



Montgomery College
Takoma Park/Silver Spring Campus
7600 Takoma Avenue
Takoma Park, MD 20912

Diagnostic Medical Sonography Program
Coordinator: Linda Zanin, 240-567-5563
Health Science Bldg., Room- 435
[http:// www.montgomerycollege.edu/dms/](http://www.montgomerycollege.edu/dms/)

DIAGNOSTIC MEDICAL SONOGRAPHY

STUDENT HANDBOOK

Fifth Edition





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PREFACE

The primary objective of this Student Handbook is to provide Diagnostic Medical Sonography students with a ready reference manual for the DMS Program. As such, this handbook is not intended to replace the Policies and Procedures Manual, the Student Code of Conduct, the College Catalog or other Official College documents.

All students at Montgomery College are subject to the rules and regulations in the current College catalog, the Student Handbook, the Student Code of Conduct, and the College Policy and Procedure Manual. In addition to these rules and regulations, there are policies, procedures, and guidelines that are specific to DMS students.

This handbook deals specifically with the policies and procedures for the DMS Program and serves to assist DMS students toward successful completion of their course of study. Each student has the responsibility to read thoroughly and review this handbook regularly and to be knowledgeable of its contents.

The Faculty reserves the right to modify, change, or delete any or all of these policies and procedures, in whole or in part.

DESCRIPTION OF THE PROFESSION

The profession of Diagnostic Medical Sonography includes abdominal, obstetrical, gynecological, breast, neurological, cardiac, vascular, "small parts" as well as other imaging subspecialties. The profession requires proper judgment and the ability to provide appropriate health care services. Sonographers are highly skilled professionals qualified by didactic and clinical training to provide patient services using diagnostic ultrasound under the supervision of an interpreting physician. The sonographer may provide this service in a variety of clinical settings, including mobile services, where the supervising physician is ultimately responsible for the use and interpretation of each ultrasound study. Sonographers assist physicians in gathering sonographic data necessary to arrive at patient management decisions.

The Diagnostic Medical Sonographer is able to perform a multitude of tasks such as:

1. Obtain, review and integrate pertinent patient history, supporting clinical data and facilitate optimum diagnostic results
2. Perform appropriate procedures and record anatomical, pathological and/or physiological data for interpretation by a physician
3. Record, process or transmit electronically sonographic data, report, and other pertinent observations made during the procedure for presentation to the interpreting physician
4. Exercise discretion and judgment in the performance of sonographic services
5. Provide patient education related to diagnostic medical ultrasound and promote principles of good health.
6. Keep accurate record of machine's preventive maintenance information.

PROGRAM PHILOSOPHY AND GOALS

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.

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 a diagnostic medical sonographer.

Humanistic attitudes are fostered in both the didactic and clinical areas. The faculty believes that humanistic qualities are of key importance in this 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 objectives 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 polished 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 should be one 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.

DIDACTIC EDUCATIONAL OBJECTIVES

With a combination of classroom education and distance learning, students will receive instruction in such areas as the physics of diagnostic ultrasound, scanning techniques, cross-sectional anatomy, and physiology and pathophysiology of specific human body systems. Additionally, each student will accomplish demonstration, recognition, and interpretation of normal and abnormal sonographic patterns in each organ system. Knowledge gained in the classroom setting is directly related to clinical training and will need to be retained in order to draw and maximize direct parallels with the clinical experience. Refer to individual course syllabi for further, specific course objectives.

DISTANCE LEARNING

The DMS program at Montgomery College offers all its professional courses (MS courses) via WebCT platform. Our professional course of study uses online learning combined with face-to-face, hands-on scanning labs. To find out more about online education, please visit our Distance Education Department where one can find an orientation to online learning and tutorials for WebCT to better acquaint oneself with the online education format of Montgomery College.

Distance learning is not a new concept. It has been practiced for hundreds of years in different forms and has gone through many stages- correspondence study, radio, television, teleconferencing, and on the Internet. There is no universal definition of distance learning but it typically has the following characteristics:

- Separation of learner from source of instruction
- Institutionally-based (offered by a school)

- Interactive communications (usually some form of telecommunications)

Most of the distance learning courses at Montgomery College, including the DMS courses, are asynchronous, which means not delivered in real time, and they are delivered over the Web. Students sign on to a Web site where they "meet" their instructor, access the syllabus and other course materials, participate in discussions, take quizzes and tests, and collaborate with other students.

CAMPUS RESOURCES

Resource Center:

Instructional media of various types are available in the *Resource Center*. The *Library* is located on the main level of this building and the *Learning Lab* on the lower level. Audiovisual reinforcement materials are available as Diagnostic Medical Sonography courses frequently require a number of such aids to clarify, reinforce and expand understanding of course material. Computer programs as well as textbooks on ultrasound are also available here.

Math - Science Learning Center:

On a walk-in basis, a student will receive from designated student-mentors assistance with specific problems in Math and in other sciences. Upon request, educational audio and video materials will be made available for reviewing or acquiring mathematics skills. The center also provides reinforcing activities for the physical and biological sciences. Throughout the semester, such activities include topics like the utilization of science texts, adequate note-taking techniques, and the improvement of study skills.

Health Science Medical Learning Center

Located at the second-floor of the Health Center building, HS 221, this center provides an environment for students to study individually or in groups; assistance to students in using computer software applications to complete assignments, projects, and presentations; appropriate computer software, audio-visual materials, videos, anatomy models, DMS books, a digital scanner, and journals to enhance student learning; and an environment for Health Science students who need special accommodations for taking tests.

Student Development Counselor and Academic Advising:

Counseling is an integral part of Montgomery College. Student development counselors are available to assist students with academic resources and educational planning (including transfer information), career planning (including resume writing, job search, etc.), interpretation of college policies and identification referral to (necessary) campus and community resources. Once a student has been admitted into the DMS program, DMS faculty will advise the student in his or her designated curriculum (track).

Impact Tutoring:

Students may receive regular, one-on-one tutoring in their academic studies. Computer and word processing software are available to students interested in typing their assignments such as term papers, case studies or resumes.

DMS Scan Lab:

Students may avail of the open scan lab periods at HSC #426 on designated days of the week. A DMS faculty or a senior DMS student will be available by appointment to provide workable scanning technique. Students provide their own models, which have to sign a scan release form prior to a scan session.

FINANCIAL ASSISTANCE

For information and financial assistance applications, contact the Financial Assistance Office in the Student Services Building, Takoma Park Campus. Scholarships and grants are also available. Additionally, the Society of Diagnostic Medical Sonography (SDMS) and the American Institute of Ultrasound in Medicine (AIUM) offers scholarships to full-time DMS students in attendance at accredited institutions. Financial hardship combined with an outstanding academic record are two of the prerequisites for eligibility.

DMS PROGRAM ADMISSION CRITERIA

Montgomery College is committed to a policy of equal opportunity in the application of all of its policies; this includes those policies that can directly or indirectly impact students.

The DMS Program is a statewide program, and as such, if there are more applicants interested in acceptance into the DMS Program than that which can actually be admitted, the following criteria will become effective immediately:

Montgomery College Health Sciences programs requiring this application are available **ONLY** at the Takoma Park Campus. All candidates:

- Must be admitted to Montgomery College. (Submit general Admission Application if not previously admitted.)
- Must have a minimum GPA of 2.5 for the semesters in which the most recent 24 academic credits have been earned.
- Must meet assessment levels and prerequisites for the program.

Assessment Levels and Prerequisite Courses: **DMS**

English	* EN 101 assessment level or prior completion of EN 101/101A/102 or 109
Math	Academic Readiness for MA 110; assessment level or prior completion of MA 100 or higher.
Biology	
Other	PH 010

Priority Consideration for Admission

Applicants who meet all admission requirements may improve your chances of admission by completion of “core courses” as shown below. After all final grades are received* applications will be ranked according to completion of “core courses.” Applicants who have successfully completed all core courses for the program of choice will be placed in Group I (top priority), those missing one core course will be in Group II, those missing two core courses will be in Group III, etc.

*Grade deadlines – The admissions office will only consider spring semester grades received by June 1 for fall admission. Please note: beginning with the fall 2008 class, health science admissions for the Fall will be based on courses completed and grades earned through the prior fall semester only.

Core Courses – **DMS**

English	EN 101
Biology	BI 204, BI 205
Math	MF* *Prior completion of MA 110 or higher
Other	PH 010

GPA Rank

Within each Group applicants will be ranked by GPA. The admissions GPA calculation will be based on grades earned in the semesters in which the most recent 24 college level credits were attempted. If an applicant has attempted fewer than 24 college level credits secondary school records will be included in this calculation. Official transcripts are required in all cases.

FEES AND EXPENSES

Tuition charges are based on residence status as of the first day of classes for each semester. Please refer to the latest Montgomery College Catalog or Class Schedule for current tuition information. Fees related to registration, tuition and other charges are **payable in full immediately upon completion of registration**, unless prior arrangements have been made with the Financial Aid Office. Additional information regarding financial obligations, payment plans and policies can be found in the college catalog and schedule of classes.

ADVISING AND COUNSELING

Once enrolled in the DMS Program, DMS faculty will advise all students. It is suggested that students acquaint themselves with their advisor(s) and seek guidance on all academic matters. The DMS faculty will continue to provide advising for the duration of each student's training. Faculty office hours are posted on their office doors; otherwise appointments can be made for advising (etc.) purposes.

Prior to registration for each semester, all students must arrange an appointment with their advisor. Grades and academic progress will be reviewed and plans will be made for DMS courses to be taken the following semester (where applicable). Prerequisites will be reviewed. The advising goal of DMS faculty is to facilitate student success in their DMS courses (curriculum). Any student demonstrating difficulty in meeting the guidelines and objectives of any particular DMS course should meet with the appropriate authority for that course (course instructor, clinical instructor, clinical coordinator, program coordinator).

Montgomery College offers qualified staff to provide students with counseling. This staff provides services such as academic counseling, testing, advising, financial and personal counseling. Minimal counseling needs may otherwise be met through discussions, suggestions and recommendations to the appropriate (Montgomery College) resources by DMS faculty. Documentation of any counseling sessions will be left at the discretion of the DMS Program faculty. (Students are strongly encouraged to use campus resources to meet their needs and to consult frequently with both clinical and classroom faculties regarding any deficiencies so as to minimize any future complications.)

PROCEDURE FOR STUDENT COUNSELING

DMS students will receive regular counseling with Faculty, Clinical Coordinator, and/or the Program Director to assess their academic progress as well as to review his or her grades.

If deemed necessary, the students will be counseled at mid-term and at the end of each semester. At that time student's status with regard to academic standings, clinical performance, professional demeanor, and attendance will be discussed and documented. Anytime the student's clinical performance at the clinical site becomes subject to question, the student may be recalled for a counseling session in school. Depending on the outcome of the session, the student may or may not return to the clinical practice.

Students will always have the ability to review their clinical evaluations for the current month. By appointment, the Program Director and Clinical Coordinator are always available to students. Said consultations may be on a formal or informal basis.