extremity

venous exams. The students will be rotating through two stations: a scanning station and a clinical case section. During the scanning station, students will perform a carotid Duplex and lower extremity venous exam on two different standardized patients. For the clinical case station, students will go through a series of vascular pathology images and will need to correctly answer questions on these pathology images. The School of DMS faculty will be assessing students on their performance and will be located at each station.

### **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 Diagnostic Medical Sonography (See Tables 2 & 3). Students must participate in all clinical rotations mandated by the School of Diagnostic Medical Sonography. The Program Director and Clinical Education Coordinator 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 Clinical Education Coordinator at the end of each clinical rotation. Students should contact the Clinical Education Coordinator 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 Diagnostic Medical Sonography. The clinical instructors will implement the following guidelines in working with students:

1. Until a student has successfully completed the preliminary clinical competency 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.
2. After a student has successfully completed the preliminary clinical competency 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.

### **Echocardiography Clinical Sites**

Students enrolled in the echocardiography option participate in clinical rotations that include time spent in echocardiography, cardiology, perinatal obstetric, vascular technology, and vascular surgery departments (see 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 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 insures that students are exposed various types of ultrasound techniques and a wide range of patient pathologic conditions.

### **General Sonography Clinical Sites**

Students enrolled in the general and vascular diagnostic medical sonography option participate in clinical rotations that include radiology, obstetric and gynecologic, vascular technology, and vascular surgery departments (see Table 3). 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 insures that students are exposed various types of ultrasound techniques as well as a wide range of patients and pathologic conditions.

**Table 2: Echocardiography Program Clinical Sites**

<b>Clinical Site</b>	<b>Clinical Contact</b>	<b>Site Address</b>
American Family Children's Hospital – Pediatric Cardiology	Jamie Beebe RDCS <b>608-890-8120</b>	1675 Highland Avenue Madison, WI 53792
Beloit Hospital Ultrasound Department	Linda Pechnik RDCS <b>608-364-5127</b>	1969 W. Hart Drive Beloit, WI 53511
Dean –Outpatient Clinic	Laura Cross RDCS <b>608-252-8284</b>	700 S. Park Street Madison, WI 53715
Divine Savior Healthcare, Inc.	Joshua Veglahn RDMS, RDCS <b>608-745-5020 or 608-745-5617</b>	2817 New Pinery Road Portage, WI 53091
Meriter Heart Center Cardiology Department	Diane Binder RDCS <b>608-417-7359</b>	202 South Park Street Madison, WI 53715-1599
The Monroe Clinic	Marie McClain RDCS <b>608-324-2209</b>	515 22 <sup>nd</sup> Avenue Monroe, WI 53566
St. Mary's Hospital Cardiology Department	Stacey Ragels, RDCS <b>608-259-5417</b>	707 South Mills Street Madison, WI 53715-0450
UW Health Atrium Cardiovascular Clinic (site located in Meriter Hospital Atrium)	Jeanne Rainbolt RDCS <b>608-417-5977</b>	202 South Park Street Madison, WI 53715-1599
UW Health East Clinic Echocardiography Lab	Kim Baker, RDCS <b>608-264-4652</b>	5249 E. Terrace Drive Madison, WI 53718
UW Health West Clinic Echocardiography Lab	Kim Baker, RDCS <b>608-265-7709</b>	451 Junction Road Madison, WI 53717-2656
UWHC Heart & Vascular Testing	Nancy Bell, RN, RDCS, RVT 608-261-1816	600 Highland Avenue Madison, WI 53792
Watertown Memorial Hospital (UW Health Partners)	Monte McNeil <b>920-262-4313</b>	125 Hospital Drive Watertown, WI 53098
Wisconsin Heart	Jenny Campbell, RDCS <b>608-417-2100</b>	2601 W. Beltline Hwy. Madison, WI 53713
Wm S Middleton Veterans Hosp. Echocardiography Department	Daniel Blom, RDCS <b>608-280-7003</b> <b>or 608-256-1901, ext.11616</b>	2500 Overlook Terrace Madison, WI 53705-2254
Wm S Middleton Veterans Hosp. Vascular Department	Don Witmer-Kean, RVT 608-256-1901 ext: 11505	2500 Overlook Terrace Madison, WI 53705-2254



**Table 3: General Sonography Program Clinical Sites**

<b>Clinical Site</b>	<b>Clinical Contact</b>	<b>Site Address</b>
Beaver Dam Community Hospital	Rose Reeson Dobie, RDMS <b>920-887-4006 (Med Imaging)</b> <b>920-887-5976 (Rose Dobie)</b>	707 S. University Ave. Beaver Dam, WI 53916
Beloit Clinic	Jodi Landis, RDMS <b>608-364-2425</b>	1905 Huebbe Parkway Beloit, WI 53511
Beloit Hospital Ultrasound Department	Linda Pechnik RDCS <b>Vascular Lab: 608-364-5110</b> <b>General Lab: 608-364-5682</b> <b>Reception: 608-364-5249</b>	1969 W. Hart Drive Beloit, WI 53511
Dean East Clinic Ultrasound Department	Jean Dagget RDMS <b>608- 260-6233</b>	1821 S. Stoughton Road Madison, WI 53716
Dean Fish Hatchery Clinic Ultrasound Department	Karen Jasensky RDMS <b>608-252-8360</b>	1313 Fish Hatchery Road Madison, WI 53715
Dean West Clinic Ultrasound Department	Sandy Simpson RDMS <b>608-824-4265</b>	752 North Highpoint Road Madison, WI 53717
Divine Savior Healthcare, Inc.	Joshua Veglahn RDMS, RDCS <b>608-745-5020 or 608-745-5617</b>	2817 New Pinery Road Portage, WI 53091
Meriter Hospital Medical Imaging	Juanita Libanskey BS, RVT <b>608-417-7166</b>	202 South Park Street Madison, WI 53715-1599
Meriter Perinatal Center	Barb Trampe RDMS, RN <b>608-417-6359</b>	202 South Park Street Madison, WI 53715
Monroe Clinic	Lori Runkle RDMS, RVT <b>608-324-1338</b>	515 22 <sup>nd</sup> Avenue Monroe, WI 53566
St. Mary's Hospital	Tara Pechan RDMS, RVT <b>608-258-6955</b>	707 South Mills Street Madison, WI 53715-0450
Swedish American Hospital	Marie Taylor, RDMS <b>815-489-4776</b>	1401 E. State St. Rockford, IL 61104
UW Health 1 S. Park Medical Imaging	Colleen Wilson RDMS, RDCS <b>608-287-2060</b>	1 South Park Street Madison, WI 53715
UW Health 20 S. Park OB/GYN Department	Michelle Straus, RDMS <b>608-287-2832</b>	20 South Park Street Madison, WI 53715
UW Health East Clinic	Dana Walker, RDMS <b>608-890-9998</b>	5249 E. Terrace Drive Madison, WI 53718
UW Health Research Park - Musculoskeletal	Dana Walker, RDMS <b>608-890-7689</b>	621 Science Drive Madison, WI 53711
UWHC Breast Center	Dana Walker, RDMS <b>608-262-6787</b>	600 Highland Avenue Madison, WI 53792
UWHC Radiology	Dana Walker, RDMS <b>608-262-5279</b>	600 Highland Avenue Madison, WI 53792
Watertown Memorial Hospital (UW Health Partners)	Nancy Rettschlag, RDMS <b>920-206-3070</b>	125 Hospital Drive Watertown, WI 53098
Wm S Middleton Veterans Hosp. Radiology Ultrasound Dept.	Stanley St. John, RDMS <b>608-280-7070, ext. 17665</b>	2500 Overlook Terrace Madison, WI 53705-2254
Wm S Middleton Veterans Hosp. Vascular Lab	Donald Witmer-Kean <b>608-256-1901, ext. 11505</b>	2500 Overlook Terrace Madison, WI 53705-2254

## ***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 (with the exception of 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, Program Director, or Clinical Education Coordinator.

- A. 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, Program Director, or Clinical Education Coordinator is strictly prohibited by the School of Diagnostic Medical Sonography. Students who use clinical equipment on non-patients are subject to disciplinary action.
- B. Any unauthorized use of ultrasound machines, medical equipment, and other facility resources by students is strictly prohibited by the School of Diagnostic Medical Sonography. Students who use clinical equipment without authorization are subject to disciplinary action.

## ***Clinical Exposure Precautions***

During the course of their clinical training, students will perform ultrasound examinations that may expose them to blood and body fluids. The School of Diagnostic Medical Sonography 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:

1. Gloves should be worn when contact is made with a patient or patient's personal effects.
2. Gloves should be worn when cleaning ultrasound machines, transducers, and other types of medical equipment in the examination room.

3. 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).
4. Eye protection should be worn when there is a possibility that blood or body fluids may be splashed into the eyes.
5. Protective gowns should be worn when there is a possibility that blood or body fluids may be splashed onto the student's clothing.
6. 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.
7. 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.
  - a. The incident should be reported to the Program Director and Clinical Education Coordinator as soon as possible after the event.
  - b. Students should submit a copy of all documentation obtained from the employee health office at the clinical site to the Program Director and Clinical Education Coordinator as soon as possible.
  - c. Students will work with the Program Director and Clinical Education Coordinator on all follow-up documentation needed after the exposure incident.

## ***Clinical Rotation Physical Requirements***

(see Technical Standards)

# RULES FOR SPECIFIC CLINICAL SITES

## ***Meriter Hospital***

**Airborne Pathogen Precautions:** While in rotations at Meriter hospital, students are **not** to participate in patient procedures that would require them to enter a room of a patient who is been placed in airborne precautions.

While many of the students may have been fit tested for an N-95 respirator we do not have that documentation in Employee Health as they are not Meriter employees. OSHA Respiratory Protection standards require that employees be trained and fit tested with the type and brand of respirator that they are required to use. The type and brand of respirator the students may have been fit tested for may not be the particular type or brand of respirator that we use here at Meriter.

Please note: students may participate in exams and procedures done in procedure rooms where the airborne patients are masked and will remain masked during the entire time they are out of their room.

### **Dress Code:**

While in rotations at Meriter Medical Imaging (not applicable to Meriter Perinatology) students are to adhere to the Meriter Medical Imaging dress code as detailed below:

- Plain polo shirt (modest, no writing or pattern)
- Pants (black, khaki, or white)
- White lab coat

## ***Wisconsin Heart***

While rotating at Wisconsin Heart, clinical hours will be scheduled from 7:30am to 4pm. All other clinical hours are from 8am to 4:30pm.

## ***Dean Clinics / St. Mary's Hospital***

(GENERAL VASCULAR OPTION ONLY\*\*)

While rotating in the general /vascular areas at the Dean clinics or St. Mary's Hospital, students may be dismissed at 3:30pm instead of 4:30pm without submitting an early dismissal form. If dismissal occurs prior to 3:30pm an early dismissal form will be required.

**Table 4: Site-Specific On-Boarding Processes & Required Forms**

Clinical Site	Required Forms	On-Boarding Instructions	On-Boarding Contact
Beaver Dam Community Hospital GENERAL ONLY	<input type="checkbox"/> Confirmation of Background Check and Employee Health Screening email from UWHC Human Resources <input type="checkbox"/> Confidentiality Agreement for Student Interns <input type="checkbox"/> BDCH Ultrasound Student Info Form (w/copy of driver's license)	<ol style="list-style-type: none"> <li>1. One week prior to rotation Dan Sodemann (UWHC HR) sends confirmation letter to John Sweeney <a href="mailto:jsweeney@bdch.org">jsweeney@bdch.org</a></li> <li>2. School sends Confidentiality Agreement and BDCH Student Info Form to Linda Rohrbeck <a href="mailto:lrohrbeck@bdch.org">lrohrbeck@bdch.org</a></li> </ol>	<p>John Sweeney, Director <a href="mailto:jsweeney@bdch.org">jsweeney@bdch.org</a> Ph: (920) 887-6814</p> <p>Linda Rohrbeck, <a href="mailto:lrohrbeck@bdch.org">lrohrbeck@bdch.org</a> BDCH Med Img Admin. Assistant Ph: (920) 887-4184</p>
Meriter Hospital GENERAL ONLY	<input type="checkbox"/> Orientation Activities Checklist	<ol style="list-style-type: none"> <li>1. School sends Checklist to Karen Andrusco.</li> </ol>	<p>Karen Andrusco <a href="mailto:kandrusco@meriter.com">kandrusco@meriter.com</a> Ph: (608) 267-6259 Fax: (608) 267-6198</p>
UW Health 1 S. Park – UW Medical Foundation GENERAL ONLY	<input type="checkbox"/> Med Img. Student Checklist & Flow Chart (for reference) <input type="checkbox"/> Non-Employee Health Form <input type="checkbox"/> Latex Allergy Screening Questionnaire <input type="checkbox"/> Student's UWHC Employee Health Record <input type="checkbox"/> Confirmation of Background Check and Employee Health Screening email from UWHC Human Resources <input type="checkbox"/> UWMF Student Placement Form <input type="checkbox"/> UWMF Electronic Health Information Form <input type="checkbox"/> Student Confidentiality Agreement <input type="checkbox"/> Copy of current CPR card	<ol style="list-style-type: none"> <li>1. Student faxes Health Form, Questionnaire, and EH record to UWMF Employee Health.</li> <li>2. Dan Sodemann (UWHC HR) sends confirmation letter to Darlene Helming.</li> <li>3. Student gives a copy of ALL FORMS to Colleen Wilson on first day of rotation.</li> <li>4. Colleen co-signs Student Placement form and faxes to school for records.</li> </ol>	<p>UWMF Employee Health Fax: (608)824-2243</p> <p>Darlene Helming <a href="mailto:Darlene.Helming@uwmf.wisc.edu">Darlene.Helming@uwmf.wisc.edu</a> Fax: (608) 821-4151</p> <p>Colleen Wilson Clinic Liaison Ph: 287-2060 <a href="mailto:Colleen.Wilson@uwmf.wisc.edu">Colleen.Wilson@uwmf.wisc.edu</a></p> <p>UWMF Clinical Staff Education Fax: (608)821-4815</p>
UW Hospitals & Clinics	<input type="checkbox"/> Background Information Disclosure Form (BID) <input type="checkbox"/> Pre-Employment Health Assessment <input type="checkbox"/> New Employee Orientation (NEO) <input type="checkbox"/> UWHC Confidentiality Agreement	<ol style="list-style-type: none"> <li>1. Student sends completed BID form to Monica McKillip by due date. Processed by Labor Relations.</li> <li>2. Student sets up Health Assessment appointment with Employee Health through Monica McKillip, completes vaccination form.</li> <li>3. Student attends 2nd abbreviated NEO session in August.</li> <li>4. Student signs UWHC Confidentiality Agreement at New Student Orientation at the beginning of September.</li> <li>5. School keeps all records on file.</li> </ol>	<p>Monica McKillip UWHC Recruitment 5105 University Ave., Madison, WI 53705 Ph: (608) 265-8891 <a href="mailto:mmckillip@uwhealth.org">mmckillip@uwhealth.org</a></p> <p>UWHC School of DMS</p>

**Table 4: Site-Specific On-Boarding Processes & Required Forms (cont.)**

Clinical Site	Required Forms	On-Boarding Instructions	On-Boarding Contact
<p>Wm. S. Middleton Veterans Administration Hospital</p>	<p><input type="checkbox"/> Instructions for completing VA on-boarding forms (for reference)</p> <p><input type="checkbox"/> VA forms checklist w/directions to VA HR (for reference)</p> <p><input type="checkbox"/> Radiology Student memo (for reference – GENERAL STUDENTS ONLY)</p> <p><input type="checkbox"/> WOC Letter (“Memorandum No. HRM-154”)</p> <p><input type="checkbox"/> WOC Information Sheet</p> <p><input type="checkbox"/> Special Agreement Check (SAC)</p> <p><input type="checkbox"/> Request for Personal Identity Verification Card</p> <p><input type="checkbox"/> Declaration for Federal Employment</p> <p><input type="checkbox"/> Application for Health Professions Trainees</p> <p><input type="checkbox"/> I-9 Form, Employment Eligibility Verification</p> <p><input type="checkbox"/> Appointment Affidavits</p> <p><input type="checkbox"/> Two forms of photo ID (driver’s license, student ID, etc.) plus forms of ID required according to pg. 5 of I-9 form</p>	<p><u>General Students</u></p> <ol style="list-style-type: none"> <li>Two – Three weeks prior to rotation student delivers completed forms to VA Radiology secretary in DG239.</li> <li>Student shows <b>two forms of photo ID</b> and is fingerprinted by VA HR.</li> <li>VA HR will give the student instructions to complete an electronic online questionnaire. The student must print out the last 2 pages of this questionnaire, sign them, and bring the 2 original signed pages back to the VA HR investigator.</li> <li>On 1<sup>st</sup> day of rotation at VA: Student reports to VA Radiology secretary in DG239.</li> <li>Student escorted to security, shows <b>two forms of photo ID</b> and obtains VA badge.</li> </ol> <p><u>Echo Students</u></p> <ol style="list-style-type: none"> <li>Two – Three weeks prior to rotation the student delivers completed forms to the VA HR Department (<i>trailer in Ground Floor C Wing Parking Lot</i>).</li> <li>Student shows <b>two forms of photo ID</b> and is fingerprinted by VA HR.</li> <li>VA HR will give the student instructions to complete an electronic online questionnaire. The student must print out the last 2 pages of this questionnaire, sign them, and bring the 2 original signed pages back to the VA HR investigator.</li> <li>On 1<sup>st</sup> day of rotation at VA: Student reports to VA Cardiology in C4150.</li> <li>Student escorted to security, shows <b>two forms of photo ID</b> and obtains VA badge.</li> </ol>	<p>Julie Patton, VA Radiology Secretary Ph: (608) 280-7071</p> <p>Daniel Blom VA Echo Lab Lead Workers Ph: (608) 280-7003 &amp; (608) 256-1901, ext. 11616</p> <p>VA HR Ph: (608) 280-7026 Fax: (608) 280-7025</p>
<p>Watertown Hospital (UW Health Partners)</p>	<p><input type="checkbox"/> Confirmation of Background Check and Employee Health Screening email from UWHC Human Resources</p> <p><input type="checkbox"/> Student’s UW Health Employee ID #</p> <p><input type="checkbox"/> Dates of Clinical Rotation to Watertown</p> <p><input type="checkbox"/> Student Experience Demographic Form &amp; Statement of Acknowledgement</p> <p><input type="checkbox"/> Just In Time Orientation Course – <b>completed online</b></p>	<ol style="list-style-type: none"> <li>School sends <b>Employee ID #, Dates of Rotation, and</b> student experience demographic form &amp; statement of acknowledgement to Kathryn Driessen.</li> <li>Dan Sodemann (UWHC HR) sends <b>confirmation letter</b> to Kathryn Driessen.</li> <li>Student follows instructions provided to complete <b>Student Just in Time Orientation</b> course online prior to 1<sup>st</sup> day of clinical rotation.</li> </ol>	<p>Kate Driessen, HR <a href="#">Watertown Regional Medical Center</a> 920.262.4521 (Phone) 920.262.4401 (Fax) <a href="mailto:kdriess@uwHPwatertown.com">kdriess@uwHPwatertown.com</a></p>

**Table 4: Site-Specific On-Boarding Processes & Required Forms (cont.)**

Clinical Site	Required Forms	On-Boarding Instructions	On-Boarding Contact
Wisconsin Heart ECHO ONLY	<input type="checkbox"/> <i>Confirmation of Background Check and Employee Health Screening email from UWHC Human Resources</i>	<ol style="list-style-type: none"> <li>1. Dan Sodemann (UWHC HR) sends <b>confirmation letter</b> to Shanna Cornell <a href="mailto:scornell@wiheart.com">scornell@wiheart.com</a>.</li> <li>2. First day of rotation, students meet with Shanna Cornell for HIPAA &amp; blood-borne pathogen training, to receive Wisconsin Heart badges, and for training with Ken on Wisconsin Heart computer system.</li> </ol>	Shanna Cornell <a href="mailto:scornell@wiheart.com">scornell@wiheart.com</a> Wisconsin Heart HR Dept. Ph: (608) 260-2204

# PROFESSIONAL BEHAVIOR CODE

## **Conduct**

Students enrolled in the University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography are expected to exhibit the highest standards of professionalism in academic and clinical settings. The discipline of diagnostic medical sonography requires its technologists 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 Diagnostic Medical Sonography.

## **Academic Conduct**

Academic conduct that will not be tolerated includes:

1. Cheating on exercises, papers, and examinations.
2. Plagiarism on written exercises, presentations, and papers.
3. Facilitating plagiarism on written exercises, presentation, and papers.
4. Disrespectful attitude towards didactic instructors and guest lecturers.
5. Improper use of academic equipment (i.e. computers, internet access, video presentations, CD and DVD presentations, audio-visual equipment, library books and resources).

## **Clinical Conduct**

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

1. Completing official clinic reports and required paperwork without clinical instructors' approval.
2. Disrespectful attitude towards patients and/or their families, clinical instructors, or clinical staff.
3. Failing to follow HIPAA patient confidentiality laws.

4. Falsifying attendance records, competency or evaluation forms or any other program information.
5. Intentionally disregarding and/or disobeying instructions supplied by the clinical instructor during the course of an examination, including:
  - a. Failing to follow the scanning methods appropriate to the examination being performed.
  - b. Failing to participate in an assigned examination.
  - c. Failing to cease scanning when directly told to stop by a clinical instructor.
  - d. Operating under the influence of drugs or alcohol
6. Physically or verbally abusing or mistreating patients, their families, or clinical staff
7. Sleeping or conducting personal business during clinic hours.
8. Stealing hospital or college property.
9. Using medical equipment (including ultrasound machines, vascular testing equipment, heart monitoring equipment, etc.) without the approval of a clinical instructor, Program Director, or Clinical Education Coordinator.
10. 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, Program Director, or Clinical Education Coordinator.
11. 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 STUDENT WILL BE DISMISSED FROM THE PROGRAM EFFECTIVE IMMEDIATELY.**

## ***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 coworkers 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.

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.

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.

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***

Students enrolled in the University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography are expected to be in compliance with the clinical dress code (solid navy blue scrubs and white lab coat) in clinical settings unless stipulated otherwise by clinical site. Shoes must enclose the entire foot.

Students that do not adhere to the dress code are subject to disciplinary action that may result in expulsion from the School of Diagnostic Medical Sonography.

## ***Dress Code Requirements***

1. Appropriate casual attire to attend didactic classes (no low cut tops or high cut shorts).
2. Solid color navy blue uniforms (a.k.a. scrubs) and a white laboratory coat to attend clinical rotations (lab coats should be long sleeved and cover the waist).
3. Closed-toed shoes should be worn to all clinical sites.
4. Students must wear their ID badges at all times (clinical and class days).
5. Dress worn to clinical rotations shall be clean and without extensive wrinkling.
6. Students will maintain an acceptable level of personal hygiene and grooming standards that are conducive to healthcare professionals.
7. Students will limit jewelry to rings, necklaces, and earrings. Other types of facial jewelry are prohibited as they may be offensive to patients.
8. Students will appropriately cover all visible body art (i.e. tattoos) as they may be offensive to patients.

## ***Dress Code Violations***

1. Students who persist in wearing facial jewelry after being counseled to remove it during clinical rotations.
2. Students who exhibit offensive body odor or other unacceptable levels of personal hygiene.
3. Students who wear dirty or damaged clothing.
4. Students who persist in failing to cover visible body art (i.e. tattoos) during clinical rotations after being counseled.

# STUDENT INFORMATION

## **FINANCIAL AID**

Students should follow the University of Wisconsin – Milwaukee policies for applying for financial aid.

## **Health Requirements and Health Insurance**

1. Applicants must have a physical completed by University of Wisconsin Hospital and Clinics (UWHC), at no cost to the student, prior to start date. They must be screened by Employee Health Services and be able to meet the physical requirements of the training.
2. The UWHC School of DMS provides students with access to basic health care services via the University of Wisconsin University Health Service (UHS). Rates and services available through UHS may be viewed at <http://www.uhs.wisc.edu>. UWHC School of DMS contracts with UHS so that program students pay UW-Madison student rates for UHS health services.
3. Students may purchase supplemental health insurance coverage on their own if they wish.
4. Students must make an appointment prior to seeing medical professionals at UHS. University of Wisconsin University Health Service is located on the 5<sup>th</sup> – 8<sup>th</sup> floor of 333 East Campus Mall, Madison, WI. Services available through UHS may be viewed at <http://www.uhs.wisc.edu>.
5. University of Wisconsin Hospital and Clinics (UWHC) Employee Health Services will treat students free of charge who become ill or injured while on clinical duty at a UWHC hospital or clinical site.
6. Students utilizing UWHC Emergency Services for medical treatment will be billed for those services.

## **Housing**

Students are responsible for providing their own room and board during the duration of the general/ vascular sonography option and/or echocardiography/ vascular sonography option. The University of Wisconsin Campus Assistance Center can aid students to locate rental housing (houses, apartments, boarding houses, and rooms in private residences) online at <http://housing.civc.wisc.edu/>. The UW Campus

Assistance Center is located at the address provided below:

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

## **Internet Information**

The University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography has an internet webpage that is linked to the University of Wisconsin Hospital & Clinics website [www.uwhealth.org/ultrasoundschool](http://www.uwhealth.org/ultrasoundschool).

In addition, the Commission on Accreditation of Allied Health Education Programs (CAAHEP) provides information about all accredited ultrasound training programs located within the United States on its website [www.caahep.org](http://www.caahep.org). Additional information about careers in diagnostic medical sonography can be obtained on the Society of Diagnostic Medical Sonography website [www.sdms.org](http://www.sdms.org).

Additional information about the University of Wisconsin – Milwaukee College of Health Sciences degree program may be accessed at <http://www.uwm.edu/chs>.

## **Other Expenses**

Students in both the general sonography and echocardiography 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.

Students in both the general/vascular sonography and echocardiography/vascular sonography options are required to wear a lab coat and a uniform of navy blue scrubs to clinical sites. Therefore, students are responsible for providing their own lab coats and uniforms.

## **Student Life in Madison**

The University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography is located on the western side of the University of Wisconsin-Madison campus on the shore of Lake Mendota in Madison, Wisconsin. The City of Madison supports a broad range of cultural events including concerts, exhibitions, plays, movies, and entertainment facilities that are available at prices compatible with a student's budget.

The City of Madison has a well-developed public transportation system, with bus services that traverse the city and surrounding areas. Opportunities for outdoor recreation both in the city and in the nearby countryside are plentiful. The University of Wisconsin maintains a 1240-acre arboretum that contains 25 miles of walking trails. Popular regional outdoor activities include sailing, hiking, ice-skating, cross-country skiing, bicycling, hunting, and fishing.

## **Student Organizations**

The UWHC School of Diagnostic Medical Sonography will have monthly Student Commission Meetings. The Student Commission will meet on the second Thursday of every month in an assigned classroom from noon to 1pm. The Student Commission will consist of four students, one from each class, junior and senior levels, and each discipline, General / Vascular Sonography and Echocardiography / Vascular Sonography. Each student from each class will be given the opportunity to represent their class and attend

the Student Commission meetings on a rotating basis. The rotation schedule is assigned at the beginning of every academic year. Also present at the Student Commission meetings are the faculty members of the school, the supervisors of the ultrasound departments at the UWHC, and the medical directors of the school.

The Student Commission serves as a forum for students to bring concerns and feedback from each of the classes and for faculty and medical directors to respond to comments and questions. The students which are assigned to the Student Commission for the month will also attend the Advisory Board Meetings, which are held in January, May, and September each year, as representatives of their class. If a student who is assigned to be a representative for the month cannot attend the meetings, it is the student's responsibility to find a replacement from their class and discipline to attend in their place.

## **Textbooks**

Textbooks are required and recommended by the University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography. A textbook list will be sent to students with the information packets included with welcome letters. Students should plan to spend up to \$2,500.00 for required textbooks. All textbooks may be purchased on-line or at the University Bookstore located within the Health Sciences Learning Center, 750 Highland Avenue, Madison, WI.

## **TUITION & FEES\*\***

Tuition is billed and paid to the University of Wisconsin – Milwaukee. Tuition is assessed by the number of credit hours for which the student is registered.

In addition, UWHC will charge a \$3,000.00 per year clinical lab fee due September 1<sup>st</sup> of each year.

*\*\*Tuition fees are subject to change. Applicants should contact faculty of the University of Wisconsin Hospital and Clinics School of Diagnostic Medical Sonography for updated tuition information.*

*The information listed in this Academic Policy Manual applies to the DMS Class of 2013-2015*