



**MONTGOMERY  
COLLEGE**

**Health Sciences  
Student Handbook  
2021-2022**

**Diagnostic Medical  
Sonography**

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## FORWARD

This Student Handbook is designed to provide Health Sciences students with a reference manual that deals with policies and procedures for individual programs within the Health Sciences Department. This Handbook serves to assist Health Sciences students toward successful completion of their course of study by directing them to College resources via webpage links [click on the blue, underlined text link to access the specific webpage]. As such, it is intended to supplement, not replace the policy and procedure publications to which all students of Montgomery College are subject, such as the:

- [Current College Catalog](#)
- [Current Semester Schedule of Classes](#)
- Student Handbook ([Student Code of Conduct](#))
- [College Policy and Procedures](#)
- [Academic Regulations](#)

It is the responsibility of each student to review this Handbook regularly and to understand its contents. It is the intention of this Handbook to eliminate the redundancy some might find in course syllabi or course guides. Information, policies and procedures that are relevant to all will be included in the first part of this Handbook. The second part of this Handbook will deal specifically with individual Health Science Programs within the Department. This Handbook should not be construed as constituting a contract, express or implied, between the individual Health Science Programs and any person. The statements and provisions of this Handbook are subject to change at the discretion of the Health Sciences Department and/or individual Program without notice. The most current version of this Handbook will be located on the website for individual Programs.

## COLLEGE

### MISSION, VISION, AND VALUES

More than just words, our mission, vision, and values reflect, in an inspiring way, who we are as an institution and why we are so dedicated to our students and their success. These aspirational standards set our priorities and drive our actions every day.

**OUR MISSION:** We empower our students to change their lives, and we enrich the life of our community. We are accountable for our results.

**OUR VISION:** With a sense of urgency for the future, Montgomery College will be a national model of educational excellence, opportunity, and student success. Our organization will be characterized by agility and relevance as it meets the dynamic challenges facing our students and community.

**OUR VALUES:** Excellence, Integrity, Innovation, Diversity, Stewardship, Sustainability

## Leadership Team

[DeRionne P. Pollard, PhD](#), President

[Sanjay Rai, PhD](#), Senior Vice President for Academic Affairs

[Monica Brown, EdD](#), Senior Vice President for Student Affairs

[Janee' McFadden](#), Dean of Student Engagement and TPSS Student Affairs

[Alice Boatman](#), Associate Dean of Student Engagement & TPSS Student Affairs

[Brad J. Stewart, PhD](#), Vice President/Provost, Communications, Health Sciences, Health and Physical Education, and Humanities **[Takoma Park/Silver Spring]**

[Monique Davis, PhD, MSN, RN](#), Collegewide Instructional Dean of Health Sciences and Director of Nursing

Brenda Knopp, MSN, CNE, RN, Nursing Department Chair

Melissa Sprague, MSN, RN Health Sciences Department Chair

## College

### [Applying for Graduation](#) :

December Graduation: Apply between June 2 – October 1

May Graduation: Apply between October 2 – February 15

August Graduation: Apply between February 16 – June 1

[Attendance Policy](#): Academic Regulations Article 9.645; Students are expected to attend all class sessions. In cases involving excessive absences from class, the instructor may drop the student from the class, resulting in a grade determined in accordance with Academic Regulation 9.645. "Excessive absence" is defined as one more absence than the number of classes per week during a fall or spring semester (with the number of absences to be prorated for accelerated sessions).

## Communication

EMAIL: Students and Faculty must use College email when corresponding via email. The College prohibits use of personal email accounts for College communication. Students are expected to check their email regularly. Students are held responsible for information, assignments, and announcements that are distributed via email. Please include your full name, MC ID number, and the course number for which you are currently enrolled. Students can anticipate 48-72 hour email response time from faculty / staff during business hours.

[MC ALERT](#): All students are encouraged to sign up for MC Alerts.

### [Counseling & Advising](#):

[Disability Support Services](#): Students requesting reasonable accommodations related to a disability must self-identify and are

encouraged to contact DSS as soon as possible after admission to the College. If eligible, must be completed each semester.

[Accommodations](#): Determined on a case by-case basis and may include extended time, note-taking assistance, sign language interpreting services, and alternative formats for printed materials.

### [Grades](#) Academic Regulations Article 6

Disputed Final Grades

Incomplete Grades

[Hardware Specifications](#): Technology will be a major component of your education at MC. The College identifies general technical requirements and minimal hardware specifications so that online learning is successful.

### [Inclement Weather](#)

#### **Resources**

[Financial Aid](#)

[Learning Skills Support Services](#)

[Medical Learning Center](#)

[Student Health and Wellness](#)

[Title IX & Sexual Discrimination Information](#)

[TPSS Raptor Central](#)

[Veterans and Military](#)

[Virtual Tutoring](#)

[Student Complaint Resolution](#): In general, students are encouraged to approach their faculty member first to resolve their complaint. If the complaint cannot be resolved by the faculty member, then the student should address their complaint to the Department Chair. If the complaint still cannot be resolved, the complaint will be escalated to the Dean. Attempting to resolve a complaint at these levels will help assure timely resolution of student complaints.

[Student Code of Conduct](#): All students are expected to achieve their goals with academic honor. Cheating, plagiarism, and/or other forms of academic dishonesty or misconduct, examples of which can be found in the Student Code of Conduct, are not to be tolerated. A student who engages in any act that his or her classroom instructor considers academic dishonesty or misconduct is subject to any and all sanctions deemed appropriate by the classroom instructor. The classroom instructor determines student acts of academic dishonesty and misconduct, such as cheating, plagiarism, and any other form of academic dishonesty, common examples of which are cited in the Student Code of Conduct Section VIII. Grade sanctions may range from an "F" on the assignment in which the dishonesty occurred, to an "F" on a portion of the

coursework, to a maximum sanction of an “F” in the course. The instructor may choose to impose a consequence other than grade sanctions and also has the prerogative of referring a case to the campus dean of student development, with a specific request that the dean consider imposing additional sanctions. The rights and responsibilities of both the course instructor and the student, as well as the procedures to be followed, are detailed in the Student Code of Conduct.

[Withdrawal from Classes](#) Academic Regulations Article 4.10

## Health Sciences Department

**Advising:** Faculty provide program advising to current and prospective students. All students will meet with a program advisor by week 8 of the semester and are encouraged to seek advising as needed. Program advising should occur at least twice per semester.

**Blackboard:** The College uses Blackboard as the designated Learning Management System. Students and faculty must self-enroll in the appropriate Hub to receive communications about learning resources, volunteer opportunities, and to complete mandatory training like HIPAA & OSHA  
Health Sciences Hub  
Nursing Hub

**Employment Policy:** Students shall be treated as trainees who have no expectation of receiving compensation for clinical training or future employment from the clinical affiliate. In an effort to prevent role conflict, students employed with a clinical affiliate will not be assigned at their place of employment for their clinical rotation. Students must immediately notify the clinical coordinator if they are employed at any of our clinical affiliates.

## Health Record Requirements

**CastleBranch:** Health Record Management System utilized by all Health Science programs and many clinical facilities

**CPR Certification:** Proof of current CPR certification must be by the *American Heart Association* for the **Basic Life Support/BLS- provider**; no on-line classes accepted, blended (online AHA Heartcode with Face-to-Face skills testing) classes are acceptable.

**Criminal Background Check:** A criminal background check is required by the clinical agencies and is handled by an external vendor. Currently, the vendor is CastleBranch, Inc. The background check must be completed to attend clinical. All students must complete this background check even if a background check has already been done by another vendor. This is

an **annual** requirement. You must address all “adverse” issues in a timely manner.

**Drug & Alcohol Screening:** Drug and Alcohol screening is required and is handled by an external vendor, currently the vendor is Castle Branch, Inc. All students must complete this screening check even if a screening has already been done by another vendor. This is an **annual** requirement.

**HIPAA / OSHA for Healthcare Workers:** All students will complete this module which includes Infection Control, Bloodborne Pathogens, Safety and test via Blackboard on the Health Science / Nursing Hub. This is an **annual** requirement.

**Physical Exam:** A health history and physical exam with lab work for complete blood count (CBC) & routine urine analysis (UA) are required to be admitted into health science programs. The physical exam is an **annual** requirement.

**Proof of Health Insurance:** All clinical facilities require that students have health insurance. Students are required to upload a copy of their insurance card (front & back).

**Tuberculosis Screening:** A two-step PPD test is required for **all incoming students**. The two PPD tests must be completed **within 30 days** from the first PPD. A single PPD test is then required **annually**. If the PPD is positive, documentation that the student is free of symptoms of TB is required and must be repeated **yearly** while the student is in the health science program. A **Positive PPD** form is available on the Health Science Hub. Your healthcare provider must complete the Positive PPD form. Students may also submit lab results for the QuantiFeron TB Gold instead of the PPD.

**Vaccinations / Proof of Immunity:** Students must provide proof of immunity to Measles, Mumps, Rubella, Varicella, and Hepatitis B. Proof of immunity is determined by a titer; a laboratory test that measures the presence of antibodies in the blood. If the titer is positive, the individual has immunity to the disease. A negative titer means there are inadequate antibodies present. Therefore, the individual is not immune and must receive the vaccination(s). In addition to the above vaccinations, students must receive Tetanus, diphtheria, acellular pertussis (Tdap) vaccine every ten years and Seasonal Flu vaccine annually, usually from August – October.

**Learning Skills Support Services:** Academic support for students enrolled in any health science program is available at the TPSS campus. Services can be customized based on student needs; individual academic study consultation and referrals to college resources. Workshops for time management, note-taking skills, effective study skills, test-taking skills, and organizational tactics are offered throughout the semester.



**MC ID:** All students and faculty are required to wear their MC photo ID and present the ID upon entering the Health Sciences building.

**Parking & Transportation:** Students must provide their own transportation to and from campus and their clinical assignment. Students are responsible for any parking fees incurred. Students are expected to display MC parking permit when parking on campus.

**Pregnancy:** A student who is, or becomes, pregnant is strongly encouraged to notify her course instructors and/or the Title IX Coordinator as soon as possible. By doing so, the student and instructors and the Title IX Coordinator can collaborate and develop an appropriate plan for the continuation of the student's education in light of the unique nature of the College's nursing and health sciences programs and their clinical requirements, as well as particular challenges the student may face while pregnant or when recovering from childbirth (e.g., missed classes, make-up work, etc.). However, the choice to declare a pregnancy is voluntary, and a student is not required to disclose this information to the College. The College cannot ask the student to provide medical documentation or clearance for participation in clinical, however, the student is reminded that the program has Technical Standards that each student must meet to ensure the safety of students and patients. Students should consult with their healthcare provider to determine if they meet those Technical Standards. [TitleIX@montgomerycollege.edu](mailto:TitleIX@montgomerycollege.edu)

## Diagnostic Medical Sonography

### **Mission, Goals and Philosophy**

The philosophy and goals of the program interface with those of Montgomery College itself. The Program of Diagnostic Medical Sonography shares these goals, promoted by the college in its support of professionalism and academic excellence and the provision of qualified faculty. We offer a carefully designed academic environment, opportunities for on and off-campus reinforcement of lecture material (including clinical practicum) as well as other opportunities for professional and personal growth and development.

Any student who completely meets these standards (covered on the succeeding pages) and who is eligible for graduation should be able to function within a clinical setting as an entry level diagnostic medical sonographer.

Humanistic attitudes such as empathy, compassion and trust are fostered in both the didactic and clinical areas. The faculty believes that humanistic qualities are of key importance in any allied health profession. Through the cultivating of interpersonal relationships with patients and fellow health-care professionals, self-awareness and self-actualization may be enhanced.

The faculty constructs behavioral and performance goals throughout the program to produce graduates who are highly proficient and competent in the art and science of sonography.

Students will become knowledgeable in the theoretical foundation of their profession and become capable of functioning in a variety of clinical settings, which utilize the latest state-of-the-art imaging equipment and modalities.

As in any learning experience, Diagnostic Medical Sonography Program faculty will play the role of facilitator to the student. A competency-based program in which the didactic and clinical instruction is closely correlated will help students develop into professionals who are proficient in the art of problem solving. The faculty guides and directs the students in discovering the role that they must play by assisting them to actively participate and become responsible for their learning process in order for them to become proficient as practicing sonographers.

Finally, the program faculty feels that certification by the American Registry of Diagnostic Medical Sonographers is the “gold standard” for certification and should be an immediate goal of every graduate of this program. This certification plays a pivotal role in creating employment opportunities as well as other opportunities to contribute to the profession. The DMS Program encourages its graduates to complete their board requirements and take their exams within six months after graduation. Beyond this period, anyone who has completed the program and has not taken the board exams are advised to re-enroll or to form study circles to equip themselves with the necessary tools to pass the board exams. Graduates should be willing to share their knowledge with fellow sonographers, future and current students, and other allied health workers. Continuing education will enable these emerging sonographers to assume higher levels of responsibility in their employment setting, thereby creating opportunities for advancement up the corporate ladder.

The goal of the DMS Program is to:

- To prepare competent entry-level adult cardiac sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains; and/or
- To prepare competent entry-level general sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains; and/or
- To prepare competent entry-level vascular sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains

### Organizational Structure

Linda Zanin, RDMS Program Coordinator; Co-Program Director (Concentration Coordinator) General Sonography	Lee Shryock, RDMS Clinical Coordinator Co-Clinical Coordinator General Sonography
Matt Theis, RVT Co-Program Director (Concentration Coordinator) Co-Clinical Coordinator Vascular Sonography	Biruk Teklehaymanot, RDMS Co-Program Director (Concentration Coordinator) Co-Clinical Coordinator Echocardiography

### Accreditation

Montgomery College is accredited by the Middle States Association of Colleges and Secondary Schools, and the Program of Diagnostic Medical Sonography is accredited by the Commission on Accreditation of Allied Health Educational Programs (CAAHEP).

The Program of Diagnostic Medical Sonography is designed to meet or exceed the standards set by CAAHEP. Any student who completely meets these standards (covered on the succeeding pages) and who is eligible for graduation should be able to function within a clinical setting as an entry level diagnostic medical sonographer.

The Diagnostic Medical Sonography Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS). Additional information on the DMS program accreditation status and the standards and guidelines may be obtained online at [www.caahep.org](http://www.caahep.org) or by submitting a request to: CAAHEP, 9355 113th St. N, #7709, Seminole, FL 33775.

Requests for information can be sent to: JRC-DMS, 6021 University Boulevard, Suite 500, Ellicott City, MD 21043.

## **Program Outcomes**

Upon completion of this program a student will be able to:

- A. Obtain, review, and integrate pertinent patient history and supporting clinical data to facilitate optimum diagnostic results.
- B. Perform appropriate procedures and record anatomical, pathological, and/or physiological data for interpretation by a physician.
- C. Record, analyze, and process diagnostic data and other pertinent observations made during the procedure for presentation to the interpreting physician.
- D. Exercise discretion and judgment in the performance of sonographic and/or other diagnostic services.
- E. Demonstrate appropriate communication skills with patients and colleagues.
- F. Act in a professional and ethical manner.
- G. Provide patient education related to medical ultrasound and/or other diagnostic vascular techniques and promote principles of good health.

## **Learning Outcomes**

Knowledge gained in the clinical setting is directly related to didactic education and will need to be retained in order to draw and maximize direct parallels.

1. Demonstrate knowledge and application of ergonomic techniques
  - Industry standards and OSHA guidelines.
  - Types of work-related musculoskeletal injuries (MSI).
  - Best practices for prevention of MSI.
2. Demonstrate knowledge and application of types and methods of infection control.
  - Standard precautions relating to patient safety, isolation procedures, aseptic and sterile technique, equipment, environment, and personal safety.
  - Use and to dispose properly materials used in a surgical or non-surgical procedure that require ultrasound imaging.
3. Demonstrate knowledge and application of patient care.
  - Compliance with program and clinical education facility policies and procedures.
  - Compliance with clinical education facility policies and procedures with respect to Patient Bill of Rights and patient directives.
  - Knowledge of medical/legal implications of patient interaction/management.

- Recognize life-threatening situations and ability to implement emergency care.
  - Formulate questions that would draw pertinent information from the patient.
  - Anticipate and be able to respond to the needs of the patient.
4. Demonstrate interpersonal skills that build rapport and empathetic communications with patients and their families across socioeconomic, racial, and cultural boundaries.
- Provide patient-focused care with respect for patient's biological differences, diversity, and needs.
  - Recognize differences in belief systems, values, languages, religions, and health practices that influence the medical care of culturally diverse populations. Provide compassionate treatment of patients and respect for their privacy and dignity.
  - Build rapport, and employ active listening to communicate compassionately, effectively, and in culturally and emotionally appropriate ways, both verbally and in writing, with patients, their families and colleagues.
  - Reporting and documentation of incidents and/or adverse reactions.
5. Demonstrate comprehension and application of medical ethics and law.
- Uphold a patient's right to privacy and adhere to HIPAA guidelines.
  - Follow procedure and adhere to electronic documentation and transmission of medical records.
  - Uphold risk management.
  - Acquire Informed consent.
  - Documentation of clinical incidents.
  - Adhere to professional scope of practice and clinical standards, and professional code of ethics.
6. Demonstrate comprehension and application of diagnostic medical sonography.
- Knowledge of sonographic procedures.
  - Correlating diagnostic and imaging procedures.
  - Recognition of sonographic appearances of normal and abnormal conditions.
7. Obtain, interpret, document and communicate relevant information related to examinations.
- Present documented images to a radiologist for evaluation.
  - Clinical information and historical facts from the patient and the medical records, which may affect the diagnostic examination.
  - Review results of previous studies relevant to the current case.
  - Measure anatomy and distinguish when an organ has pathologic conditions.
  - Examination findings that require immediate clinical response

and notify the interpreting physician.

8. Demonstrate awareness of roles and responsibilities.
  - Demonstrate awareness of roles and responsibilities of healthcare professions to effectively communicate and collaborate in the healthcare environment.
  - Utilize skills that support team development, conflict resolution and inter- professional communication and education.
  - Communicate effectively with patients and other health care professionals.
  - Work effectively as a member of a healthcare team.
9. Identify and evaluate anatomic structures.
  - Knowledge of anatomy, physiology and pathophysiology.
  - Normal sonographic appearances of tissue, muscles and skeletal structures.
  - Differentiation of normal from abnormal sonographic findings.
  - Demonstrate knowledge of clinical disease processes with application to sonographic and Doppler patterns.
10. Demonstrate knowledge, comprehension, and application of biological effects.
  - Always follow ALARA principles when scanning.
11. Demonstrate knowledge, comprehension, and application of image production and optimization.
  - Produce an ultrasound image of diagnostic quality.
  - Knowledge of ultrasound physics.
  - Properly identify Doppler waveforms and determine their significance.
  - Accurately determine abnormal flow of hemodynamic significance.
12. Demonstrate performance through clinical competencies.
  - Assist a qualified sonographer or medical practitioner with ultrasound imaging and/or procedures.
  - Use clinical tracking through Trajecsys.
  - Use of proper ergonomics.
  - Follow all safety and infection control procedures and policies.
  - Obtain and apply clinical history.
  - Successfully use oral and written communication skills.
  - Demonstrate image optimization techniques.
  - Act in a professional manner at all times.
  - Document sonographic findings for communication with interpreting physician.
  - Finalize examination for permanent storage.
  - Follow process for reporting of critical findings.

## Program of Study

### General Education Requirements

#### Foundation Courses

English foundation 3 semester hours (ENGF)

Mathematics foundation 3 semester hours (MATF)

#### Distribution Courses

BIOL 150 - Principles of Biology I 4 semester hours (NSLD)

COMM 108 - Foundations of Human Communication 3 semester hours (ARTD/HUMD)

PSYC 102 - General Psychology 3 semester hours (BSSD)

General Education Elective

BIOL 212 - Human Anatomy and Physiology I 4 semester hours (GEEL)

#### Other Requirements

BIOL 213 - Human Anatomy and Physiology II 4 semester hours (NSLD)

HINM 115 - Medical Terminology I 2 semester hours

HINM 116 - Medical Terminology II 2 semester hours

HINM 120 - Concepts of Disease 3 semester hours

PHYS 103 - Introduction to Physics 2 semester hours

### General Sonography Area of Concentration

#### First Semester – Summer I

SONO 101 - Orientation to Diagnostic Medical Sonography 3 semester hours

#### Second Semester – Fall I

SONO 105 - Acoustical Physics I 2 semester hours

SONO 204 - Introduction to Sectional Anatomy 3 semester hours

SONO 261 - Sonography Practicum I 1 semester hour

#### Third Semester – Spring I

SONO 112 - Abdominal Sonography I 3 semester hours

SONO 123 - Obstetrics/Gynecology Sonography I 3 semester hours

SONO 205 - Acoustical Physics and Instrumentation II 2 semester hours

SONO 262 - Sonography Practicum II 1 semester hour

#### Fourth Semester – Summer II

SONO 263 - Sonography Practicum III 2 semester hours

#### Fifth Semester – Fall II

SONO 264 - Sonography Practicum IV 4 semester hours

SONO 232 - Abdominal Sonography II 3 semester hours

SONO 243 - Obstetrics/Gynecology Sonography II 3 semester hours

#### Sixth Semester – Winter II

SONO 224 - Seminar-Diagnostic Medical Sonography 1 semester hour

SONO 265 - Sonography Practicum V 1 semester hour

#### Seventh Semester – Spring II

SONO 210 - Breast Sonography 1 semester hour

SONO 266 - Sonography Practicum VI 4 semester hours

**Total Credit Hours for General Sonography Area of Concentration: 70**

**Echocardiography Area of Concentration**

**First Semester – Summer I**

SONO 101 - Orientation to Diagnostic Medical Sonography 3 semester hours

**Second Semester – Fall I**

SONO 105 - Acoustical Physics I 2 semester hours

SONO 204 - Introduction to Sectional Anatomy 3 semester hours

SONO 261 - Sonography Practicum I 1 semester hour

**Third Semester – Spring I**

SONO 205 - Acoustical Physics and Instrumentation II 2 semester

SONO 262 - Sonography Practicum II 1 semester hour

**Fourth Semester – Summer II**

SONO 263 - Sonography Practicum III 2 semester hours

SONO 245 - Adult Echocardiography I 3 semester hours

**Fifth Semester – Fall II**

SONO 264 - Sonography Practicum IV 4 semester hours

SONO 229 - Pediatric Echocardiography 3 semester hours

SONO248 - Adult Echocardiography II 3 semester hours

**Sixth Semester – Winter II**

SONO 224 - Seminar-Diagnostic Medical Sonography 1 semester hour

SONO 265 - Sonography Practicum V 1 semester hour

**Seventh Semester – Spring II**

SONO 266 - Sonography Practicum VI 4 semester hours

**Total Credit Hours for Echocardiography Area of Concentration: 66**

**Vascular Area of Concentration**

**First Semester – Summer I**

SONO 101 - Orientation to Diagnostic Medical Sonography 3 semester hours

**Second Semester – Fall I**

SONO 105 - Acoustical Physics I 2 semester hours

SONO 204 - Introduction to Sectional Anatomy 3 semester hours

SONO 261 - Sonography Practicum I 1 semester hour

**Third Semester – Spring I**

SONO 205 - Acoustical Physics and Instrumentation II 2 semester

SONO 262 - Sonography Practicum II 1 semester hour

SONO 246 - Vascular Sonography I 3 semester hours

**Fourth Semester – Summer II**

SONO 263 - Sonography Practicum III 2 semester hours

**Fifth Semester – Fall II**

SONO 264 - Sonography Practicum IV 4 semester hours

SONO 256 - Vascular Sonography II 3 semester hours

**Sixth Semester – Winter II**

SONO 224 - Seminar-Diagnostic Medical Sonography 1 semester hour



SONO 265 - Sonography Practicum V 1 semester hour  
**Seventh Semester – Spring II**  
SONO 266 - Sonography Practicum VI 4 semester hours  
**Total Credit Hours for Vascular Area of Concentration: 63**

The Diagnostic Medical Sonography curriculum is dependent upon proper sequencing of courses. The general education courses in the DMS curriculum are to be completed prior to the DMS program. SONO courses must also be completed in the appropriate sequence. It is the responsibility of each student to meet all pre- and co-requisite courses and third-party requirements. A student will be denied registration and administratively dropped from a course if pre- and co-requisite requirements have not been met.

### **Grading Scale**

The DMS Program percentage and letter-grading system is as follows: Students receiving a grade below a **78%** in a didactic course must repeat the course satisfactorily before proceeding to the next semester in the DMS Program. Students receiving a grade below an **86%** in a clinical course must repeat the course satisfactorily before proceeding to the next semester in the DMS Program.

Each Scanning Lab Assignment and Clinical Competency must meet the minimum benchmark (see scanning lab rubric grading criteria) to demonstrate scanning competency with a minimum grade of **86%**. Successful completion of ALL Scanning Lab Assignments and Clinical Competencies is required for completion of the didactic and/or clinical course.

Students receiving a grade below a 78% on a midterm and/or final exam are required to remediate the exam (See Remediation Policy in course syllabus). Failure to remediate a midterm or final exam with a grade below a 78% will lead to the unsuccessful completion of this course.

Students receiving a grade below an 86% on a clinical scan exam are required to remediate the scan exam (See Remediation Policy) Failure to remediate a scan exam with a grade below an 86% will lead to the unsuccessful completion of this course.

Provided (Below) is the grading scale used for all **Didactic** courses in the DMS Program. Course grades are not rounded up.

93-100%	A
86-92%	B
78-85%	C
77% below	F

Provided (Below) is the grading scale used for all **Clinical** courses in the DMS Program. Course grades are not rounded up.

93-100%	A
86-92%	B
85%-below	F

Students must maintain a minimum grade of “C” in all Diagnostic Medical Sonography Didactic courses, a minimum grade of “B” in Clinical courses and maintain an overall grade point average of 2.0 to be considered in good standing in the program and eligible to advance to the next semester.

In all clinical courses, the student, at the end of the course, must pass a scan exam with a grade of 86% or higher. Students not meeting all above criteria will not be permitted to continue taking DMS courses. Since DMS courses usually are offered once a year, students who fail can continue with their general education courses in the curriculum and may apply for readmission into the program the following year. (Refer to Readmission Policy in course syllabus).

### **Progression Policy**

The Diagnostic Medical Sonography curriculum is dependent upon proper sequencing of courses. The general education courses in the DMS curriculum are to be completed prior to the DMS program. SONO courses must also be completed in the appropriate sequence. It is the responsibility of each student to meet all pre- and co-requisite courses and third-party requirements. A student will be denied registration and administratively dropped from a course if pre- and co-requisite requirements have not been met.

The student is to meet with their designated faculty advisor to plan a course of study for each year while in attendance at Montgomery College. Any student who is unable to satisfactorily meet curriculum requirements will not progress in the DMS curriculum. Any student who withdraws from the DMS Program, regardless of the reason, will be subject to readmission criteria as set by the Diagnostic Medical Sonography program. Meeting previously established criteria, however, does not guarantee automatic re-entry.

Progression in the DMS program is dependent on the successful completion of the ARDMS SPI exam prior to the start of their second year of study in the program.

Students are required to sit for all eligible concentration specialty exam(s) prior to graduation.

### **Course Policies**

The DMS program at Montgomery College offers all its professional courses (SONO courses) via Blackboard platform. Our professional course of study uses online learning modules combined with face-to-face hands-on scanning

labs. Most of the hybrid online learning courses at Montgomery College, including the DMS courses, are a combination of synchronous (face-to-face in the classroom/lab) and asynchronous learning (material posted on Blackboard). Asynchronous is defined as course material that is not delivered in real time and is delivered via Blackboard. Students sign on to a Montgomery College Blackboard where they access the syllabus and other course materials, participate in discussion forums, complete quizzes and tests, upload assignments and collaborate with the instructor and other students. In addition to course delivery through Blackboard, each SONO course has required face-to-face lecture/lab (on-campus) as part of the learning experience.

In addition to the Blackboard format, MCDMS students are introduced to online tools such as Wiki's and the Trajecsys Clinical Tracking System.

### **Exam Policies -**

Click on the Course Content tab to find the Module test. All testing will be proctored virtually via Zoom. Everything presented, discussed and reviewed during the week (and/or prior week) may be included on the test. Tests are intended to test your knowledge and experience. Tests are timed and approximately 1 minute is provided for each question. Testing must be completed in one sitting and once the time has expired, Blackboard will automatically submit your test. **MAKE SURE TO SAVE** as you progress through a test or answer selections will be lost.

#### Testing Day Policies

1. All testing is completed online via Zoom and will be proctored by the MLC and DMS faculty.
2. A student arriving late for a test must complete the test in the remaining scheduled time.
3. A student arriving late for a test **MAY** be denied access to the test if they are more than 15 minutes late.

#### Test Review Policy

Students are encouraged to review questions missed on tests. Review of tests will take place immediately following virtually testing. Students have 30 minutes to review questions missed and one week from posted grade to petition for points missed. Faculty will not entertain giving points back on any graded work after one week from when the grade is posted.

Do not attempt to review during/immediately following a scheduled test time, students must wait until the test period is over. Copying of any test questions is considered cheating, as you cannot copy and paste from any test at any time in this course. Giving or receiving of test questions is considered cheating.

**Note:** Refer to the course schedule for the due dates; any changes to the schedule will be placed in the announcements. **NO** test grade will be dropped; and tests may **NOT** be repeated at the student's request to raise a grade.

## Lab and Clinical Policies

- A. The following criteria must be adhered to in all clinical Diagnostic Medical Sonography courses in order to receive a satisfactory performance evaluation. Failure to meet these criteria may be identified by any DMS program faculty member, both in or out of the clinical facility, and will subject the student to immediate and appropriate disciplinary consequences.
1. Adhere to all college policies, including the MC Student Code of Conduct.
  2. Adhere to the student role, as outlined by clinical affiliates.
  3. Adhere to the SDMS Code of Ethics for sonographers.
  4. Dress appropriately in accordance with the clinical DMS Uniform Code and/or the assigned clinical affiliate.
  5. Follow HIPPA guidelines, regarding patient confidentiality, always.
  6. Demonstrate respect for patient privacy and individual rights as outlined in the Patient's Bill of Rights.
  7. Deliver optimum patient care in a non-discriminatory manner.
  8. Document all services provided using proper (Standard American) English (verbal and written).
  9. Report immediately, any errors of omission to the program director.
  10. Adhere to OSHA regulations.
  11. Demonstrate an ability to communicate accurately in (Standard American) English.
  12. Demonstrate physical, cognitive and psychological competence.
  13. Demonstrate a caring, empathetic and non-selfish attitude with proper consideration for individual's age, sex, culture, religion and beliefs.
  14. Show respect for individuals and avoid the use of words or body language that could be construed as derogatory.
  15. Have reliable means of transportation.
  16. Physically able to perform ultrasound.
  17. Utilize the internet or websites to search for information pertaining to ultrasound.
  18. All graded work is due before the final week of the semester. Work not completed by this due date will be recorded as a zero. All coursework must be completed prior to sitting for the Final Exam in didactic courses and before sitting for the scan exam in clinical courses.
- B. Scan Lab Assignments are to be completed during face-to-face lab sessions under faculty supervision. Scanning Lab Protocols should be followed when completing these assignments. The scanning Lab Protocols can be found under the Required Course Materials tab. For a complete listing of the required lab assignments and their due dates click on the Course Content tab and under each Weekly Module you will find scanning lab assignment due dates.

1. A grade of 86% or better must be received on each scanning lab assignment or the assignment will have to be repeated.
2. Scan lab assignments are competency-based, you must continue to attempt them until you receive a passing grade.
3. All scan lab assignments must be completed successfully to pass this course.
4. The Scanning Lab Assignment Grading Rubric can be found in the course syllabus and as an active link under each Scanning Lab Assignment.
5. Scanning lab assignments must be submitted within one week of the date the lab assignment is completed (don't hold onto lab assignments, once you complete them you need to turn them in to be graded) and they must be turned in by the due date.
6. Multiple attempts on Lab assignments may be required to receive a passing grade of 86%. Once the Lab Assignment has received a passing grade of 86%, all the attempts will be averaged together for the final grade assigned to that individual lab assignment. The final grade for each lab assignment may not be an 86% (that's ok) but at least one attempt has to be recorded at the 86% mark)
7. Students should try and scan multiple volunteers. Make sure to document the following information for all scanning work:
  - Date/time
  - Volunteer identifier
  - Integrated Patient History, Clinical Data and Ultrasound Findings Report
  - Make sure lab assignments in Blackboard are the images you want us to review, no extra images. The lab assignments we grade must be no older **than seven days.**
  - Label all studies in this format: Last Name Title of Lab Assignment date
  - AT NO TIME CAN YOU ADD IMAGES TO A LAB ASSIGNMENT THAT WAS TAKEN AT A DIFFERENT TIME and/or FROM A DIFFERENT PATIENT. If you turn in a lab assignment to be graded that has images from multiple different scanning attempts a grade of "zero" will be recorded.

#### C. Required & Optional Skills Enhancement Labs

1. Each Student is assigned an SEL that they are required to attend. In addition to the required SEL session, there are Optional SELs offered.
2. SEL is intended to provide additional opportunity for practice. Students are encouraged to attend to enhance their ultrasound skills. Students are required to provide their own volunteers to scan.
3. A published SEL schedule and sign-up with supervising instructor/dates/times can be found on the clinical wiki. <http://mcdmsclinical.pbworks.com/> . Remember to read and abide by the SEL rules stated on the clinical wiki page.
4. Important: Students may only attend Optional SELs supervised by faculty who hold the concentration credential for their specialty (RDMS, RDCS, RVT). This is to ensure that supervision and scanning guidance can be provided.

- D. Volunteer Scanning Policy on Campus in DMS Lab
1. DMS faculty and Staff are not permitted to volunteer to be scanned.
  2. Volunteers scanned in the lab do not count as graded competencies.
  3. Scanning volunteers and students are subject to laboratory guidelines and safety requirements.
  4. Transvaginal/Breast/Scrotal scanning requires a chaperone in lab.
  5. All Obstetric (OB) scan volunteers are scheduled through the DMS Administrative Assistant. All volunteers must complete required paperwork, read, and sign the Scan Waiver Forms prior to being scanned. Each volunteer will be pre-scanned by the supervising DMS faculty. OB scan volunteers need to have at least one complete unremarkable OB sonogram performed by their OB/Gyn Doctor prior to volunteering to be a scan volunteer.

## **Clinical Policies**

- A. Competency based clinical education has been established for the students enrolled in the Diagnostic Medical Sonography program. It is designed to permit accurate assessment of the knowledge, skills, and attitudes of students in the clinical education component of the program. Evaluation of students' clinical competencies must be completed by registered technologists under the direction of the Clinical Affiliate Supervisor.

All students must attend a minimum number of clinical training hours (see clinical syllabus). All students must complete clinical competencies in accordance with the requirement of their certification body.

B. Clinical Absences

All students must meet the required clinical hours. When a student will be absent from the assigned clinical site, the student must first notify the Clinical Instructor, followed by immediate communication to the Clinical Faculty and Clinical Coordinator. Absences from clinical must be made up as soon possible or within two weeks whichever is soonest. Students who have not completed their clinical hours within the clinical rotation period will not be allowed to advance to the next clinical course or in the case of the final clinical course; they will not be approved for graduation. In the event of a delay in graduation, successfully completed board exams completed are revoked by the ARDMS. The student will be responsible to reapply, purchase and successfully complete the concentration specialty board exams.

C. Clinical Education Objectives

Clinical - Fall Semester I

At the completion of the first clinical rotation, the student must

demonstrate by verbal, written and scanning performances, competency with the following skills:

- Provide basic patient care and comfort.
- Maintain infection control and utilize universal precautions.
- Demonstrate and characterize the sonographic patterns of normal abdominal pelvic anatomy from ultrasound images using ultrasound terminology.

#### Clinical – Spring Semester I

At the completion of the second clinical rotation, the student must demonstrate by verbal, written and scanning performances, competency with the following skills:

- Acquire basic sonographic exam skills and relate these with didactic education through clinical observation and applied hands-on experience in the optional scan lab.
- Provide basic patient care and comfort.
- Maintain infection control and utilize universal precautions.
- Demonstrate knowledge and understanding of physiology, pathology, and pathophysiology.
- Demonstrate knowledge and understanding of human gross and sectional anatomy.

#### Clinical - Summer Semester I

At the completion of the third clinical rotation, the student must demonstrate by verbal, written and scanning performances, competency with the concentration specialty skills (see clinical syllabus).

- Recognize and identify the sonographic appearance of normal anatomic structures, including anatomic variants and normal Doppler patterns:
- Recognize, identify, and appropriately document the abnormal sonographic of disease processes, pathology, and pathophysiology of the anatomy listed.
- Modify scanning protocols based on sonographic findings and differential diagnosis:
- History and physical examination related imaging, laboratory, and functional testing procedures
- Clinical differential diagnosis
- Role of ultrasound in patient management
- Recognize and identify sonographic patterns in clinical diseases
- Provide basic patient care and comfort
- Maintain infection control and utilize universal precautions

#### Clinical - Fall Semester II

At the completion of the fourth clinical rotation, the student must demonstrate by verbal, written and scanning performances, competency

with the following skills:

- Recognize significant clinical information and historical facts from the patient and the medical records, which may affect the diagnostic examination.
- Acquire proficiency in evaluating sonograms for image quality.
- Demonstrate knowledge and understanding of physiology, pathology, and pathophysiology.
- Effectively utilize instrumentation techniques to produce optimum diagnostic images of a more complex nature.
- Extend standard diagnostic testing protocol as required by patient history or initial findings.
- Perform within the scope of practice.
- Successfully complete all clinical competencies.

#### Clinical - Winter Semester II

At the completion of the fifth clinical rotation, the student must demonstrate by verbal, written and scanning performances, competency with the following skills:

- Interact with the interpreting physician with oral or written summary of findings as permitted by clinical affiliate.
- Recognize significant clinical information and historical facts from the patient and the medical records, which may affect the diagnostic examination.
- Demonstrate proficiency in evaluating sonograms for image quality.
- Effectively utilize instrumentation techniques to produce optimum diagnostic images of a more complex nature.

#### Clinical – Spring Semester II

At the completion of the sixth clinical rotation, the student must demonstrate by verbal, written and scanning performances, competency with the following skills:

- Recognize significant clinical information and historical facts from the patient and the medical records, which may affect the diagnostic examination. Identify life-threatening situations and implement emergency care as permitted by clinical affiliate.
- Review data from current and previous examinations to produce a written/oral summary of technical findings, including relevant interval changes, for the interpreting physician's reference.
- Recognize examination findings that require immediate clinical response and notify the interpreting physician of such findings.
- Perform within the scope of practice.



#### D. Clinical Practices and Policies

1. Attendance at clinical is mandatory.
2. A student who does not demonstrate safe clinical practice will be in violation of clinical practices and policies.
3. A student who does not demonstrate professional behavior and professional practice is subject to review by the faculty.
4. Safe clinical or professional practice is defined in Appendix B: Adhering to the *Patients' Bill of Rights*.
5. Performing clinical duties consistent with the professional Code of Ethics - Appendix C.
6. Adhering to the code of behavior/conduct outlined in the Diagnostic Medical Sonography program handbook.
7. Adhering to all clinical practices and policies of the clinical site and Diagnostic Medical Sonography program.

#### E. Policy Governing Clinical Education Scheduling

The purpose of the clinical assignment is to correlate didactic knowledge with practical skills and attitudes. The total number of students assigned to any clinical site shall be determined by the Diagnostic Medical Sonography program and approved by program accreditation bodies. The student is subject to all rules and regulations of the clinical affiliate. The clinical affiliate reserves the right to suspend or terminate from the site a student who does not adhere to established policies of the program or the clinical affiliate. A student who does not maintain appropriate behavior may be suspended or dismissed immediately.

#### F. Role of Clinical Coordinator/Clinical Faculty

The role of the Clinical Coordinator and Clinical Faculty is that of a clinical facilitator, advisor, and evaluator. The Clinical Coordinator and Clinical Faculty combine college and clinical affiliate resources in order to transition students into their assigned clinical settings. Clinical grading criteria are established and implemented in direct consultation with the Program Coordinator, Clinical Faculty, and a pool of clinical instructors, alumni and current students. Clinical Coordinator and Clinical Faculty are responsible for the collection, evaluation, grading, and documentation of all clinical requirements. The Clinical Coordinator and Clinical Faculty conduct scheduled clinical visits as required by the clinical course. Such visits document the student's clinical progress at the site.

#### G. Clinical Rotations

Any clinical components of the DMS Program will differ from the traditional classroom experience as clinical experiences entail the operation of various modalities of diagnostic and diagnostic-related equipment in the delivery of care to actual ("real") patients. Adherence to all established rules (MCDMS, affiliate, OSHA, Patient Bill of Rights,

etc.) shall be required of all students in the delivery of care to patients, regardless as to race, gender, country of national origin, etc. Clinical rotation requirements must be completed within the course deadline in order to advance to the next clinical level.

#### H. Student Assignment to Clinical Affiliate

Refer to Criteria for *Selection of Clinical Rotation Site*.

The program does not provide accommodations for personal needs.

Students should be aware that the DMS program is a full-time responsibility. The program should not be expected to work around the student's schedule.

All students assigned to a clinical affiliate should refer to the corresponding course syllabus (SONO 261, 262, 263, 264, 265, 266, etc.) for specific hourly investment required, as well as for guidelines as to how clinical performance will directly impact their final grade.

Each student must meet the specific requirements of the clinical site and evidence of meeting those requirements may be required on a case-by-case basis. Accordingly, students that do not promptly submit the required clinical documentation will forfeit the use of those sites.

#### I. Clinical Assignment to Current Affiliate of Student Employment

Students shall be treated as trainees who have no expectation of receiving compensation for clinical training or future employment from the Hospital. Students employed in a clinical affiliate will not be assigned at their place of employment for their clinical rotation assignment. Any student employed in any capacity by and at the physical location of any MCDMS clinical affiliate must immediately notify program coordinator of this status to properly ensure the prevention of "role conflict." Violation of this policy may result in disciplinary actions.

#### J. Criteria for Selection of Clinical Rotation Site

The criteria for selection of clinical rotation site for each student is based primarily on two main goals of a) providing the student with a balanced experience in a working environment that would enhance their scanning skills and b) providing the student with a well-rounded experience to a variety of medical cases. Certain specific goals, such as student's desire to work in a pediatric setting, are considered on a case-to-case basis. Students are expected to have the mobility to be assigned to any clinical site selected by the clinical faculty committee.

Under no circumstances are students allowed to report to a clinical affiliate, for purpose of official MCDMS clinical training, neither without proper compliance to the program requirements nor without the prior consents of his/her Clinical Coordinator. Clinical Rotation Selection Process

The Clinical Faculty Committee, composed of the Clinical Coordinator and the Clinical Faculty, is responsible for assigning students to the clinical rotation sites. Clinical sites are assigned and not requested by students. Students do not negotiate their own clinical rotation assignment.

Before students are assigned to the clinical affiliates, the Clinical Instructors and Administrators of the sites are notified of the student's name, the student's level of training in the program, the clinical rotation period, and other such matters that comply with the agreement between the College and the Clinical Affiliate. In order to provide the sites with the information they need, all clinical requirements for the rotation must be submitted by the deadlines.

#### K. Clinical Education Schedule Policies

1. Compliance to clinical requirements is mandatory and is tracked. Failure to update requirements may lead to termination of clinical rotation.
2. Scheduling - Clinical rotation assignments are provided by the respective Concentration Clinical Coordinators.
  - a. Starting time for Clinical Education centers is set by the Clinical Instructor at each institution. A clinical shift is eight hours usually between the time of 7:30 AM and 6:00 p.m.
  - b. Day-to-day scheduling, scanning station or technologist assignments will be determined by the Clinical Instructor at each clinical affiliate.
  - c. The Clinical Instructor will not schedule students for holidays or scheduled College closings.
  - d. All changes in clinical schedules must be made in advance with the approval of the assigned Clinical Instructor and with the DMS Clinical Coordinator Faculty.
  - e. Clinical schedules will not be changed to accommodate student personal/work schedules.
  - f. Changes to schedule must be documented on the Clinical Schedule Change Form (found in Trajecsys). The clinical change form must be approved by the clinical instructor and clinical faculty and the completed form is submitted via blackboard course email.
  - g. Clinical schedules may be changed to accommodate required courses at the College when advance notice of at least 2 weeks is given the Clinical Coordinator.
  - h. Students should be allowed the same time off for breaks as the staff sonographers.
  - i. Student requests to work additional time beyond that required by the course must be accompanied by a written approval from the Clinical Instructor of the clinical affiliate where the student is

assigned. A maximum of 40 hours a week of combined clinical/didactic hours may not be exceeded.

- L. Clinical Reporting: Students are required to submit their course work in Blackboard and Trajecsys.
- a. Each student has the responsibility of recording in the Trajecsys Report System, the daily time and case log of studies participated in at their assigned clinical site. The time and case logs are submitted via the Trajecsys Clinical Tracking System and approved by the Clinical Instructors and reviewed by the Clinical Coordinator/Clinical Faculty.
  - b. Students are cautioned, however, to record their time logs and case logs correctly in Trajecsys and under no circumstances should a student record information (time, etc.) falsely. If there is any misrepresentation of hourly clinical investment, such action would constitute falsification of records and all appropriate disciplinary action will be taken.
  - c. Clinical evaluation of students is reported by the Clinical Instructors using Trajecsys.
  - d. Clinical competencies are submitted via Blackboard clinical course.

M. Pre- and Post- Scanning Assessment

At all clinical levels, students are required to successfully complete a scan assessment/exam to demonstrate clinical proficiency to begin and to proceed to the next level of training. Students are provided with a set time period to complete the scan exam. Guidelines for the scan exam will be announced one week prior to the exam. Any student who does not pass the scan exam with a minimum grade of 86% will be required to repeat the assessment exam.

Scan Assessment protocols are decided by the Clinical Faculty. Clinical assistance and protocol sheets are prohibited inside the scan station during an assessment exam.

If the repeat scan assessment exam is unsuccessfully completed a “remediation plan of action” is put into place to address the students’ scanning progress.

Scanning Policy at Clinical

- Graded competencies must be performed on one patient, for the entire exam, not on volunteers.
- Practice competencies may be performed on volunteers.
- The submitted images must be no older than **seven days**.
- At no time are students permitted to add images to a practice or graded competency that were taken at a different time and/or from a different patient.
- If you turn in a lab assignment to be graded that has images from multiple different scanning attempts a grade of “zero” will be recorded.

N. Guidelines for Clinical Supervision of DMS Students

This policy serves as a guide for students, Clinical Instructors and staff sonographers regarding student supervision. A DMS student may

perform diagnostic imaging under either direct or indirect supervision from a properly credentialed clinical instructor.

Indirect supervision - The student will perform an imaging study with the assigned sonographer. The sonographer may not be present in the exam room; however, the sonographer is available to assist the student.

Direct supervision - The student performs an imaging study with an assigned supervising sonographer.

A student is never to perform a clinical examination without either the direct or the indirect supervision of their assigned clinical instructor.

A novice DMS student will always perform clinical examinations under direct supervision of their assigned clinical instructor. As the student improves his/her knowledge of ultrasound, anatomy, physiology, pathology, instrumentation, pathophysiology, and clinical competency the clinical instruction will progress to more indirect supervision to allow the student time to perfect their scanning skills, timing and to gain confidence. The clinical instructor will always be immediately available and is always responsible for the exam in progress.

## O. Uniform Policy

The personal appearance and demeanor of each student shall reflect the highest standards of the individual, the college, as well as the profession, as they are indicative of individual interest and pride.

Uniforms, which are required, shall be clean and pressed. Shoes shall be clean and white at all times. The DMS white lab coat and identification badge must be worn at all times while on affiliate grounds except in instances where the affiliate uniform policy is such that there is a requirement for visiting students to adhere strictly to the affiliate's uniform policy (e.g. MC uniforms or scrubs provided by the affiliate).

Any student reporting to his or her assigned clinical affiliate in improper uniform or attire or with a soiled, unprofessional appearance, will be asked to excuse him/herself from affiliate premises until the infraction is rectified. (Any clinical time missed will have to be made up). Students are also expected to wear their Student ID and uniform at all times in the DMS lab and MC events.

The following provides additional information on the MCDMS uniform policies:

1. Uniforms are purchased through Meridys Uniform Company.

<https://meridys.com/>

a. Approved DMS uniforms with MC logo

b. White DMS lab coat purchased from Meridys Uniform.

c. Shoes worn must be white and enclosed.

2. Identification badge:

- a. Montgomery College student identification badges must be always worn, both on campus and at the clinical site.
- b. DMS Student Name Badges are purchased through Meridys.

3. Hair

- a. Females: Hair must be clean and neatly combed or braided. Long hair is considered inappropriate when it falls in front of the face. Long hair must be braided or tied back behind the neck.
- b. Males: Mustaches, beards and long hair must be clean, manageable, groomed (trimmed, etc.) and should never be unruly.
- 4. Accessories: Use of cosmetics should be discreet (including perfume, cologne, hair sprays, lotions, etc.) and kept to a minimum. Fingernails should be kept at a reasonable length to allow proper operation of diagnostic procedures. hand washing regulations. Permissible jewelry includes watches, wedding bands, engagement rings and earrings.

P. Employment Policy

Students shall be treated as trainees who have no expectation of receiving compensation for clinical training or future employment from the Hospital. Students employed in a clinical affiliate will not be assigned at their place of employment for their clinical rotation assignment.

Any student employed in any capacity by and at the physical location of any MCDMS clinical affiliate must immediately notify program coordinator of this status to properly ensure the prevention of "role conflict." Violation of this policy may result in disciplinary actions.

Q. Clinical Accountability

As the faculty believes that the physical and emotional welfare of (affiliate) patients takes the highest priority, any student who demonstrates clinically unsafe patient care practices, thereby jeopardizing patient welfare, may subsequently be dismissed from the program. Behavior, which jeopardizes or potentially jeopardizes the operations and management of the healthcare affiliate (physical or mental health problems, skill deficits, anxiety, substance/alcohol use, etc.), may also lead to dismissal from the program.

R. Clinical Practice Guidelines

- 1. Each practice and graded competency must be submitted promptly and properly documented according to the following:
  - a. The clinical practice competency rubric is used to provide feedback on scan assignments completed during skills enhancement labs and/or at the assigned clinical site. Practice Competencies must meet All Competent/Approved Criteria.

- b. The clinical graded competency rubric is used to provide feedback by the Clinical Faculty on scan assignments completed at your assigned clinical site. The graded competency grades are used in the course grade calculations. A graded competency may only be turned in after a practice competency has been approved and all feedback provided is taken into consideration. For this reason, practice and graded competencies may not be turned in on the same day. All graded competencies must be evaluated by the supervising clinical instructor, via the Trajecsys Report System, and clinical faculty.
    - c. Each practice/graded competency must be submitted in the corresponding Blackboard assignment drop box, the corresponding patient history form.
  2. Practice competencies may be completed on patients or on volunteers. Graded competencies must be performed on patients at assigned clinical sites. Practice and graded competencies must be completed on the same patient from beginning to end. All practice competencies must be completed in the DMS lab or at college approved clinical site. Each Practice & Graded competency for the same type of exam must be performed on different patients. This is the same policy for lab assignments.
  3. Patient's privacy must always be protected on documents submitted. Anonymize the patient's name from images, disc labels, the films, or any hard-copy images turned in for practice/graded competency.
  4. Document all requested images; label all pictures appropriately; and remember to properly operate your field-of-view, focal zone, transducer selection and overall gains, etc.
  5. The Clinical Instructor's Evaluation must be completed via the Trajecsys Report System by the deadline set in the syllabus.
  6. Post-clinical assessments/Scan Exams are conducted at the end of each clinical rotation.
  7. Graduating students are expected to complete their required clinical hours prior to graduation.

All clinical requirements need to be satisfied before clearance for graduation is provided.

<b>Required totals of clinical hours</b>	
1st year, Fall semester	15 wks x 8 clinical hours per week = 120 clinical hrs
1st year, Spring semester	15 wks x 8 clinical hours per week = 120 clinical hrs
2nd year, Summer	8 wks x 30 clinical hours per week = 240 clinical hrs
2nd year, Fall semester	15 wks x 32 clinical hours per week = 480 clinical hrs
2nd year, Winter	4 wks x 30 clinical hours per week = 120 clinical hrs
2nd year, Spring semester	15 wks x 32 clinical hours per week = 480 clinical hrs

## Technical Standards

To successfully complete the clinical component of the Diagnostic Medical Sonography program, the student must be capable of carrying out all assigned duties and technical standards of a professional Sonographer. These Technical Standards are based on the minimum tasks to be performed by graduates of the program as recommended by the Society of Diagnostic Medical Sonography, the American Society of Radiologic Technologists, Montgomery College and Thomas Jefferson University. Listed below are the technical standards that all applicants must meet in order to participate in and complete the general sonography, cardiac sonography and vascular sonography programs. These Technical Standards will be reviewed by the DMS Advisory Committee during the annual meeting.

### Technical Standard I: Observation

- Students must be able to observe demonstrations and participate in physical examination sessions, clinical skills workshops, observe the difference of normal versus pathological states. They must be able to obtain a medical history and perform a complete physical examination in order to integrate findings based on these observations and to develop an appropriate diagnostic and treatment plan.
- Students must have sufficient visual acuity to read sonography prescriptions and patient charts, observe conditions of the patient and evaluate sonographic images.
- Students are required to view sonograms, including color distinctions and shades of gray.
- Students must have the ability to perceive pertinent detail in objects or in pictorial or graphic material; to make visual comparisons and discriminations and see slight differences in shape, contour and texture of organs and vascular structure; to comprehend forms in space and understand relationships of plane and solid objects; the ability to visualize objects of two or three dimensions.
- Students must be able to use auditory, tactile and visual senses to assess the physiological status of the patient.

### Technical Standard II: Communication

- Students must be able to communicate effectively and sensitively with patients, their families, and members of the health team. Students must be able to communicate effectively with patients from different social and cultural backgrounds, as well as develop effective professional rapport with patients and co-workers. Students must be able to record examination and diagnostics results clearly, accurately and efficiently. Students must be able to communicate effectively in English with patients, family and other health care professionals in a variety of patient settings.
- Students must have sufficient auditory perception to receive verbal communication from patients and members of the healthcare team to obtain and record an accurate patient history and to assess the health needs of people through the use of monitoring devices such as intercom systems, cardiac monitors, respiratory monitors and fire alarms.
- Students must have sufficient communication skills in English (verbal, reading, writing) to interact with individuals and to communicate their needs promptly and effectively, as may be necessary in the patient's/client's interest, collaborate with physicians and other members of the healthcare team, and provide an oral or written summary of the technical findings to the physician for medical diagnosis.



- Students must be able to read, write and communicate effectively in English.

### **Technical Standard III: Motor**

- Students must possess the capacity to perform physical examinations and diagnostic maneuvers. They must be able to respond to emergency situations in a timely manner and provide general and emergency care. They must possess adequate sensory function and motor coordination to fulfill minimum competency objectives for inspection, palpation, percussion and auscultation necessary to perform a physical examination. They must possess sufficient postural control, neuromuscular control and eye-to-hand coordination in order to utilize standard medical/surgical instruments to participate in the inpatient and outpatient setting and other clinical activities.
- Students must have sufficient gross and fine motor coordination to respond promptly and to implement skills related to the performance of sonographic imaging examinations and/or cardiovascular procedures, such as positioning and transporting patients and obtaining diagnostic images. Sonographers must be able to manipulate sonographic equipment in order to achieve diagnostic images.
- Must successfully complete and maintain CPR certification
- Students must be able to lift, transfer and/or assist patients from wheelchair/stretchers to exam table
- Students must be able to lift, move, reach, push or pull heavy equipment on wheels (up to 500 lbs.)
- Students must be able to perform and sustain repeated bending, stretching, stooping, kneeling, reaching overhead, sitting and standing
- Students must have the manual dexterity and coordination to manipulate small knobs and toggle switches and control accessory equipment.
- Students must have the manual dexterity and coordination to manipulate equipment to respond to patient safety
- Students must have the ability to maintain prolonged arm positions necessary for scanning
- Students must be able to perform their job duties while standing on their feet 80% of the time.

### **Technical Standard IV: Intellectual-Conceptual, Integrative and Quantitative Abilities**

- Students must be able to learn through a variety of modalities including, but not limited to, classroom instruction; small group, team and collaborative activities; individual study; preparation and presentation of reports; and use computer technology. Students must have the mental capacity to assimilate and learn a large amount of complex, technical and detailed information in order to formulate diagnostic and therapeutic plans.
- Students must have sufficient intellectual and emotional function to plan and implement quality patient care, analyze technical information, and use independent judgment in recognizing the need to extend the scope of the procedure according to the diagnostic findings.
- Students must be able to demonstrate the ability to integrate diagnostic sonograms, laboratory results, patient history and medical records and adapt sonographic examinations as necessary.

- Students must be able to demonstrate the ability to organize and accurately perform the individual steps in a sonographic procedure in the proper sequence.
- Students must be able to demonstrate the ability to read and extract information from the medical chart or patient requisitions.
- Students must be able to demonstrate the ability to explain the clinical study verbally and/or in writing.

#### **Technical Standard V: Behavioral and Social Attributes**

- Students must have the emotional stability to function effectively under stress and to adapt to an environment that may change rapidly, without warning, and/or in unpredictable ways. They must accept responsibility for learning, exercising good judgment, and promptly completing all responsibilities attendant to the diagnosis and care of patients. They must understand the legal and ethical standards of the medical profession.
- Students must be able to work effectively, respectfully and professionally as part of the healthcare team, and to interact with patients, their families, and health care personnel in a courteous, professional, and respectful manner.
- Students must be able to contribute to collaborative, constructive learning environments; accept constructive feedback from others; and take personal responsibility for making appropriate positive changes.

#### **Technical Standard VI: Ethical and Legal Standards**

- Students must be able to understand the basis and content of both general and medical ethics. The student must possess attributes that include compassion, empathy, altruism, integrity, responsibility, and tolerance. Students must be able to recognize limitations in their knowledge, skills and abilities and to seek appropriate assistance with their identified limitations. Students whose performance is impaired by abuse of alcohol or other substances are not suitable candidates for admission, promotion, or graduation. In addition, should the student be convicted of any felony offense while in the Health Sciences & Nursing Programs, they agree to immediately notify the program as to the nature of the conviction. Failure to disclose prior or new offenses can lead to disciplinary action that may include dismissal.

[Associated Program Costs](#) Approximate additional costs of getting started in this program and complete information about MC Tuition rates and financial aid is available at paying for college by clicking this link.

#### **Professional Licensure / Certification**

The DMS Program requires students to complete the national board certification examination(s) 30 days prior to graduation.

## Handbook Acknowledgement Page

It is the responsibility of each student to review this Handbook regularly and to understand its contents. This Handbook should not be construed as constituting a contract, express or implied, between the individual Health Science Programs and any person. The statements and provisions of this Handbook are subject to change at the discretion of the Health Sciences Department and/or individual Program without notice. The most current version of this Handbook will be located on the website for individual Programs.

My signature below indicates that I acknowledge receipt of this Handbook and understanding of the contents.

<b>Student (Print Name)</b>		<b>MC ID # M</b>
<b>Student (Signature)</b>		<b>Date:</b>