# Table of Contents

**Introduction** 5  
Howard Community College Leadership 6  
Meet the DMS Program Instruction Team 6  

**I. Program Information - DMS**  
- Mission Statement 7  
- Program Description 7  
- Program Accreditation 7  
- Program Goals 7  
- SCANS Competencies 8  
- Application / Admission 10  
- Admissions Procedures and Criteria 10  
- Advanced Placement 10  
- Transfer of Course Credit from Other Institutions 11  
- Orientation 11  
- Curricula/Course Descriptions 11  
- Costs Estimate 12  
- Textbooks, Supplies, and Uniforms 12  
- Computer Access/E-mail/Skills 12  
- Announcements 13  
- Course and Exam Schedules 13  
- Course Grading Scales 13  
- Graduation Requirements 14  
- Student Records 14  
- Classrooms and Labs 14  
- Program concentration and selection 14  
- Didactic Education 15  
- DMSU-216 ARDMS Registry Seminar 15  
- Clinical Education 15  
- Clinical Rotations 16  
- Sonography Lab Sessions 17  
- Clinical Education Levels AAS Degree Plans 17  

**II. General Policies and Procedures**  
- Policies and Procedures 21  
  - Academic Dishonesty 21  
  - Program Progression 26  
  - Student Complaint Procedure 21  
  - Sexual and/or Racial Harassment Complaints 21  
  - Grade Change Policies and Procedures 21  
  - Family Education Rights and Privacy Act (FERPA) 22  
  - Clinical/Practicum Policies 22  
  - Professional Behavior 22  
  - DMS Program Dress Code 22  
  - Professional Ethics and Confidentiality 22  
  - Safe/Unsafe Clinical/Practicum Practices 22  
  - Progressive Discipline 23  
  - Health and Safety Information 24  
  - Professional Risks 25  
  - TB Testing and CPR 25
III. Program Policies and Procedures - DMS

Technical Standards and Essential Functions 27
DMS Program Technical Standards and Essential Functions 27
Professional Behavior 29
Sonography Programs Conduct Standards 29
Sonography Chain of Command 30
Electronic Devices 30
Sonography Program Progression/Retention/Readmission 30
Sonography Student Retention 31
Progress Analysis Form 31
Affective Domain Performance Notification 31
Re-Admission Policy 32
Re-Verification of Competency 32
Not Eligible for Re-entry 33
Program Attendance 33
Student Work and Educational Schedule 33
Clinical Attendance 33
Call-In Procedure for Clinical Absence 34
Reporting of Serious Illness/Injury or Communicable Disease 34
Sonography Clinical Rules 35
Required Clinical Attire 36
Clinical Reporting Requirements 37
Case Logs 38
Required Scanning Experiences 38
Clinical Evaluations 39
Clinical Evaluation Tools 39
On-Campus Clinical Labs 39
Open Scan Lab Sessions 39
Sonography Student Peer Scanning 40
On-Campus Clinical Lab Volunteer Scheduling 40
Off-Campus Clinical Volunteer Scanning 41
Donated Case Study 41
Sonography Student Pregnancy Policy 41
Student Working as Staff 42
Student Visiting the Clinical Site (non-assigned) 42
Student Use of Ultrasound Equipment (non-assigned) 42

IV. Student Resources

Important Phone Numbers 42
Sonography Profession Resources 43
Sonographer Credentialing 43
Program Development and Content Resources 44
Appendix

Appendix 52
Appendix 1A
Introduction

The Howard Community College (HCC) Diagnostic Medical Sonography (DMS) Student Handbook has been compiled by the faculty to provide information pertinent to students enrolled in all concentrations of the DMS Program offered at HCC. The faculty and staff wish you success in the pursuit of your educational goals.

The DMS Student Handbook provides detailed procedures and policies specific to all concentrations of the DMS Program offered by HCC. This handbook is used as a supplement to the 2017-2018 HCC Catalog and the HCC Student Handbook, and serves to bridge the overriding policies of the College with the policies specific to this program. The information, policies and procedures set forth in this handbook are designed to support the success of the student and are provided to the student during the DMS Program Orientation session.

A copy of the 2017-2018 HCC Catalog or HCC Student Handbook is available on campus or may be downloaded from the HCC website at: www.howardcc.edu. Continuing DMS Program students will receive an updated or revised copy of the DMS Student Handbook at the start of the Academic year (Fall semester).

The DMS Program is just one of the programs within the Health Sciences Division. The Health Sciences Division is comprised of the following programs: Cardiovascular Technology, Dental Hygiene, Diagnostic Medical Sonography, Emergency Medical Services, Exercise Science, Health Care for the Professional, Human Services, Medical Laboratory Technician, Nursing, Physical Therapist Assistant, Radiologic Technology, Aging Services Management, Athletic Training, Exercise Science, Health Care Management, Health Education, Human Services, Nutrition, and Public Health. The Health Sciences Division is committed to providing quality educational programs for the purpose of developing successful health care professionals. Developing caring, competent health care professionals prepared for diverse contemporary practice requires interactions with patients and patient services, thereby resulting in an educational environment with unique characteristics and requirements.

The Health Sciences programs prohibit discrimination. Access to its programs or activities shall not be limited on the basis of race, color, religion, national origin, age, gender, sexual orientation, political affiliation, or disability.
HOWARD COMMUNITY COLLEGE LEADERSHIP

Vice President of Academic Affairs  Dr. Jean Svacina
Health Sciences Division Chair  Dr. Georgene Butler
Allied Health Clinical Coordinator  Margaret Tricoli

MEET THE DMS PROGRAM INSTRUCTION TEAM

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Dr. James Hwang has been in the field of medical sonography for fifteen years, including ten years as the Department Chair of sonography education programs. As a former radiologist, he put his focus on providing his students with integrative and interdisciplinary view on diagnostic medical imaging as well as offering comprehensive understanding of sonography.

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Chante Robertson has been active in the field of cardiovascular sonography for eleven years. She is bringing a wide range of direct patient care experience as well her knowledge of clinical procedures to the program. She also enjoys teaching the fundamentals of sonography in the classroom setting and helping students gain confidence in their scanning abilities in the lab setting.

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Beth Hendler-Friedman has served as Technical Director for Johns Hopkins University’s Vascular Medicine laboratory where she trained students, fellows and visiting physicians from around the world. She has worked to gain accreditation for multiple vascular laboratories in and around the Baltimore Washington area. Beth earned a bachelor’s degree in Nutrition and Institutional Administration from the University of Maryland, College Park.
I. Program Information - DMS

Mission Statement
In keeping with the mission and the vision of HCC, the DMS program is committed to providing students with a well-rounded education in the General (Abdominal and Ob/Gyn), Cardiac, and/or Vascular concentration of sonography. The DMS program includes instruction in sonographic practices and principles and basic to advanced medical imaging skills intended to prepare the student for employment in the field of diagnostic medical ultrasound. The DMS Program faculty is committed to assisting the student toward achieving their greatest academic, personal, and professional potential through quality instruction and rigorous coursework.

Program Description
The DMS Program is offered as an associate of applied science degree. The length of the AAS degree plan is 4 major semesters. The DMS Program is designed to prepare entry-level sonographers for employment in imaging departments, radiology, cardiology and/or vascular offices and specialty practices. The program utilizes nationally published course manuals, standards, and outcomes in the development of sonography courses in the curricula. These reference materials are listed in the Appendix of this document.

Program Accreditation
The DMS program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) with the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS).

Accreditation is achieved when a program is designed and conforms to the Standards and Guidelines of an Accredited Program in Diagnostic Medical Sonography. The Joint Review Committee on Education has established the Program Standards in Diagnostic Medical Sonography. Students are encouraged to review this document, which is available upon request from the DMS Department Chair or at www.caahep.org.

Students who successfully complete the Ultrasound Physics and Instrumentation I (DMSU-211) and II (DMSU-212) courses of the DMS Program will apply for the ARDMS Sonography Principles and Instrumentation (SPI) certification examination during the last Winter semester of the program. Students then may be eligible to apply to take the ARDMS certification exam in their applicable specialty area upon completion of their AAS Degree Plan DMS program. Successful completion of the ARDMS exams is required to earn a Registered Diagnostic Medical Sonographer (RDMS), a Registered Diagnostic Cardiac Sonographer (RDCS), or a Registered Vascular Technologist (RVT) credential.

Program Goals
The following goals of the HCC DMS Program respond to the expectations of the communities of interest served by the Program: students, graduates, faculty, employers (institutions and physicians), patients, HCC, and the profession of Sonography. Achievement of these goals is assessed through annual Program outcome data (graduate and employer surveys, ARDMS exam pass rates, and employment rates) which is reviewed relative to the MHEC Guidelines for Programs in Workforce Investment Act (WIA), the HCC Curriculum and Instruction Committee, and the JRC-DMS Annual Report. The DMS Program faculty and Advisory Committee review outcome reports annually and make recommendations for changes to the curricula if outcomes do not meet benchmark levels. On-going assessment of course content and structure is performed by the DMS Program faculty through the use of end-of-course evaluations.
The goals of the HCC DMS Program are to:

1. Prepare competent entry-level general and cardiac sonographers, and vascular technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

2. Produce skilled medical sonographers who actively apply acceptable principles and techniques within the fields of General, Cardiac, and Vascular sonography throughout their careers.

3. Produce graduates eligible to apply, take and pass the ARDMS, the ARRT, and/or the CCI specialty certification exams upon completion of the Program.

4. Maintain high academic and professional standards in students and graduates.

5. Maintain standards for program accreditation from the JRC-DMS.

6. Provide for student retention during the program using a variety of methods and resources.

7. Serve as a resource for the clinical agencies in the Howard county area.

SCANS Competencies
In 1991, the Secretary of the U.S. Department of Labor established the Secretary’s Commission on Achieving Necessary Skills (SCANS). The Commission found that, “Current and future employees will have to read well enough to understand and interpret diagrams, directories, correspondence, manuals, records, charts, graphs, tables, and specifications.” Integration of the SCANS competencies in both academic and vocational/technical classes will help to prepare students to function more effectively in high school, in college, and in the high-level technological workplace. The know-how identified by SCANS is made up of five competencies and a three-part foundation of skills and personal qualities that are needed for solid academic or job performance. SCANS competencies and examples applicable to the Sonography Programs are shown in the following table:

SCANS Competencies Examples

<table>
<thead>
<tr>
<th>SCANS</th>
<th>Competencies</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Resources</td>
<td>1.1 Manages Time</td>
<td>• Completes all assignments within specified time frame; maintains appropriate attendance in all courses.</td>
</tr>
<tr>
<td></td>
<td>1.4 Manages Material and Facility Resources</td>
<td>• Uses appropriate amounts of supplies in performing sonographic studies.</td>
</tr>
<tr>
<td>2.0 Interpersonal</td>
<td>2.1 Participates as a Member of a Team</td>
<td>• Participates with the on-site clinical instructor and other members of the health care team to provide optimum patient care.</td>
</tr>
<tr>
<td></td>
<td>2.2 Teaches Others</td>
<td>• Provides pre- and post-procedure instructions to patient, explains procedure process to patient, participates in peer-teaching</td>
</tr>
<tr>
<td></td>
<td>2.3 Serves Clients/Customers</td>
<td>• The sonography student communicates appropriately and effectively at all times with patients, families, staff, sonographers and physicians in the clinical setting.</td>
</tr>
<tr>
<td></td>
<td>2.6 Works with Cultural Diversity</td>
<td></td>
</tr>
<tr>
<td>3.0 Information</td>
<td>3.1 Acquires and Evaluates Information</td>
<td>• Correlates patient history, laboratory data, related studies and surgical procedures to the performance of the ultrasound exam; recognizes</td>
</tr>
<tr>
<td></td>
<td>3.2 Organizes and Maintains Information</td>
<td></td>
</tr>
</tbody>
</table>
| 4.0 Systems | 4.1 Understands Systems | 4.2 Monitors and Corrects performance | • Applies technical settings using ultrasound machine controls to produce diagnostic quality images.  
• Self-critiques images and views; adjusts imaging parameters as needed to produce diagnostic quality exams. |
| 5.0 Technology | 5.1 Selects Technology | 5.2 Applies Technology to Talk | • Selects appropriate transducer and software settings for required sonographic exam.  
• Uses appropriate technical and medical terms.  
• Assesses ultrasound unit performance and compensates for technical difficulties during procedure. |
| 6.0 Basic Skills | 6.1 Reading | 6.2 Writing | • Completes writing assignments and internet searches of assigned topics.  
• Able to perform calculations required in ultrasound physics and specialty courses.  
• Able to interview patient to obtain information and history as related to the sonographic examination.  
• Able to provide verbal reports on sonographic findings using clear and concise English language. |
| 7.0 Thinking Skills | 7.2 Decision Making | 7.3 Problem Solving | • Correlates patient information and patient condition with the requirements for the diagnostic ultrasound exam; adjusts scanning techniques as needed.  
• Correctly identifies pathological conditions demonstrated on sonographic images and adapts exam as needed.  
• Creates a study plan and seeks assistance with educational goals as needed.  
• Decide which formulas to apply given various parameters. |
| 8 Personal Qualities | 8.1 Responsibility | 8.2 Self-esteem | • Manage personal time and activities as not to interfere with lecture or lab class sessions, assignments or activities.  
• Identifies and acknowledges scanning strengths and weaknesses.  
• Displays enthusiasm for profession; displays a pleasant demeanor in all settings.  
• Maintains confidentiality of personal and clinical information. |
Application and Admission
Health Sciences admission requirements vary according to program and may include specific testing, prerequisites, immunizations, criminal background checks, and screening (including, but not limited to substance abuse screening). Students seeking information for any Health Sciences program should contact the Health Sciences Division Office.

Interested individuals can obtain a DMS program brochure describing the program in general by contacting the Health Sciences division office, searching the HCC website, and/or by visiting the Office of Admissions and Advising at HCC. Program specific information is found on the DMS Program website (http://www.howardcc.edu/academics/academic_divisions/health_sciences/instructional/diagnostic_medical_sonography_NEW/index.html) and is provided during the DMS program Information sessions (online or on-campus). Application for admission to HCC is a separate process which must be completed prior to applying to the DMS Program. Please see the HCC website (www.howardcc.edu) for the HCC Admission Process.

The number of students accepted into the DMS program each year is determined by the number of appropriate clinical sites (sites that meet CAAHEP programmatic accreditation Standards) available for clinical placements throughout the length of the program. The number of students accepted may vary from year to year.

Admission procedures and criteria:
1. Students who are eligible must submit a letter of interest for the DMS program, along with all necessary supporting documents, by January 15th of each year.
2. Grades earned in prior college courses will be reviewed by the DMS Department Chair.
3. Students who meet the minimum admission requirements of the DMS program will be pooled into two groups; the in-county candidates group and the out-of-county candidates group. Then, an offer of acceptance will be made first to in-county candidates, followed by out-of-county candidates until all available clinical sites are assigned with candidates.
4. The number of students admitted is directly related to the number of appropriate clinical sites willing and able to accept student placements, therefore enrollment numbers may vary from year to year. The class is selected by July 1 of each year.

Advanced Placement / Course Challenge Exam Policy
1. A qualified applicant/student (as outlined in #4 below) may request to take an advanced placement exam to receive credit for a didactic course(s). Clinical courses may not be challenged for credit.
2. Any prerequisites for a course that the applicant/student is requesting to challenge for credit must be successfully completed prior to the applicant/student requesting the course challenge.
3. The student must file a written request for a challenge examination. Forms may be obtained from the DMS Department Chair and must be filed at least two weeks prior to the test date.
4. To qualify to take the advanced placement exam for a didactic course, the applicant/student must produce acceptable documentation (transcript, military documents, and/or original letter
from previous Department Chair and/or instructor) of formal Sonography training to include one or more of the following:

a. military service training  
b. completion of or credit hours in Sonography courses obtained at a regionally accredited college or university OR from a CAAHEP accredited Sonography program;  
c. foreign Sonography training programs recognized by HCC through its formal transcript evaluation process;  
d. other class work, as evaluated by the DMS Program faculty prior to determination of eligibility;  
e. documentation of previous training in a hospital-based Sonography program accredited by CAAHEP.

5. To successfully complete the challenge, the student must pass an exam covering fundamental concepts and demonstrate all competencies required by the course. A minimum grade of 85% (“B”) must be achieved in order for credit to be awarded.

Transfer of Course Credit from Other Institutions

Previous course work satisfactorily completed at another regionally accredited institution of higher education can be evaluated for transfer and may be applied toward completion of the DMS Program at HCC. Transfer courses must be accepted by HCC, must be comparable to course content of HCC courses, and must be reviewed by the DMS Department Chair.

Applicants/students may receive credit for DMS coursework (see above) or a challenge exam may be required. The student currently enrolled in another sonography program must submit a letter of withdrawal in good standing from the previous Department Chair along with all other documents required in the Application Process.

Orientation

Approximately one month prior to the start of the first semester, newly admitted DMS program students are required to attend the DMS program New Student Orientation. The Orientation includes, but is not limited to, a review of the HCC Student Handbook, the DMS Program Student Handbook, registration information, orientation to first semester courses, and the completion of a New Student Information and Self-Assessment Form and other pertinent assessments.

The DMS Program Supplemental Application Form and transcripts will be reviewed and discussed with the new student during a Post-Admission Advising session. This session will be scheduled during the first semester. The purpose of this session is to proactively identify issues that may affect student success, to provide advice, guidance and resource information, and to ensure that the student completes all required General Education courses of the degree plan in a timely fashion.

Curricula/Course Descriptions

Please see the current HCC Catalog at www.howardcc.edu. The HCC Catalog is also available for free from many stands on campus. Any proposed changes to the DMS curriculum and/or course descriptions will be posted on the DMS Program website (http://www.howardcc.edu/academics/academic_divisions/health_sciences/instructional/diagnostic_medical_sonography_NEW/index.html) at least 6 months prior to publication of the changes in the HCC Catalog.
Costs Estimate (Tuition and Fees)
For information regarding the College tuition and fees for DMS Program courses, please refer to a current HCC Course Schedule (in print or online at www.howardcc.edu) or call (443) 518-1240 for assistance. Many DMS Program core courses (clinical and didactic/lab) carry additional fees for Liability Insurance and Lab Fees. These fees are subject to change by the College at any time.

Some clinical affiliates require students to submit for Pre-Placement Drug Testing at the student’s expense. In addition, as part of their clinical experience students may be required to subscribe to an online clinical tracking system at their own expense.

Textbooks, Supplies and Uniforms
Textbook, supplies and/or additional requirements are listed in each course syllabus. Textbooks for DMS Program core courses are available in the Bookstore approximately. It is recommended that students retain possession of anatomy, physiology, pathophysiology, and medical terminology textbooks used in previous courses. Students should also have English language and medical dictionaries for reference.

Required Clinical Attire - Students are required to purchase the appropriate clinical and lab attire as specified in Section IV. The DMS program does not bulk order uniforms or other clinical attire for student purchase; information on purchasing the required uniforms is provided to the student prior to the start of the first clinical semester.

Computer Access / Email / Skills
All students must be able to access the HCC online teaching platform, Canvas, as all DMS Program core courses utilize Canvas for instruction and dissemination of information.

Students may utilize any of the computers on HCC campus to check their HCC email accounts and to access Canvas. Canvas and email accounts should be checked frequently for assignments, announcements and/or messages. Students are responsible for obtaining instruction in the use of Canvas; see course instructor and/or Health Sciences Lab Manager for assistance.

HCC students are assigned an HCC email address. All email communication between the DMS Program and the student will be conducted using HCC assigned student and faculty email addresses.

DMS Program students are required to demonstrate a variety of computer skills throughout the length of the program. Students will access the Internet and perform Web searches, submit all writing assignments as Word documents, and utilize the College on-line teaching platform, Canvas. Students may be required to develop charts and tables, Power Point presentations, etc. for specific courses (refer to course syllabus for assignments). Clinical courses may require use of an online tracking system. In addition, clinical sites utilize computer systems for patient schedules and patient information. All DMS Program students must be able to utilize any clinical site’s data/patient management system as allowed by the clinical site.

A student who is unfamiliar with using a computer or who has limited computer skills should obtain instruction in computer programs and usage so that he/she will be able to meet the requirements of his/her courses.
Announcements
Program announcements and information will be delivered via HCC email message to the student. HCC announcements and information are posted on the main HCC webpage and in cases of Emergency, will be delivered via the HCC Mobile Alert System. DMS Program students should check their HCC email frequently to stay current on any announcements and/or pertinent information.

Course and Exam Schedules
DMS Program didactic and lab courses are taught primarily at the DMS Skills Lab in the Health Sciences (HS) Building; though some lab sessions may be assigned to other Skills Lab as necessary. Each semester, specific course times and room assignments are announced in the HCC Schedule of Credit Classes. The course instructor may assign alternate and/or additional laboratory sessions (to be held within the DMS Skills Lab), if needed.

Assessment (quiz/exam) dates are set by the course instructor and are listed on the Course Calendar as part of the Course Syllabus; instructors may use unannounced graded/ungraded quizzes as an instructional method. Within any given course all course activities are scheduled at the discretion of the instructor for that course. Any revisions to the Course Calendar that occur during the semester will be provided to the student via email and will be posted on the Canvas site for that course; a revision date will be included so that the most current Course Calendar is utilized.

Final Exam dates and times are developed by the DMS Department Chair in conjunction with each individual course instructor. Final Exam dates and times are included in the course syllabus and are non-negotiable. In the event of serious illness, injury or emergency that directly affects the student, the student must contact the course instructor prior to the start of the exam. If the Final Exam is missed for any reason, the instructor may authorize the student to apply for a set of options for completing the course. This may be done on a case-by-case basis and the DMS Department Chair must approve any arrangement developed and offered to the student for completion of the course requirements.

Course Grading Scales

Didactic Grading Scale
100% - 93% = A
92% - 85% = B
84% - 75% = C
74% - 68% = D*
67 - 0% = F

Clinical Grading Scale
100% - 93% = A
92% - 85% = B
84% - 0% = F*

*A course grade of “C” or greater in all DMS program didactic courses is required for progression in the program. A course grade of “B” or greater in all DMS program clinical courses is required for progression in the program. Those who do not meet this requirement will result in
withdrawal from the DMS program and will need to be re-admitted to the program on the following academic year.

Graduation Requirements
Graduation from the DMS Program requires successful completion of all prerequisite courses (by transfer credit, course challenge or course completion) and ALL DMS Program Core courses. The Application for Graduation must be submitted to the Office of Records, Registration, and Veteran’s Affairs at HCC by the deadline specified in the HCC Catalog for the applicable semester.

Student Records
The DMS program maintains records for current and graduated students in the Health Sciences Division office in accordance with college policy. The DMS Department Chair’s office maintains current and newly admitted student admission files. The DMS Program Clinical Coordinator’s office maintains all current student clinical files as a central point of storage for each clinical course. DMS program instructors maintain coursework and grade files for the students enrolled in the courses taught by that instructor. These documents are secured and may be reviewed by making arrangements with the Department Chair and/or individual instructor. Student course grades are maintained by the Office of Records, Registration, and Veteran’s Affairs at HCC and are available by requesting an official transcript or through Student Online Access. The DMS program follows HCC Administrative Policies & Procedures 50.03.03 Records and Registration and 61.06 Record Retention for long-term storage of student records.

Many DMS Program core courses utilize Canvas for posting grades so that the student is always aware of their grade standing in the course. A student may view his/her grades at any time by appointment with the course instructor. A Student Progress Analysis (appraisal of grade standing) may be completed by an instructor at mid-semester or at any time deemed necessary by the course instructor.

Classrooms and Labs
DMS Program lecture and lab courses are taught primarily at the DMS Skills Lab (HS 263) in the Health Sciences (HS) Building. Classrooms are assigned by the HCC system for classroom management. All HS classrooms and labs are equipped for multimedia presentations.

Students have access to the DMS Skills Lab throughout the length of the Program during assigned times, between on-campus classes, and during Open Lab sessions (if utilized) each semester. A DMS Program faculty must be present to provide supervision whenever students use the lab during non-assigned times.

Program concentration and selection
DMS program at HCC offers three areas of concentration: General, Vascular, and Cardiac. Each concentration will prepare students for the entry-level sonographer of each specialty area. Students will be admitted to the DMS program without selecting the program concentration. During the first semester of the program, students will be introduced to all three concentrations of sonography and, at the end of the semester, will be given a chance to select his/her choice of concentration.

This selection process will be competitive. Limited number of slots for each concentration based on the availability of clinical rotations will be announced before the selection process. Students
will be given a chance to select their concentrations based on their grades from their first semester of the program. The student with the highest grade from the first semester will get the first chance to select a concentration. The student with the second highest grade will follow, and so on. Depending on the availability of sites and other students’ choices, some students may not have their first preference among their choices.

**Didactic Education**

The didactic education portions of the AAS DMS program consist of theory and principle courses, *The Ultrasound Physics and Instrumentation (physics) courses are central and common to all three concentrations. In addition, there are specific courses that provide specialized education in all three concentration areas. All DMS Program core courses are sequential and specific to the semesters listed in the Program curriculum.*

The JRC-DMS mandated objectives for the Sonography didactic courses are included in the syllabus for each individual course; the HCC DMS courses may include additional objectives for each course. All DMS Program students are introduced to the vascular system within the AAS degree plans, regardless of their choice of concentration; the vascular system is addressed in-depth to the students who choose the vascular concentration. A detailed study of ultrasound physics and instrumentation, including Doppler principles and instrumentation and hemodynamics, is an integral part of the DMS Program.

The DMS Program utilizes the HCC on-line teaching platform, Canvas, to provide significant course materials and support for all DMS Program classroom-based and clinical courses. All didactic courses use a variety of instructional methods including all or some of the following: on-line research and/or presentations, homework assignments, and quizzes (announced and un-announced), case presentations, scenarios, lab assignments, exams, and writing assignments to assess the student’s knowledge and problem-solving skills. The student is responsible for meeting all course requirements stated in the course syllabus by the deadlines listed in the syllabus or on the Canvas site for the course.

**DMSU-261 ARDMS Registry Seminar**

DMSU-261 ARDMS Registry Seminar is required for graduation from the DMS Program; therefore, all DMS students must register for this course. Upon completion of DMSU-211 Ultrasound Physics and Instrumentation I and DMSU-212 Ultrasound Physics and Instrumentation II, students may be able to apply to take the ARDMS SPI exam.

**Clinical Education**

Clinical education is a crucial component of the program representing the majority of the contact hours within the HCC Sonography Programs. There are five competency based clinical courses and each course has designated competencies that are aligned with standards of practice for sonography.

All ultrasound exams require the sonographer to use the same critical thinking, scanning and technical skills while following exam protocols that state the minimum images, views, measurements and blood flow assessments required for each organ, structure, vessel or area of the body. During the performance of the sonographic exam, the sonographer must constantly assess and adjust the technical parameters AND assess the region of interest to determine normalcy or presence of pathology in the organs, structure, and blood vessels. The sonographer makes the decision which images/views to acquire, assess, and record; the sonographer is expected to go beyond the minimum protocol to provide a diagnostic ultrasound
Proficiency and competency in performing sonographic examinations is a continuous and cumulative process based in the consistent demonstration of accurate scanning skills.

All sonographers must demonstrate appropriate professional behavior and patient care skills. The sonographer may spend a significant amount of time with patients and may be the sole care giver in the room while the sonographic exam is performed. Sonographers must be able to deal with a variety of patient conditions and physical settings where the sonogram is performed. Sonographers must be able to communicate effectively with the patient, family members, physicians, and other medical personnel. Sonographers must be HIPAA compliant at all times and in all settings.

The DMS Program clinical courses are sequenced in order of psychomotor skills: from basic scanning techniques and patient interactions, to performance of partial exams with appropriate accuracy, to performance of complete exams with accuracy and in a specified time frame. Final competencies are required to ensure that the DMS Program student is prepared to enter the workplace and to take and pass his/her ARDMS exams.

Clinical evaluations are performed in both the DMS Program Skills Lab and clinical site settings.

Clinical Rotations
Students are assigned by the program to clinical rotations at health care facilities that are affiliated with HCC. A student may be assigned to any appropriate clinical facility utilized by the DMS Program. DMS Program students are not assigned to clinical rotations in departments where they are employed in a patient care capacity and are prohibited from making their own clinical placement arrangements. Students will not be re-assigned to a clinical site that was previously attended.

Clinical rotations give the DMS student exposure to various types of learning environments, different volumes/variety of examinations, and opportunities to perform ultrasound examinations on patients in the clinical setting. Facilities range from private offices to acute care imaging departments. The student is responsible for transportation to and from the clinical site and any parking expenses related to the clinical assignment.

Every effort is made to secure clinical placements in which the student will have ample access to scanning opportunities; however, the HCC DMS program cannot control the type or volume of cases performed during the hours a student is scheduled to attend a clinical site. Heavy case loads and/or schedules containing advanced procedures may, at times, preclude a student from participating in scanning patients. The on-site clinical instructor determines the extent of participation based on the student’s technical skill level and/or other mitigating factors.

The Clinical Rotation Assignment forms are provided to the student prior to the start of the semester. The student will receive information on the assigned clinical site; name of site, name(s) of clinical instructor(s), directions to site (if applicable), parking information and how to obtain a parking pass if required by the site (some sites require employees and students to park off-site), obtaining a site-specific name badge if required, and any other pertinent information or requirements of the site.

- Clinical agencies (sites) can establish more stringent standards to meet regulatory requirement for their facility at their discretion.
- Clinical agencies can conduct additional background checks at their discretion.
• Some clinical affiliates may require a preliminary drug screening prior to actual clinical practice in their facility.
• Clinical agencies can require students to attend mandatory orientation programs prior to the start of the clinical semesters.

The student is required to complete the Orientation to the Clinical Site packet within the time frame specified on the forms. Copies of all forms completed by the student to meet the requirements of the clinical site must be provided to the student's Program for inclusion in the student's clinical file.

It is the student’s responsibility to complete all site-specific requirements and place an introductory phone call to the clinical instructor prior to the first day of the clinical rotation. Students must return their clinical schedule to the Clinical Coordinator prior to the start of the rotation. The Clinical Coordinator will provide students with a schedule of expected site visits to take place during each clinical rotation. Student attendance at the clinical site is mandatory and a requirement for progression in the Program. Student absences should be arranged well in advance and require the student to notify the site Clinical Instructor as well as the DMS Clinical Coordinator. Students must be present on site visit days.

If a student is asked to be removed from a clinical site by the site staff for any reason, the Program will not provide the student with another clinical site. The student will be withdrawn from the program automatically.

**Sonography Lab Sessions**
Scheduled DMS program lab sessions which are part of didactic or clinical courses are designed to provide instruction in the technical and psychomotor skills involved in learning basic and advanced scanning skills, production of sonographic exams, and the analysis and critique of sonographic images and/or exams. Lab sessions may involve case analysis, image critique, video reviews, computer tutorials, hands-on scanning instruction and practice, instruction and practice using the ultrasound training simulator, and other activities as deemed pertinent to the student’s learning.

Open lab sessions may be scheduled; an Open Lab is a designated time for students to practice the techniques and skills taught during the regular Lab Session. Students have access to the DMS program Skills Lab throughout the length of the Program during assigned times, between on-campus classes, and during Open Lab sessions (if utilized) each semester. A DMS Program faculty must be present to provide supervision whenever students use the lab. Due to campus operating schedules, the DMS Program Skills Lab may not be available on certain days and/or at certain times.

**Clinical Education Levels AAS Degree Plans**
The Clinical Education Levels provide a format for progressive, competency-based clinical education in which the student attains acceptable clinical skills and behaviors.

**Level I: Spring Semester 1**
**Didactic and Clinical (Lab) Instruction**
The Sonography didactic courses at this level focus on specific normal anatomy and physiology, sonographic anatomy and imaging, critical thinking skills, and medical ultrasound physics principles.
The Sonography clinical courses at this level address basic scanning techniques/methods, scanning ergonomics, patient care skills, clinical procedures and practices, critical thinking skills, and student clinical behaviors and performance expectations. Students practice scanning techniques utilizing the ultrasound training simulator, peer scanning, and/or volunteers under instructor supervision. Lab/Clinical Benchmark, Proficiency, and Challenge evaluations are performed at frequent and regular intervals (stated on the Semester Assignment List). Students should utilize the assigned The Proficiency Objectives, Benchmarks and Challenge evaluations for this level to guide his/her practice scanning experiences.

Criteria for successful completion of the requirements are stated in the DMSU-151 syllabus.

**Level II: Summer Semester 1**

**Didactic Instruction**

The didactic courses at this Level address pathophysiology, specific abnormal sonographic appearances, critical thinking skills, scanning techniques and procedures including adaptive scanning techniques, and medical ultrasound physics and instrumentation.

**Direct Supervision Clinical Performance**

The student is assigned 16 clinical hours per week at a clinical site affiliated with the Program and/or the HCC lab. The student is allowed to begin scanning patients at the discretion of the on-site Clinical Instructor/sonographer and with the CI/sonographer in the room.

- Per the HCC Affiliation Agreement with all clinical sites, the student is strictly prohibited from performing sonograms without the sonographer in the room or immediately nearby and from submitting acquired images/clips for interpretation and inclusion in the patient record. The supervising sonographer must observe the student scanning and must submit appropriate images/clips for interpretation.

The student should utilize the assigned Proficiency Performance Objectives, Lab/Clinical Benchmarks and Challenge evaluations for this level to guide his/her scanning experiences and should ensure that the on-site clinical instructor/sonographer is aware of his/her clinical course requirements.

The student’s rate of progress and ability to gain additional scanning time in the clinical setting is directly dependent upon the student’s ability to perform the scanning tasks assigned by the Program and/or Clinical Instructor/sonographer.

The student is required to complete Proficiency Performance Objectives and Clinical Challenges as assigned on the Semester Assignment List for DMSU-252. Evaluations for this level may be conducted in both the Sonography Lab and clinical settings. Sonography faculty will discuss the student’s progress with the on-site Clinical Instructor(s) and will provide feedback to the student throughout the semester.

**Level III: Fall Semester 1**

**Didactic Instruction**

The didactic courses at this Level continue to address specific pathophysiology, specific abnormal sonographic appearances, critical thinking skills, scanning techniques and procedures including adaptive scanning techniques, Doppler physics and instrumentation, and hemodynamics.
Direct/Limited Supervision Clinical Performance
The student is assigned 16 clinical hours per week at a clinical site affiliated with the Program and/or the HCC lab. The student is allowed to begin scanning patients at the discretion of the on-site Clinical Instructor/sonographer and with the CI/sonographer in the room.

- Per the HCC Affiliation Agreement with all clinical sites, the student is strictly prohibited from performing sonograms without the sonographer in the room or immediately nearby and from submitting acquired images/clips for interpretation and inclusion in the patient record. The supervising sonographer must observe the student scanning and must submit appropriate images/clips for interpretation.

The student should utilize the assigned Proficiency Performance Objectives, Lab/Clinical Benchmarks and Challenge evaluations for this level to guide his/her scanning experiences and should ensure that the on-site clinical instructor/sonographer is aware of his/her clinical course requirements. Exams that are technically difficult or unfamiliar should be attempted by the student.

The student will begin to work on improving his/her scanning speed in order to complete entire exams. The student’s rate of progress and ability to gain additional scanning time is directly dependent upon the student’s ability to perform the scanning tasks assigned by the Program and/or Clinical Instructor/sonographer.

To ensure that the student maintains learned skills and continues to improve, any procedure previously evaluated may be reassessed at random. The results of the re-evaluation will be discussed and compared to previous evaluations to note improvements and/or deficiencies. If a student is unsuccessful with a re-evaluation, the student will be required to return to directly supervised performance until the instructor determines that the deficiency has been corrected.

The student is required to complete Proficiency Performance Objectives and Clinical Challenges as assigned on the Semester Assignment List for DMSU-253. Evaluations for this level may be conducted in both the Sonography Lab and clinical site settings. Sonography faculty will discuss the student’s progress with the on-site Clinical Instructor(s) and will provide feedback to the student throughout the semester.

Level IV: Winter Intersession and Spring Semester 2
Didactic Instruction
The didactic courses at this Level address advanced sonographic practices and procedures, registry review, and special topics (topics may change from year to year.

Limited Supervision Clinical Performance
The student is assigned 24 clinical hours per week at a clinical site affiliated with the Program and/or the HCC lab. The on-site Clinical Instructor determines when the student is permitted to perform exams with the CI/sonographer in the room or immediately nearby at all times (clinical affiliate student supervision rules will be followed). The student is expected to demonstrate advanced scanning skills and perform as independently as possible (little or no assistance from the supervising sonographer). The student should attempt any and all exams to improve his/her techniques, scanning speed and skills.

- Per the HCC Affiliation Agreement with all clinical sites, the student is strictly prohibited from performing sonograms without the sonographer in the room or immediately nearby and from submitting acquired images/clips for interpretation and inclusion in the patient record.
record. The supervising sonographer must observe the student scanning and must submit appropriate images/clips for interpretation.

The student should utilize the assigned Proficiency Performance Objectives and Challenge evaluations for this level to guide his/her scanning experiences and should ensure that the on-site clinical instructor/sonographer is aware of his/her clinical course requirements. The student's rate of progress and ability to gain additional scanning time is directly dependent upon the student’s ability to perform the tasks assigned by the Program and/or Clinical Instructor. At the discretion of the on-site CI/sonographer and/or HCC faculty and to ensure the student maintains learned skills and continues to improve; any procedure previously evaluated may be reassessed at random.

The student is required to complete Proficiency Performance Objectives and Clinical Challenges as assigned for DMSU-254 and DMSU-255. Evaluations for this level are conducted primarily in the clinical site setting but students may be required to perform Challenges in the Sonography Lab setting as well. Sonography faculty will discuss the student’s progress with the on-site Clinical Instructor(s) and will provide feedback to the student throughout the semester.
II. General Policies and Procedures

Policies and Procedures

Students are expected to agree to and abide by the Student Discipline Policy and Student Rights and Responsibilities regulations as outlined in the HCC Student Handbook.

Academic Dishonesty

Academic integrity is an essential component of professional behavior in Health Sciences programs. Any documented incidences of academic dishonesty may result in an academic penalty up to withdrawal from the specific program.

HCC Health Sciences programs follow the college’s general policies on academic integrity as set forth in the HCC Student Handbook. A copy of the student handbook is available at each administrative office, or may be downloaded from the HCC website at: www.howardcc.edu/students/student_handbook/handbook.html.

Academic work submitted by students shall be the result of their own thought, research or self-expression. For purposes of these regulations, academic work is defined as, but not limited to exams and quizzes, whether taken electronically or on paper; projects, either individual or group; papers; classroom presentations; and homework. When students borrow ideas, wording or organization from another source, they shall reference that information in an appropriate manner. All academic work submitted in the DMS program shall be using the APA format. Usage of any other formatting will result in penalty.

False reasoning or presentation of fake information to the Department Chair, program faculty, and/or clinical instructor for any reason is also considered as academic dishonesty. Stating fake excuse for absence or tardiness to class/clinical, for delayed submission of assignment, for requesting extension of assignment/quiz/exam will be considered as an example of this case.

Student Complaint Procedure

Health sciences programs follow the college’s policies for student complaints as set forth in the HCC Student Handbook. A copy of the student handbook is available at each administrative office, or may be downloaded from the HCC website at: www.howardcc.edu/students/student_handbook/handbook.html.

Sexual and/or Racial Harassment Complaints

If a Health Sciences student has a complaint regarding sexual or racial harassment then the student should refer to the HCC Student Handbook for the policy and procedure related to sexual and racial harassment. www.howardcc.edu/Visitors/HR/Policies/63-01/63-01D.html.

Grade Change Policies and Procedures

HCC Health sciences programs follow the college’s policies on grade change as set forth in the HCC Student Handbook. A copy of the student handbook is available at each administrative office, or may be downloaded from the HCC website at: www.howardcc.edu/students/student_handbook/handbook.html.

Assignment of Grades

The instructor teaching the course shall assign grades. The instructor will provide information to the students at the beginning of the semester regarding the course, including the guidelines for
grading. If the student has questions about a grading policy and/or a specific grade, the student must raise the question while enrolled in the course. If the student is unable to resolve the questions or objections with the instructor, the student is to make an appointment with the Department Chair to discuss the matter or, if the instructor is the Department Chair, with the Division Chair.

**Family Education Rights and Privacy Act**
The following statement concerning student records maintained by the HCC is published in compliance with the Family Education Rights and Privacy Act of 1974. The release of information to the public without the consent of the student will be limited to that designated as directory information. Directory information includes name, address, telephone number, date and place of birth, major field of study, participation in activities, dates of attendance, degrees, certificates and awards, name of the previous educational institution attended, student classification and enrollment status. Any student objecting to the release of all or any portion of such information must notify Admissions and Records within the first 12 class days of the semester. The restriction will remain in effect until revoked by the student.

**Clinical/Practicum Policies**

**Professional Behavior**
Faculty of HCC and the Health Sciences Programs has an academic, legal and ethical responsibility to protect members of the public and of the health care community from unsafe or unprofessional practices. Health Sciences students, while representing HCC at any clinical agency, must conduct themselves in an ethical, professional, and safe manner. Students are expected to assume responsibility for their actions and will be held accountable for them. Students will abide by HCC and clinical agency policies during each clinical experience. Failure to adhere to program specific policies related to professional behavior or safe clinical practice may result in the use of the Progressive Discipline Policy outlined in the DMS program student handbook.

**DMS Program Dress Code**
(Please see appendix 1A)

**Professional Ethics and Confidentiality**
Students must remember that the information concerning patients is confidential. Students are required to adhere to legal and ethical standards as established by regulatory agencies and professional standards. Failure to comply with the above maybe cause for immediate dismissal from the program.

**Safe/Unsafe Clinical/Practicum Practices**
The Health Sciences Programs identify safety as a basic human need. A safety need can be identified as physical, biological, and/or emotional in nature. Safe practices are a requirement.

Unsafe clinical/practicum practice shall be deemed to be behavior demonstrated by the student which threatens or violates the physical, biological, or emotional safety of the patient, caregiver, students, staff or self. Unsafe or unprofessional clinical/practicum practice may result in implementation of the Progressive Discipline Policy outlined in the DMS program student handbook.
The following examples serve as guides to these unsafe behaviors, but are not to be considered all-inclusive.

**Physical Safety:** Unsafe behaviors include but are not limited to:
- inappropriate use of side rails, wheelchairs, other equipment
- lack of proper protection of the patient which potentiates falls, lacerations, burns, new or further injury
- failure to correctly identify patient(s) prior to initiating care
- failure to perform pre-procedure safety checks of equipment, invasive devices or patient status

**Biological Safety:** Unsafe behaviors include but are not limited to:
- failure to recognize violations in aseptic technique
- improper medication administration techniques/choices
- performing actions without appropriate supervision
- failure to seek help when needed
- attending clinical while ill
- failure to properly identify patient(s) prior to treatments

**Emotional Safety:** Unsafe behaviors include but are not limited to:
- threatening or making a patient, caregiver, or bystander fearful
- providing inappropriate or incorrect information
- performing actions without appropriate supervision
- failure to seek help when needed, unstable emotional behaviors

**Unprofessional Practice:** Unprofessional behaviors include but are not limited to:
- Verbal or non-verbal language, actions (including but not limited to postings on social media sites), or voice inflections which compromise rapport and working relations with patients, family members, staff, or physicians, may potentially compromise contractual agreements and/or working relations with clinical affiliates, or constitute violations of legal/ethical standards
- Behavior which interferes with or disrupts teaching/learning experiences
- Using or being under the influence of any drug or alcohol that may alter judgment and interfere with safe performance in the clinical or classroom setting
- Breach of confidentiality in any form
- Falsifying data in a patient health record
- Misrepresenting care given, clinical errors, or any action related to the clinical experience
- Recording, taping, taking pictures in the clinical setting without expressed consent
- Leaving the clinical area without notification of faculty and clinical staff or supervisor
- Absence and/or tardiness to the assigned clinical rotation without prior authorization from the Department Chair

**Progressive Discipline**

Faculty is committed to assisting students to be successful in the program. Therefore, Health Sciences students who are not meeting courses objectives in class, clinical/practicum or lab will be apprised of their performance status using the progressive discipline process. Also, any situation which requires Department Chair’s intervention due to unprofessional behavior,
academic dishonesty, breach of ethics/confidentiality/safety will also initiate the progressive discipline process.

**Step 1: Warning**
The instructor provides the student with a verbal warning or written feedback as to their status. The instructor counsels the student regarding criteria for successful completion of the course and makes recommendations for improvement. Recommendations may include but are not limited to - utilization of peer study groups, tutors, computer-assisted instruction, seeking assistance from HCC counselors.

At the discretion of the instructor and depending on the situation, this step may be skipped and a conference held.

**Step 2: Conference**
The student meets with the instructor in a formal conference to review behavioral or performance concerns. A written Health Sciences Conference Report will identify specific course/program objectives not met, and a remediation plan/contract will be formulated. It will include deadlines for completion, to assist the student to correct the deficit and remain in the program and be successful.

If at any time the student does not comply with all terms outlined in the conference report, the student may be placed on probation or withdrawn from the program.

**Step 3: Probation**
Probation action is implemented for:
- Unsatisfactory clinical performance
- Unsatisfactory clinical attendance and punctuality
- Inability to maintain physical and mental health necessary to function in the program
- Unethical, unprofessional behavior, and/or unsafe clinical practice
- Refusal to participate with a procedure
- Unsafe or unprofessional clinical practice that compromises patient or staff safety
- Behavior which compromises clinical affiliations
- Failure to comply with all terms outlined in the conference report

Probation is a trial period in which the student must improve or be withdrawn from the program.

The student meets with the instructor and the Department Chair. An HCC counselor may be asked to assist in representing the student. The student and faculty will review and sign a Health Sciences Probation Report explicitly stating expectations that must be followed during the probationary period and signed.

Some situations do not allow for the progressive discipline process due to the severity of nature or the timing of their occurrence. Incidents of this nature may require the student to be immediately placed on probation or withdrawn from the program. Examples of these include, but are not limited to:
• Violations of patient confidentiality
• Academic dishonesty
• Falsification of documentation
• Unprofessional behavior/unsafe behavior that seriously jeopardizes patient, student, staff, or preceptor safety
• Unprofessional behavior that seriously jeopardizes clinical affiliations.

NOTE: If the occurrence is past the official college date for withdrawal from a course, the student will receive a performance grade of “F” or “U” as applicable.

Health and Safety Information

Professional Risks
Interactions with patients in the health care system carry inherent risks to both the patient and caregiver, including, but not limited to, communicable diseases. In the curriculum, students will be given information regarding known risks for various diseases and measures to decrease these risks.

All students are expected to provide appropriate care to all assigned patients in any setting. These assignments may include patients with medical diagnoses of tuberculosis; hepatitis A, B, or C; AIDS; or other infectious diseases. Students are expected to implement standard precautions and appropriate barrier protection in the care of all assigned patients.

TB Testing and CPR Requirements
All Health Sciences students are required to provide the following documentation:

• Initial Tuberculosis Screening validated by the two-step TB screening (Mantoux test) and annual one-step screening thereafter (if TB skin test positive, results of a chest x-ray within the past five years.
• Current CPR certification: must meet standards of the American Heart Association (AHA) Basic Life Support for the Healthcare Provider.
• All items must be current for the duration of the coming semester. If any item expires during the semester, it must be completed (Redone) prior to the first day of class or earlier as directed by the program.

All students must have and maintain the acceptable certification for cardiopulmonary resuscitation – American Heart Association (BLS) for Healthcare Providers.

FLU Vaccine
To protect patients and provide a safe environment for students, staff, and the public, all students participating in clinical/practicum experiences/courses in any facility may be required to provide documentation of the seasonal flu vaccine. Failure to have the immunization may have implications for clinical attendance. Students will be provided additional information when indicated.

Health Insurance
The College does not provide personal health insurance coverage for students. All students are encouraged to carry some type of personal health insurance. Should medical care be required, the student is responsible for all costs of treatment/medical care.

Accidents/Exposure
Medical Professional Liability Insurance—Medical professional liability insurance is required for each Health Sciences student enrolled in a clinical course with patient contact. This insurance is purchased automatically through HCC registration fees collected each semester.

**Accident Insurance**—Student accident insurance coverage is required for students participating in certain college sponsored laboratory/clinical activities. The maximum medical benefit is $10,000 per student with a $25.00 deductible. The student is responsible for the $25.00 deductible. For covered classes, the student pays an insurance fee at the time of registration. Student Accident Insurance pays benefits for specific losses from accidents only. Benefits are not paid for loss due to sickness.

The student accident policy provides insurance coverage only while participating in specified laboratory/clinical classes. It does not extend to accidents involving automobiles and incidents outside the laboratory/clinical/classroom.

**Exposure Response**
Students and faculty members who experience an exposure to any potentially infectious materials (needle stick, mucous membrane, or non-intact skin) or airborne inhalation require specific follow-up. It is the responsibility of the individual to initiate appropriate first aid and to report the incident as soon as possible (preferably within one hour) to their immediate supervisor or instructor.

**HIPAA**
The Health Insurance Portability Accountability Act (HIPAA) Act requires that all protected health information be kept private and secure by all persons that handle, or have access to, that information. Since health sciences students, faculty, instructors, and staff use protected health information as part of the educational process (i.e. access to client health data to provide care and use of de-identified health data for educational assignments such as case studies and care plans), all health sciences students must complete an online training module on an annual basis to remain in compliance with HIPAA regulations. Students are not allowed to enter the clinical settings/fieldwork until this training has been completed. Any violations of HIPAA regulations will result in disciplinary actions up to and including withdrawal from the program depending on the severity of the violation.

**Latex Allergy**
Approximately 3 million people in the U.S. are allergic to latex. Latex is used in more than 40,000 industrial, household, and medical products. Exposures to latex may result in skin rashes, hives, flushing, itching; nasal, eye, or sinus symptoms, asthma, and (rarely) shock. Reports of such allergic reactions to latex have increased in recent years. This statement is provided to notify students of the possible risk of latex allergies. It is important to notify the program if you are or become allergic/sensitive to latex products.

**Security Screening**
All students are required to obtain a Security Screening prior to starting clinical coursework in order to participate in clinical experiences. Security screening, including but not limited to criminal background checks, drug testing and/or fingerprinting will be required of those working and volunteering in hospitals and other healthcare settings within the state of Maryland. Students may be required to submit to additional screening at the request of individual clinical agencies or the Administrators of HCC. Refusal to submit to required screenings may result in dismissal from the area of study.
• **Drug Screening**: If a student is rejected by one agency due to a positive drug screen, the DMS program will make no further attempts to place the student in any other clinical agency. This will prevent progression in the course of study.

• **Criminal Background Screening**: If a student is rejected by one agency due to a positive criminal background check, the DMS program will make no further attempts to place the student in any other clinical agency. This will prevent progression in the course of study.

Health Requirements for students admitted to the program must be submitted by the announced due date or risk forfeiting their seat in the program. Returning students must submit annual health requirement for TB screening and flu vaccination by the announced due date; students who are not in compliance with this date requirement will receive a critical unsatisfactory performance for unprofessional behavior. Students will not be allowed in the clinical setting with missing and/or expired health requirements. Any clinical days missed as a result will count towards the total number of absences for the course.

**Period of Validity**
Drug screening will generally be honored for the time the student is in the program unless there is a break in enrollment, defined as being out for one full semester. However, students may be required to test on a more frequent basis depending on the requirements of the clinical rotation site in which they are placed to meet their learning objectives.

**Positive Drug Screen**
A positive drug screen is any instance in which a drug screening report shows a positive test for one or more of the drugs on the panel. Any student with a positive drug screen will not be given placement in any clinical facility and will be withdrawn from the program.

**Confidentiality of Records**
Drug screening reports and all records pertaining to the results are considered confidential information with restricted access. The results and records are subject to the Family Educational Rights and Privacy Act (FERPA) regulations.

### III. Program Policies and Procedures - DMS

**Technical Standards and Essential Functions**
Health Sciences programs establish technical standards and essential functions to insure that students have the abilities required to participate and potentially be successful in all aspects of the respective programs. Students are required to meet technical standards and essential functions for the (Program) as indicated below. If an applicant or student is unable to meet all of the outlined standards, he/she may be withdrawn from the program.

**DMS Program Technical Standards and Essential Functions**
The following technical standards and essential functions outline reasonable expectations of a student in the DMS Program for the performance of common sonographic imaging functions. The DMS Program student must be able to apply the knowledge and skills necessary to function in a variety of classroom, lab and/or clinical situations while providing the essential
competencies of sonographic imaging. These requirements apply for the purpose of admission and continuation in the program.

<table>
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<tr>
<th>Categories of Essential Functions</th>
<th>Definition</th>
<th>Example of Sonography Technical Standard</th>
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</table>
| Observation          | Ability to participate actively in all demonstrations, laboratory exercise, and clinical experiences in the professional program component and to assess and comprehend the condition of all clients assigned to him/her for examination, diagnosis, and treatment. Such observation and information usually requires functional use of visual, auditory, and somatic sensations. | • Adequately view sonograms, including color distinctions.  
• Recognize and interpret facial expressions and body language.  
• Distinguish audible sounds from both the patient and the ultrasound equipment (Doppler).  
• Recognize and respond to soft voices or voices under protective garb. |
| Communication       | Ability to communicate effectively in English using verbal, non-verbal and written formats with faculty, other students, clients, families and all members of the healthcare team. | • Able to elicit information and assess non-verbal information.  
• Accurately transmit information to patients, staff, fellow students, and other members of the health care team.  
• Receive/comprehend, write, and interpret verbal and written communication in both the academic and clinical settings. |
| Motor              | Sufficient motor ability to execute the movement and skills required for safe and effective care and emergency treatment | • Lift more than 50 pounds routinely.  
• Push and pull, bend and stoop routinely.  
• Move, adjust, and position patients and equipment.  
• Have full use of both hands, wrists and shoulders.  
• Apply up to 40lbs of sustained transducer pressure while scanning.  
• Dexterity to manipulate transducer and control panel simultaneously.  
• Work standing 80% of the time. |
| Intellectual        | Ability to collect, interpret and integrate information and make decisions. | • Read and comprehend relevant information in textbooks, medical records, and professional literature.  
• Retain and apply information.  
• Measure, calculate, reason, analyze, and synthesize.  
• Organize and accurately perform the individual steps in a sonographic procedure in the proper sequence and within required time frame. |
### Behavioral and Social Attributes

<table>
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<th>Possess the emotional health and stability required for full utilization of the student’s intellectual abilities, the exercise of good judgment, the prompt completion of all academic and patient care responsibilities and the development of mature, sensitive, and effective relationships with clients and other members of the health care team. Possess the ability to tolerate taxing workloads, function effectively under stress, adapt to changing environments, display flexibility, and learn to function in the face of uncertainties inherent in clinical settings with patients. Possess compassion, integrity, concern for others, and motivation. Possess the ability to demonstrate professional behaviors and a strong work ethic.</th>
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<tr>
<td></td>
<td>• Apply knowledge and learning to new situations and problem solving scenarios.</td>
<td>• Manage heavy academic schedules and deadlines.</td>
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<td>• Perform in fast paced clinical situations.</td>
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<td>• Able to remain calm and focused during instruction for and performance of sonographic exams.</td>
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<td>• Display flexibility and adaptability.</td>
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<td>• Demonstrate professional conduct at all times.</td>
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<td>• Comply with all HCC, Sonography Program, and clinical affiliate policies and procedures.</td>
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<td>• Comply with the Sonographer Code of Ethics, Clinical Practice Standards, and Scope of Practice. (Society of Diagnostic Medical Sonography: <a href="http://www.sdms.org">www.sdms.org</a>)</td>
</tr>
</tbody>
</table>

### Professional Behavior

Faculty of HCC and the Health Sciences Programs has an academic, legal and ethical responsibility to protect members of the public and of the health care community from unsafe or unprofessional practices. Health Sciences students, while representing HCC at any clinical agency, must conduct themselves in an ethical, professional, and safe manner. Health Sciences students, including DMS Program students, should recognize that high standards are set for those working in Health Care professions.

Professionalism in health care is based on values that include, but are not limited to, moral values (honesty, integrity, and trustworthiness), values specific to Sonography (clinical performance standards, appropriate communication), societal values (commitment to excellence), personal values (self-reflection, maintenance of credentials, interpersonal skills), and humanistic values (empathy, compassion). Patients are confronting illness, disruption of their normal routines in life, and life-changing events; therefore, they are anxious about their current condition and future health. Patients rely on health care professionals to address their needs expertly and professionally.

Students are expected to assume responsibility for their actions and will be held accountable for them. Students will abide by HCC and clinical agency policies during each clinical experience. Failure to adhere to program specific policies related to professional behavior or safe clinical practice may result in the use of the Progressive Discipline Policy outlined in Section III of this Handbook.

### Sonography Programs Conduct Standards

- Students will comply with all HCC, Programs and Clinical Affiliate policies, procedures, and rules at all times.
- Appropriate clinical attire must be worn at all times during all clinical courses and lab.
• Students must wear their HCC photo ID at all times during the clinical day; if the clinical site requires an ID, both badges must be showing.
• No food or drink is allowed in the DMS Program skills lab.
• Personal use of the computers in the HCC Sonography labs is prohibited.
• No disruptive behavior of any type is allowed during lectures, labs, or clinicals.
• A student will communicate privately with the instructor regarding their individual performance and/or any clinical concerns.
• Any student appeals to scoring of specific test questions will be submitted to the instructor in writing within one week of the test and will include a rationale and supporting reference citation. The instructor will respond in writing to all test question appeals within one week and will include the final decisions and referenced rationale. All decisions of the instructor to appealed questions are final.
• Learning styles of classmates are to be respected.
• Students are prohibited from after-hours socializing with HCC DMS Program faculty, clinical instructors, sonographers, and staff members during the length of the Program.
• Students must be supervised at all times while scanning in the clinical site and Sonography Lab; students cannot perform the scanning duties of a clinical site staff sonographer.
• Students are only to scan at their clinical sites during the days and times agreed upon at the start of the rotation unless specific permission from both the Clinical Instructor and the DMS Clinical Coordinator has been arranged in advance. Students may only scan at their clinical sites during normal office hours when staff sonographers are available to supervise.
• In accordance with the HCC Academic Dishonesty Policy, falsifying any clinical records will result in the initiation of the Progressive Discipline Process OR may result in immediate withdrawal of the student from the Program.

Sonography Chain of Command
Students who have questions or disputes regarding lecture, lab or clinical course objectives including evaluations, teaching methods or communications with an instructor must first discuss their concerns with the assigned course instructor. If the instructor is unable to resolve the student’s questions and concerns, the student should request an appointment with the DMS Department Chair who will follow up with the assigned course instructor and investigate the issue. The DMS Department Chair may request a meeting with the student and the instructor as part of the resolution process. If the issue continues unresolved, the student should follow The Student Complaint Procedure found in the HCC Student Handbook.

Any issues that arise during the clinical day, such as but not limited to: a difference between the scanning methods, techniques, protocols, etc. utilized at the clinical site and those taught in the classroom or lab sessions must be handled with extreme diplomacy. The student is never allowed to critique or question the CI/sonographers scanning abilities, choice of images or protocol used to complete an exam. The student may ask the CI/sonographer for clarification of his/her techniques, etc., but any questions regarding the appropriateness of what is observed or discussed in the clinical setting must be addressed to the DMS Program faculty and/or Department Chair. The DMS Clinical Coordinator is responsible for decisions regarding whether or not clinical site protocols will be acceptable substitutions for required student competencies.

Electronic Devices
The use of any electronic device is strictly prohibited within the HCC DMS Skills Lab, at the Clinical Site, and during all class sessions. The student is prohibited from using a cell phone or pager while in the clinical site and/or the DMS Skills Lab.

Use of recording devices is prohibited during class sessions unless the student obtains written permission from the instructor.

**Sonography Programs Progression/Retention/Re-Admission**

In order to successfully progress through the DMS Program, the student must:

- Be enrolled in co-requisite courses of a semester at the same time as the DMS Program core courses.
  - c. Withdrawal from any co-requisite course prior to the college official withdrawal date will result in withdrawal from all other co-requisite courses regardless of the current grade in the course.
  - d. Students who fail a co-requisite course are required to retake all co-requisite courses upon readmission.
    - General Education courses must be taken prior to or during the semester listed.
- Achieve a minimum grade of “C” in all DMS Program core and general education courses of the curricula.
  - Due to the sequence and chronological order of courses within the curricula, DMS Program core courses are offered once per calendar year.
- Satisfactorily meet course objectives.

The DMS Program curricula are not lists of courses that must be completed, but are programs of study in which all core courses within a semester are co-requisites. All DMS Program core courses in each semester are prerequisites for the next semester courses, therefore, a grade of “D” or lower in any DMS Program core didactic course prohibits the student from progressing to the next semester. A grade lower than “B” in any DMS Program clinical course prohibits the student from progressing to the next semester. Students who are unsuccessful in one or more courses in a semester of the DMS Program degree plan are withdrawn from the Program.

**Sonography Student Retention**

It is the student’s responsibility to monitor his/her progress in all DMS Program curriculum courses. All DMS Program faculty members utilize the HCC online teaching platform (Canvas) for didactic courses therefore grades are accessible to the student at all times. Grades for clinical courses may or may not be posted to Canvas before the end of the semester; the student must track his/her own grades or request a review of all clinical course evaluations to monitor progress. Students are expected to seek assistance from their instructors and/or the Health Sciences Counselors whenever necessary to maintain a passing grade average in any course.

There is an organized process for keeping students apprised of their grades/professional behavior. The DMS Program faculty utilizes a variety of forms to evaluate the student’s performance in didactic courses, lab sessions, and clinical courses.

**Progress Analysis Form**

The Progress Analysis 2-part form is utilized to inform the student of his/her standing in the DMS Program didactic or clinical course. A copy of this form is included in the Appendix of this handbook.
The student is apprised when an exam grade or the course grade average below 75%, but the instructor may complete a Progress Report form at any time during the semester. A copy of Progress Analysis form is provided to the student and a copy is retained by the course instructor. A student may receive a referral to the Health Sciences Counselor with or without the Progress Analysis form.

**Affective Domain Performance Notification**
The Affective Domain Performance Notification 2-part form is used to inform a student of non-compliant behavior or observed weaknesses during didactic or clinical courses. A copy of this form is included in the Appendix of this handbook.

The DMS Program utilizes the Affective Domain Performance Notification tool as both a verbal and written warning. The student is first provided with a verbal warning of a deficiency that has been noted. If the same or similar deficiency is not corrected and/or warrants a stronger initial warning, a written notification is given with recommendations for improvement and/or change in behavior. Issuance of three (3) Affective Domain Performance Notifications during the length of the Program (pattern of behavior) may result in the initiation of the Health Sciences Progressive Discipline Process.

**Re-Admission Policy**
A student is eligible to apply for re-admission to the DMS Program one time only.

A student who withdraws or is withdrawn from the Program for any reason (personal reasons; failure of one or more Sonography curriculum courses in any semester; health reasons; etc.) is required to complete an Exit Review with the DMS Department Chair. If the withdrawing student does not complete an Exit Review, the student is automatically considered as 'NOT INTENDING TO RETURN' by the program.

During the Exit Review the student may be given a Health Sciences division Offer of Re-entry Eligibility which contains specific details regarding the re-entry process. The Offer of Re-entry Eligibility is not a guarantee that a seat will be available in the semester the student is eligible to return. Students who leave the Program and desire re-entry must sign an agreement detailing the terms under which they will be allowed re-entry into the Program. Unless other arrangements are made in writing by the Program, a student must re-enter the Program in the next semester in which the appropriate courses are offered. Re-entry is based on space available in the requested semester of re-entry and Verification of Competency.

**Re-Verification of Competency**
As previously stated above, all sonography courses within the curriculum are sequenced. Each clinical Level has designated content and assignments; mastery of all Level required skills must be demonstrated for the student to progress to the next Level. A student who is withdrawn from the DMS Program will not attend any clinical course until the semester of re-admission; therefore Verification of Competency evaluations will be completed prior to the start of the re-entry semester to ensure that the student is scanning appropriately for that Level of the Program.

Re-verification of Competency scanning evaluations will consist of completing a combination of Proficiency competencies stated on the Semester Assignment List of the last successfully
completed clinical course. The student must earn a minimum passing grade on each evaluation; “1” for Proficiencies and 75% for Challenges.

The student seeking re-entry may request access to the DMS Skills Lab for practice. Access to the DMS Skills Lab during a semester is determined by Lab availability; therefore a schedule for Lab use must be developed. The student must present a receipt of payment of the Insurance fee for that semester. At least one DMS Program faculty member must be on-campus for the student to utilize the lab. The student will arrange for a scan volunteer in accordance with DMS Program Lab Volunteer procedures. The student must abide by all DMS Program Lab Rules while using the DMS Skills Lab for practice.

Please refer to the following chart for the re-entry requirements; additional requirements may be assigned to a student seeking re-entry.

<table>
<thead>
<tr>
<th>Withdrawal Level/Semester</th>
<th>Re-entry Process and Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (Spring I)</td>
<td>Re-apply for admission for next admission class.</td>
</tr>
<tr>
<td>II (Summer I)</td>
<td>Concurrent enrollment in any uncompleted General Education courses listed in this semester is required.</td>
</tr>
<tr>
<td>III (Fall)</td>
<td>Written request for re-entry must be received by the DMS Program no later than 90 days prior to the start of the semester.</td>
</tr>
<tr>
<td>IV (Winter)</td>
<td>All re-entry requirements must be met by the deadline stated in the Offer of Re-entry Eligibility.</td>
</tr>
<tr>
<td>V (Spring II)</td>
<td>Concurrent enrollment in all DMS Program core and in any uncompleted General Education courses listed in this semester is required regardless of previous successful completion of the DMS Program core courses.</td>
</tr>
</tbody>
</table>

A student will be readmitted on a space available basis (in clinical rotation) using the following priority guidelines based on reason for withdrawal:

- Priority 1: for health and/or personal reasons. The student was passing all didactic and clinical courses at the time of withdrawal.
- Priority 2: failure of one didactic course with satisfactory completion of all other semester courses.
- Priority 3: failure of two or more semester courses.

If more than one student requests readmission within a Priority category available seats will be offer to the students according to GPA rank derived from performance grades in the DMS Program core courses completed at the time of withdrawal.

**Not Eligible for Re-entry**

During the Exit Review a student may not eligible for re-entry if a severe infraction/violation occurs. These infractions/violations include, but are not limited to:

- Academic dishonesty
- Falsification of documentation
- Confirmed substance abuse
Change in criminal history

Program Attendance
Lecture, lab and clinical schedules are provided to the student prior to the beginning of each semester. Due to the intense nature of sonography education, missed class or clinical hours may seriously affect a student's ability to complete the requirements of his/her course(s).

Each course syllabus contains information regarding attendance requirements and procedures.

Student Work and Educational Schedule
As in all of the Health Sciences Programs at HCC, working full-time while in the DMS Program is extremely difficult and not recommended since work schedules generally conflict with class and/or clinical rotations. Any activity that impairs the student’s ability to attend class, participate actively in all classroom, lab and clinical sessions, and/or meet the requirements of each course must be avoided. Students are encouraged to visit with the Health Sciences Counselor regarding time management and study skills improvement.

Clinical Attendance
Lecture, lab and on & off-campus clinical schedules are provided to the student prior to the beginning of each semester. A Clinical Site Instructor may adjust or change a student's clinical schedule times by contacting the applicable Clinical Coordinator. Clinical attendance is mandatory and may not be adjusted without prior authorization from both the site Clinical Instructor and the DMS Clinical Coordinator.

Due to the intense nature of sonography education, missed clinical hours may seriously affect a student's ability to complete the requirements of his/her course(s). See each course syllabus for detailed information regarding attendance requirements and procedures.

The student will record his/her exact start and end times for each clinical day, including the assigned lab session. Each week the total number of hours is recorded on the bi-monthly Attendance record and on the Attendance Total Hours page. The instructor must initial all start and end times.

Call-In Procedure for Clinical Absence
The student is required to notify the DMS Program Clinical Coordinator and the clinical site by phone (emails and text messages are not acceptable) at least 30 minutes before his/her shift start time if he/she will be absent.

- When calling the DMS Program Clinical Coordinator, the student should state whether or not the clinical site has been called and if he/she left a message on the answering system or with a person.
- The student will document the name of the person taking their message of absence for that day.
- The Absence Form must be completed by the student and given to the Clinical Coordinator during the next on campus day.
- Failure to follow this communication procedure will initiate the Progressive Discipline Process, or even put the student directly to Probation or Withdrawal status depending on the severity.
The off-campus clinical day is 8 hours in length which includes a minimum ½ hour lunch break; on-campus lab session hours are as assigned. On-campus clinical activity may include mentoring, volunteering, and participating simulation activities. The Clinical Assignment form states the specific time the student is required to report to his/her clinical site. The student must contact the DMS Program Clinical Coordinator or other faculty for permission to leave the lab and/or clinical site before the assigned end time of the day/session.

Any adjustments or changes to the student’s regular clinical schedule must be submitted on the appropriate form to the applicable Clinical Coordinator in advance of the adjustment.

Reporting of Serious Illness/Injury or Communicable Disease
A student having an injury or communicable disease must report the condition to the appropriate Program Faculty, Program Clinical Coordinator, and/or Department Chair. The fact that a student has an injury or communicable disease may prevent the student from performing safely in the clinical area; however, the student is not relieved of the course requirements, including completing the assigned clinical hours. All reasonable efforts will be made to protect the student’s right to confidentially.

The student must submit the Medical Clearance: Return to Clinical Form to return to clinical rotations after diagnosis of serious injury and/or communicable disease. This form must be completed by the student’s physician or health care professional.

All students are to follow Standard Precautions in the clinical area for the protection of patients and themselves as outlined in the current Centers for Disease Control and Prevention guidelines.

Sonography Clinical Rules
1. Students must comply with all HCC, DMS Program and Clinical Affiliate policies, procedures, and requirements at all times.
2. The student must always introduce his/herself to staff and patients as a Howard Community College Sonography student.
3. All clinical records must be completed accurately, legibly and appropriately. All records must be up-to-date each and every clinical day.
4. Students must comply with the Appropriate Clinical Attire requirements during all clinical rotations (on-campus and off-campus sites).
5. Students are allowed to use the on-campus DMS Program Skills Lab computers for sonography activities only. Students are allowed to use the clinical site computers for clinical activities only and under the direct supervision of the clinical instructor. Personal use of these computers is strictly prohibited.
6. No food or drink is allowed in the DMS Program Skills Labs and at the off-campus clinical site departments.
   - Students may have snacks and/or water in sealed containers in the storage cubby provided in the lab for use during short breaks during the on-campus clinical session. Food and drink must be consumed outside of the Sonography Lab.
   - The student should inform the CI or sonographer if leaving the department for any reason.
7. Cell phones and pagers are prohibited.
   - The student may not have a cell phone or pager on his/her person while in the Lab or while at the clinical site. Provide your family, or other necessary individuals with Sonography and Clinical department contact numbers.)
8. Arrive on time and be present, attentive and eager to participate as much as possible in all exams during the clinical rotation.

9. Students must demonstrate professional conduct at all times. Any non-professional conduct or disruptive behavior will cause the student to be dismissed from the on-campus or off-campus clinical site and will result in a disciplinary action.

10. The student should ask questions and have discussions with the CI/sonographer at appropriate times; maintain HIPAA confidentiality at all times; discuss any concerns with his/her instructors in private.

11. Whenever the student utilizes the DMS Program Skills Lab or attends a clinical site, he/she is responsible for
   a. preparation of the scan room/station
   b. careful, safe and ergonomic use of the furniture and equipment in the scan room/lab/department; dims lighting as necessary
   c. providing appropriate patient care before, during, and after the scan
   d. accurately entering the patient data/information into the ultrasound unit
   e. obtaining all images/clips required of the exam/scan being performed
   f. requesting feedback on his/her scanning and patient interaction skills after the exam/scan is concluded
   g. cleaning the transducer, ultrasound unit, scan table and ancillary equipment after scanning and at the end of the lab session
   h. returning the scan table and chair to the lowest settings
   i. completing all self-assessment of scanning as required
   j. all duties assigned by the faculty member and/or clinical instructor

12. When a patient (all persons scanned by the student in any setting are considered to be patients) is to be scanned, the student will
   a. introduce themselves appropriately to the patient
   b. take the patient to the scan room and confirm the patient’s name
   c. explain the exam/scan process and procedure
   d. obtain appropriate patient history for the exam/scan to be performed
   e. conclude the exam/scan appropriately
   f. maintain HIPAA compliance at all times

13. Students do not perform sonographic scans/exams without the CI or staff sonographer present; the CI or staff sonographer must scan the patient and submit the required documentary images/clips. If asked to perform an exam independently and submit your images for interpretation, the student is expected to decline and explain that he/she is not allowed to perform as a staff sonographer. If needed, contact the DMS Program faculty for assistance and/or clarification of this restriction.

14. Children are not allowed in the DMS Program Skills Lab; children are allowed to wait in the area/hallway outside of the DMS Program Skills Lab if they are supervised by an adult (not by the student). Older children/teens may wait unattended.

**Required Clinical Attire**

Student’s grooming practices shall make ample provision for sanitation, safety, and comfort and shall not draw unnecessary attention to the student so that all can focus their attention on their work and our collective efforts to serve patients. All students shall be required to present a clean, neat, and professional appearance and to dress in a manner appropriate for a professional health care environment. Extreme styles, recreational clothing (in place of or worn with required scrubs), excessive jewelry, and perfumes/colognes or excessive make-up are not acceptable work attire (see below). The On-Site Clinical Instructor or the DMS Program faculty member may dismiss the student from the clinical day or lab if his/her appearance is not acceptable.
Uniform requirements and rules include:

1. Wearing appropriately fitting solid Teal colored scrubs for all on-campus and off-campus clinical rotation assignments
   - scrub top in any style (a white T-shirt may be worn under the top if needed)
   - scrub pant in any style
   - long-sleeved scrub jacket
     a. jacket must be worn when leaving the on-campus or off-campus Sonography department/lab to prevent the spread of disease
     b. if the student wears the jacket while scanning, he/she must remove the jacket when leaving the on-campus or off-campus Sonography department/lab to prevent the spread of disease
2. Wearing appropriate undergarments which cannot be visible at any time.
3. Wearing standard HCC photo ID and name pin at all times in the DMS Program Skills Lab and in all clinical areas; the name pin should be at least 1" by 3" in size, white with black letters and rounded corners, first name only. If a clinical affiliate requires the student to wear the affiliates ID badge then both the HCC and clinical affiliate badges must be visible at all times.
4. Wearing clean all white leather walking or clog shoes white appropriately colored socks (white, or coordinated with Teal scrubs); no cloth or shoes with air holes on the top (such as "Crocs").
5. Wearing jewelry such as engagement rings, wedding rings, graduation rings, small post or hoop earrings, and wristwatches. No other jewelry or body piercing materials may be visible while in any clinical setting. Lanyards are not permitted due to hygiene and safety issues.
6. Wearing natural-appearing make-up; natural-to-pale nail polish, and keeping fingernails clean, trimmed and short. Nail polish must be free of chips and students are not allowed to wear finger nail extensions.
7. Styling hair neatly so that it does not interfere with patient care or the performance of job:
   - Hair cannot be in the face, in or over the eyes or hang forward over the shoulders;
   - Hair longer than shoulder length should be styled or arranged to avoid violation of the principles of medical asepsis (i.e.: pulled back in a clip, in a ponytail);
   - Hair-colored or white clips, pins or other hair holders may be worn in the hair to have a neatly controlled appearance;
   - Beards and mustaches are acceptable if kept clean and neat (closely trimmed);
   - No fad designs or colors are allowed.
8. Covering body tattoos at all times when in the clinical and clinical lab settings.
9. Wearing appropriate surgical caps and masks to completely cover head and facial hair if working in Surgery or any other area where a surgical procedure is taking place.
10. Wearing a form of personal insignia such as armbands, buttons, hats, etc. is strictly prohibited in order to minimize distraction and preserve professionalism.

Clinical Reporting Requirements

1. Students are responsible for keeping up with all clinical reporting requirements in a timely manner including but not limited to attendance and case logs, pathology records,
evaluation forms, and competency requirements. The program may employ the use of an online clinical tracking system for this purpose.

2. Students will receive instruction in the correct use of the clinical tracking system and record keeping in DMSU-102.

3. All documentation must be recorded accurately and reflect a student’s actual time spent, clinical experiences, evaluations, and personal competency assignments.

4. Questions regarding clinical documentation and record keeping will be addressed by the DMS Program Clinical Coordinator or the course instructor. The student should not rely on the opinions or directions given by other students in completing his/her documentation.

5. Attendance and Case Logs must be accurately recorded daily; recording cases observed and/or scanned must be HIPAA compliant.

6. The student marks the Pathology Record when pathology is observed and/or scanned in each semester.

7. The Semester Assignment List presents the evaluation requirements for each 5 week segment of the clinical course and documents the student’s completion of the evaluations. This document remains in the student’s clinical file.

8. Students are required to complete a Clinical Site Evaluation Form and total their Case Logs at the end of each rotation/semester.

9. All clinical course evaluations and notations are private and should be treated as such by the student; sharing and/or comparing evaluations or scores demonstrates a lack of professionalism on the part of the student.

**Case Logs**

The student is expected to document all exams/scans observed or scanned during scheduled clinical days in the Trajecsys clinical tracking system. The student will document the type of experience, their level of participation with the exam (observed, assisted with patient care, scanned with a lot of assistance, scanned with minimal assistance, or scanned independently), whether or not pathology was present, and the name of the sonographer who supervised them during the study.

To protect patient’s privacy and in adherence to HIPAA requirements, students are asked to code each exam using the last 3 digits of the patient’s medical record number (MRN) and the initials of their first and last names (i.e. 543lb). No patient names, record numbers or any other identifying data should be included on the Case Log pages (HIPAA). Pages of the student’s pocket note book or other notes regarding the number and type of cases observed and/or scanned during the day MUST be recorded in the Case Logs and those note pages must be destroyed before leaving the clinical site.

In addition, special case log books are on campus in each scan bay so students can document their scanning activities during Open Lab sessions and didactic labs. Students will document their name, the model’s name, what study was performed, whether or not a scan model waiver form was completed, and their findings. Scan bay binder entries are to be signed off on by the open scan lab instructors before a student leaves the lab.

All images/exams recorded by a student using live ultrasound equipment in the DMS Program Skills Lab must remain within the lab setting or in the student’s clinical course records to maintain compliance with HIPAA.

**Required Scanning Experiences**
Students will be required to record all exams/scans that they have participated in or performed during lab, clinical or open lab hours. It is very important that all exams are recorded as these documents will be used to track the total number of exams completed while in the Program.

Students obtain their hands-on scanning experiences in the DMS Program Skills Lab and clinical settings. If a student cannot meet the required number of scanning experiences assigned for each week or otherwise specified time period, he/she is required to confer with the course instructor for guidance.

Scanning experiences are central to demonstrating expected progression and attainment of sonographic skills that allow for increased hands-on scanning experiences throughout the length of the DMS Program, and for mastery of the technical skills required of HCC DMS Program students and graduates. Therefore it is incumbent upon the student to obtain as many hands-on scanning experiences as possible using all resources that are available to students in both the clinical and lab settings. A student may be allowed additional access to the DMS Program Skills Lab to meet the requirements of the clinical course.

**Clinical Evaluations**

Clinical evaluations will be completed by both site Clinical Instructors and DMS clinical faculty. Students can expect to receive feedback on practice and graded competency assignments, their ethics and conduct at the clinical site, their overall clinical performance, and comprehensive scan exams. Instruction for assignments, exams, and evaluations and their due dates are provided to the student at the beginning of each semester in each clinical course syllabus and in Canvas.

Students are responsible for completing all clinical course requirements by the due dates stated on course syllabus, accurate Case and Time Logs in Trajecsys, and Student Self-Evaluations and Evaluations of the Clinical Experience each semester. In addition, students are responsible for getting their Clinical Instructor to complete Graded Competency Forms, Overall Student Evaluations, and Ethics and Conduct Evaluations for each clinical rotation. Finally, students should expect to receive periodic site visits from an HCC DMS faculty member. Feedback from these visits will be recorded on a Site Visit Form as part of the student’s permanent record.

**Clinical Evaluation Tools**

Clinical evaluation tools utilized by the DMS Program are provided in course syllabi, Canvas courses, the Trajecsys clinical tracking system, and in the DMS Skills Lab. Students must adhere to all policies and read all instructions for completing these evaluations.

**On-Campus Clinical Labs**

Students are expected to participate fully in all scheduled clinical lab activities as assigned by the instructor. During the assigned on-campus clinical lab session, a student may request a short restroom break. Students should not leave the lab for long periods of time or without informing a faculty member; eating and drinking are not allowed in the lab.

Due to time constraints, evaluations in the On-Campus Lab may be scheduled outside of the regular assigned lab session. A student’s evaluation will be scheduled by his/her lab instructor.

DMS Program students are strongly encouraged to take advantage of every opportunity to utilize the DMS Program Skills Lab and its resources. Open Scan Lab sessions may be scheduled; an Open Scan Lab is a designated time for students to practice the techniques and
skills taught during the regular Lab Session. Students also have access to the Sonography Lab before, between and after on-campus lecture courses. Due to variability in campus operating hours, access to the DMS Program Skills Lab may not be possible on certain days and times. Please see faculty regarding lab availability.

**Open Scan Lab Sessions**

Open Scan Lab is a designated time for students to practice the techniques and skills taught during the regular Lab Session. A DMS Program faculty member must be present to provide general supervision of the lab. The student will sign in and out and record which skills bay he/she utilized during the scanning session.

The student must arrange for his/her volunteer for practice scanning. All volunteers must sign the Volunteer Waiver Form which must be witnessed and signed by the HCC DMS Program faculty member present during the Open Lab session.

Students may reserve a time during an Open Scan Lab on the sign-up schedule posted on an online scheduling system and/or by contacting the course instructor for a reservation. If the student is not able to utilize the selected time period, he/she may trade the reserved time with another student or not attend lab at that time.

Open Scan Lab beside mandated 8hr/wk requirement is optional but encouraged. Scanning during Open Scan Lab does not replace lab instruction and/or clinical hours. Due to variability in campus operating hours, access to the DMS Program Skills Lab may not be possible on certain days and times. Please see faculty regarding lab availability.

**Sonography Student Peer Scanning**

The HCC DMS Program student is encouraged to volunteer to be scanned by other students during the course of the program. The DMS Program faculty believes it is important for each and every student to experience the role of a patient in the sonography department. The DMS Program Skills Lab is the primary location for student’s to obtain hands-on instruction throughout the length of the program. Scanning of peers or volunteers is not allowed unless a DMS Program faculty member is physically present to monitor the use of the DMS Program Skills Lab.

Each student that wishes to volunteer for peer scanning is required to sign the Volunteer Scanning Waiver Form. The procedure for student peer scanning is detailed on the waiver form. The signed form will be kept in the student’s file and will be in effect throughout the length of the program.

The Sonography Program faculty recognizes and respects the student’s decision not to participate in peer scanning. A declination of peer scanning will not impact the student’s grades or standing in the program.

DMS Program students that are or become pregnant during the course of the Program MAY NOT be scanned by any student or faculty member unless the pregnant student meets the requirements stipulated for all obstetric volunteers (see Student Lab – Volunteer Scheduling Procedure).

**On-Campus Clinical Lab Volunteer Scheduling**
The DMS Program accepts volunteers wishing to assist DMS Program students with attaining hands-on scanning skills and competencies. Volunteers are accepted for each specialty Lab session (abdominal organs and vessels, pelvic organs and structures, thyroid, and obstetrical, heart, blood vessels throughout the body). These individuals must contact the DMS Program Clinical Coordinator to obtain information about volunteer requirements and to schedule the appointment(s).

All student scan lab sessions are 100% supervised by an ARDMS credentialed DMS Program Faculty member. All volunteers must be in good health; those individuals seeking medical care or diagnosis are not accepted as volunteers and are directed to contact their health care provider for assistance. The Clinical Coordinator and/or faculty inform all potential callers of the criteria to volunteer for a DMS Program lab session. All volunteers must sign the Volunteer Waiver Form. Volunteers for obstetrical scans must obtain written permission from their health care provider and must meet the criteria of the DMS Program for gestational age and pregnancy status.

All OB volunteers must be scheduled by the DMS Program for scheduled Clinical Lab and Open Lab sessions. Contact the DMS Program Clinical Coordinator for OB volunteer scheduling criteria and process.

Off-Campus Clinical Volunteer Scanning
During the clinical day the staff and/or sonographers at the student’s clinical site may agree to volunteer for student practice scanning when time and the clinical schedule allows. The staff and/or sonographers are not obligated by the DMS Program to provide this type of scanning opportunity and the student should respect the wishes of the staff and/or sonographers regarding practice scanning.

Pregnant staff and/or sonographers will not be scanned by the student at the clinical site unless a standard exam is scheduled. The pregnant staff member or sonographer must provide the Program with written permission from the health care provider before the student will be allowed to practice scan the pregnancy.

Donated Case Study
If a clinical affiliate site wishes to donate sonographic images or video clips, the sonographer at the site must contact the DMS Program directly to initiate the donation. The DMS Program student is prohibited from initiating the donation process and may not accept or remove from the site any images/video clips, reports, or copies of the patient records regardless of level of de-identification of the patient record or information.

In compliance with HCC HIPAA procedures regarding the use of donated de-identified patient information (sonographic teaching case studies), the following procedure must be followed:

All films, videos, clips must be de-identified prior to the study leaving the clinical site. This may be done electronically (deleting the patient name and MR number from the study) or physically (cutting the patient name and MR number out of the films). Films, videos and clips that cannot be de-identified prior to the case leaving the donating clinical site cannot be used by the program and will not be accepted.

Failure to follow the above procedure will result in disciplinary actions for the student and the faculty.
De-identified case studies donated to the DMS Program will be logged into the appropriate section of the Donated Case Log and the studies will be labeled according to the type (Abdominal, Adult Echo, etc.) and number assigned to the case. For example, an Upper Abdominal studies will be labeled A1, A2, etc. Adult Echocardiography studies will be labeled AE1, AE2, etc. The Donated Case Log will also record which course the study will be utilized for teaching during the curriculum.

It is the responsibility of the DMS Program faculty to appropriately log and label each donated case. The Donated Case Log will be maintained in the DMS Program Clinical Coordinator office and will be available for inspection by the HIPAA Task Force at any time.

**Sonography Student Pregnancy Policy**
Because there is no ionizing radiation involved in ultrasound, a student can participate in all program activities contingent upon the student’s physician approval. The Program will require the student to inform the Department Chair if pregnancy is confirmed. Since Ultrasound Department/facilities are frequently in close proximity to Radiology Departments, the Program may provide the pregnant student with a radiology dosimeter to monitor her while she is in clinic, if applicable. Additionally, it will be required that the student provide a letter from her physician indicating she can participate in program activities.

Although pregnancy is not an illness, the student’s ability to meet all course requirements during her pregnancy may be affected. The student is not excused from any course requirements including attendance requirements. When a student informs the Department Chair of her pregnancy and expected due date, the Department Chair and Health Sciences Counselor will apprise the student of all the remaining requirements of the degree plan courses. Missed clinical hours and/or lecture/lab courses may be made up during the Level in which the student has missed clinical time or lecture/lab activities; if the absences equal more than 1 week for clinical hours or two lecture/lab class sessions it may not be possible for the student to make up the lost time. Should the pregnancy come to term while the student is in Level V, the student may be given an “Incomplete” and allowed to make up the missed activities/classes during the intersession or the next semester.

At any point during the Program, if the pregnant student’s previous performance in the Program has been acceptable, she may elect to withdraw in good standing from the program and she will be allowed to return to the Program the following year on a space available basis.

**Student Working as Staff**
Students in the DMS Program will not be substituted for regular staff even though they may be competent in certain aspects of sonography. Should a student be employed in any ultrasound facility that is an affiliate of the program, they may do so only during times where it does not involve or conflict with program activities. Additionally, should a student be employed by a facility where clinical rotation is normally conducted; they may not use any “employer time” to substitute for program clinical requirements.

**Student Visiting the Clinical Site (non-assigned)**
Students are prohibited from visiting any clinical site (unless employed by the site or as a patient treated at the site) utilized by the Program outside of assigned clinical education hours or as required by the program (pre-rotation visit).

**Student Use of Ultrasound Equipment (non-assigned)**
Students enrolled in the HCC DMS Program may have access to ultrasound departments or equipment in their place of employment. During scheduled and assigned clinical education hours, the HCC DMS Program student is expected to participate in scanning and is covered by the HCC Liability Insurance. However, students using ultrasound equipment in the workplace for practice is not required, expected, or condoned by the HCC Sonography Program. Use of ultrasound equipment in this manner is unethical.

IV. DMS Program Student Resources


Important Phone Numbers
Emergency: 5555 from any HCC phone; (443) 518-5555 from any phone
Office of Admissions and Advising: (443) 518-1200
Health Sciences Division Office: (443) 518-4832
DMS Department Chair: (443) 518-3430
DMS Program Clinical Coordinator: (443) 518-3409
DMS Program Skills Lab: (443) 518-2261
Fax: (443) 518-4494

Sonography Profession Resources
Society for Diagnostic Medical Sonography (SDMS), www.sdms.org, is a resource for Sonography Code of Ethics, Clinical Practice Standards, the National Minimum Standards for Diagnostic Ultrasound Professionals, Sonography Career information, Model Job Description, sonographer safety and other information. The SDMS Foundation provides scholarships and grants for students and sonographers for educational purposes. Many educational publications (Journal of Diagnostic Medical Sonography), webinars, and conferences are available to all SDMS members. Please contact your Department Chair for information on the scholarships and grants offered by the SDMS. Student membership at a reduced rate is available.

American Society of Echocardiography (ASE), www.asecho.org, provides resources for practitioners and students of Cardiac Sonography. The ASE publishes a journal and many other educational products, some of which are online, that members receive as a benefit of membership. The ASE conducts an annual conference that is available for all members. Student membership is available at a reduced rate and the ASE offers scholarships and grants to students for educational purposes. Please see the DMS Department Chair for information on student membership, scholarships, and grants offered by ASE.

Society of Vascular Technology (SVU), www.svunet.org, represents vascular technologists, vascular physicians, vascular lab managers, nurses, and other allied medical ultrasound professionals. Since its founding the SVU has been dedicated to the advancement of noninvasive vascular technology used in the diagnosis of vascular disease, through education programs, publications, and certification. The SVU offers student membership at reduced rates and many online resources for vascular technologists/sonographers and students. Please see the DMS Department Chair for information on SVU student membership and other student benefits.
Sonographer Credentialing
American Registry for Diagnostic Medical Sonography (ARDMS), www.ardms.org, offers exams in Abdominal and Superficial Structures, Obstetrics and Gynecology, Adult and Pediatric Echocardiography, Vascular Technology, Neurosonology, Breast, and Musculoskeletal Sonography. The ARDMS Sonography Principles and Instrumentation (SPI) exam is required for all credentials; an individual seeking to obtain ARDMS credentials must take the SPI and at least one of the specialty exams to earn the applicable credential.

HCC DMS Program graduates may be eligible to apply to take the ARDMS exams under Prerequisite #1 or #3A. Students are able to apply to take the ARDMS SPI exam after completing DMSU-211 and DMSU-212.

In addition to ARDMS credentials, HCC DMS Program graduates of cardiac/vascular concentration who were admitted to the program prior to September 1, 2013 will be eligible to apply to take certain CCI credentialing exams (Ex: RCS, RVS).

While other credentialing organizations offer Sonography exams, the ARDMS remains the “gold standard” for sonographer credentialing. The HCC DMS Program follows the ARDMS exam content.

Program Development and Content Resources
Commission on Accreditation of Allied Health Education Programs Standards and Guideline for the Accreditation of Educational Programs in Diagnostic Medical Sonography (www.caahep.org)

American Registry for Diagnostic Medical Sonography (exam content outlines) (www.ardms.org)

Society for Diagnostic Medical Sonography (Code of Ethics, Scope of Practice, and Clinical Practice Standards) (www.sdms.org/positions/default.asp)

Joint Review Committee on Education in Diagnostic Medical Sonography (Sonography National Education Curriculum; Programmatic Accreditation Site Visit Summary form) (www.jrcdms.org)

Maryland Higher Education Commission Workforce Investment Act (www.mhec.state.md.us/career/WIA/index.asp)

DMS Program Student Practices
- The successful DMS Program Student will accept responsibility for his/her own learning and seek assistance to improve his/her grade whenever necessary.
- The successful DMS Program Student will comply with all Program and course requirements, policies, and procedures.
- The successful DMS Program Student will take advantage of Open Scan Lab times and any tutoring and feedback that is given to improve grade standing.
- The successful DMS Program Student will appropriately utilize course syllabi, HCC Student Handbook, DMS Program Student Handbook, the course site on Canvas as resource documents for success in the DMS Program.
- The successful DMS Program Student will exhibit professional demeanor and qualities during didactic and clinical courses.
- The successful DMS Program Student will initiate activities that promote an in-depth study of sonography practices and principles by assertive participation in challenging...
The successful DMS Program Student will remain calm under a variety of situations the ability to focus and multi-task, comprehend and follow verbal and written instructions, apply didactic knowledge to clinical practice and retain previously learned information/skills.

The successful DMS Program Student will recognize that performing sonographic exams/procedures requires development of specialized skills including hand-eye coordination and mental visualization of 3-dimensional anatomy, critical thinking skills and an in-depth knowledge of normal and pathologic conditions and sonographic appearances.

The successful DMS Program Student will recognize that even if given appropriate instruction in scanning techniques, critical thinking processes, clinical skills and normal/pathologic sonographic appearances, the aptitude to perform sonographic exams rests solely with the student's inherent abilities.

Frequently Asked Questions

**FAQ 1. How Can I Get Everything Done? There's Not Enough Time and there's So Much to Study!**

From: www.campbellpharmacy.net/students/academic-support/time-management.html

How to Manage Time and Set Priorities:

What Are the 3 Rules for Effective Time Management?

1. **Don’t Create Impossible Situations.** Don’t get trapped into doing too much. Don’t try to work full time and take a full load. Don’t take too many lab classes. Use time to create success, not failure. Be realistic about school. For most classes, plan to study 2 hours for every 1 hour of class. Make time your friend not your enemy. Identify your first priority classes and do whatever it takes to succeed. Drop second priority classes or reduce work hours if necessary.

2. **Define Your Priorities Using the 3-List Method.** All time management begins with planning. Use lists to set priorities, plan activities and measure progress. One approach is the 3-list method. List #1 - The weekly calendar. Create a weekly calendar. Make it your basic time budgeting guide. List your courses, work, study time, recreation, meals, TV, relaxation, etc. Plan to study first priority classes when you work best. Be flexible; adapt your schedule to changing needs. Keep your schedule handy and refer to it often. If it doesn't work, change it. List #2 - The daily “Things to Do”. Write down all the things that you want to do today. Note homework due or tests or subjects you want to emphasize. Include shopping and personal calls, etc. This list is a reminder. Use it to set daily priorities and to reduce decision-making and worry. If time is tight, move items to your long-term list. Rewrite this list each morning. Use visualization to help you focus on what to do. This list is also a measure of your day-to-day success. Check off items as you finish them and praise yourself for each accomplishment. List #3 - Goals and other things. This can be one or two lists, a monthly list and or a long-term list. Put down your goals and things you have to do. What do you want to accomplish over the next month or year? What do you need to buy? Use this list to keep track of all your commitments. If you're worried about something, put it on this list. The purpose of this list is to develop long-term goals and to free your mind to concentrate on today.
3. **Avoid Distractions and Lack of Focus.** Time is precious. Yet many people waste time by getting stuck in one or more of the following habits.
   a. Procrastination - putting off important jobs.
   b. Crises management - being overwhelmed by the current crisis. No time for routine matters.
   c. Switching and floundering - lack of concentration and focus on one job.
   d. Television, telephones and friends - these are all ways of avoiding work.
   e. Emotional blocks - boredom, daydreaming, stress, guilt, anger and frustration reduce concentration.
   f. Sickness - getting sick and blowing your schedule.

In all of these cases, the first step is to recognize the problem and resolve to improve. Use priority lists to focus attention. Try positive self-talk. To avoid distractions, find a quiet place to study, the library or a study hall. Get an answering machine.

**FAQ 2. I don’t think my study skills are working for this course!**

5 Powerful Study Tips From: [www.classesandcareers.net/2008/02/21/5-powerful-study-tips/](http://www.classesandcareers.net/2008/02/21/5-powerful-study-tips/)

College is a ceaseless barrage of assignments, deadlines, and papers. Somehow, between running to classes and pounding out essays, you have to actually absorb the deluge of information being thrown your way, to say nothing of maintaining your sanity and sense of normalcy.

Although learning styles differ, it has been found that certain techniques almost universally help students learn and retain knowledge better and faster. Check out the following five ways to improve your study skills:

1. **Repetition. Repetition. Repetition.** Did I mention repetition? That’s probably because “repetition is the mother of knowledge.” It was true when you were a newborn babe, and it’s true now. Humans learn by being exposed to things again and again and again. Research has found that humans, on average, must encounter information seven times before they commit it to long-term memory. Other research has found that frequently returning to the same information greatly increases retention. How does this apply to you? It means that attending lecture isn’t enough. It means that you need to increase the number of times you see and think about the things you are learning. This may be as simple as reviewing your lecture notes the next day, reviewing material in a study group, or doing assigned homework exercises. The more you return to the information, the greater your chances that the information will be in your head when you need it.

2. **Take notes.** Something magical happens in the brain in the process of taking spoken information into the ears and translating them into words on the page. The brain has to process the information once when it hears it and then once more when it sends the signals to the hand to write it. The result: your brain thinks twice about information it is receiving, which is a good thing!

So, don’t substitute the digital recorder for taking good notes. Notes go a long way toward increasing retention. Returning to your notes can recall important memories of lectures and intuitive links made during those lectures. They are an essential companion to repetition.

To increase the power of note-taking, don’t just write down rote what the professor has on the board. Change up the wording. Put it in language you can understand and will easily recall later.
This adds one more opportunity for your brain to process the information before moving on to the next item.

3. **Diagram it.** Before letters and words came along, man started his communications career using pictures to convey feelings, stories, and information. It seems the human brain is just hardwired to understand the world through pictures. So, you might as well use this unique ability to get through school.

When studying complex concepts, try sketching out diagrams that explain them in succinct but correct ways. Put these diagrams in the margins of your notes, over your Gene Simmons poster, or somewhere else where you will see them often. You will be amazed at how these diagrams pop right back into your head during exams or even later during crucial job interviews-instead of, say, pictures of Gene Simmons.

4. **Create a space.** Maybe as important as how you study is where you study. Places with lots of noise or activity create traffic jams in your brain with only limited amounts of desired information making it to your memory banks. On the other hand, places with lots of room and peace and quiet let you focus solely on the information before you and ensure maximum retention.

Experts recommend that you find your temple of study, a place that you can return to again and again with the sole purpose of studying. Look for a place with the following characteristics: good lighting, good ventilation, a comfortable (but not too comfortable) chair, and a desk large enough to spread out your materials. Some things you want to avoid: a view of activities that you want to be involved in, a telephone, a loud stereo, a TV, and a talkative friend. Pretty much anywhere in your dorm is a bad place to study.

Remember, you’re trying to train your brain to go into study mode every time you enter this space. So, don’t do anything else in your study temple but study. Some good candidates for study temples: libraries, wilderness areas, and study rooms/carrels.

5. **Budget your time.** Adequate study takes time and won’t usually happen accidentally. This means you’ve got to keep a planner, schedule in times to study, and stick to your schedule.

Having a consistent study schedule, like having a consistent study temple, helps your brain get used to studying intensely at certain times. This makes it easier for your brain to absorb maximum amounts of information.

**FAQ 3. What can I do to improve my test-taking?**

Five Test-Taking Strategies for Online University Students From: [www.wgu.edu/blogpost/five-test-taking-strategies-online-university-students](http://www.wgu.edu/blogpost/five-test-taking-strategies-online-university-students)

(Although the majority of your courses in the HCC DMS Program are hybrid or campus-based courses, the testing is done via Canvas. Therefore, the suggestions below can also be applied to on-campus, computer testing.)

Online university exams can be daunting, but there are a few simple strategies you can use to ensure the best score. Take advantage of these tips to create an efficient test-taking process.
1. **Re-read directions and word problems.** This may be an obvious statement, but many students lose test points because they misunderstand the questions. Take time to reread your directions before choosing your answers.

2. **Don’t waste time.** If you are stuck on a test question, keep going and come back to it. Maintaining a steady rhythm is important when taking a test with time constraints. Answering easy questions first allows you to build confidence and get an overview of the test material.

3. **Eliminate answers.** When answering a multiple choice question, one or two answers can usually be eliminated right away. These answers are typically very similar in content or just don’t fit. Disregard the incorrect answers and focus on your remaining choices.

4. **Condense the content.** Test questions can sometimes be long and complicated. If you are having trouble finding the answer with the supplied language, summarize the question in your own words to better relate to the content.

5. **Review, review, review.** Before turning in your test, make sure you review your work by:
   - Verifying your answers are correct
   - Making sure no questions are left blank
   - Linking related questions to ensure your answers are consistent
   - Proofreading essay questions to correct for spelling and grammar

**FAQ 4. How do I seek assistance with coursework?**

1) **Contact your instructor first with questions you have developed from your study.** You can contact your instructor via email, by phone, or in person during the instructor’s office hours or by appointment.
   a. Know all of your instructor’s contact information and office hours (syllabus, Blackboard)
   b. HCC DMS Program instructors are never too busy to answer your questions, but may request to discuss your questions when he/she can give you the time you need
   c. Your instructor may suggest that you review the text and/or course notes to see if you can discern the answer to a question on your own to help you learn how to utilize the resources available (builds valuable workplace skills)
   d. Your instructor may recommend that you visit with a Health Sciences Counselor and/or the Learning Lab for assistance
   e. Your instructor may recommend additional practice time in the DMS Program Skills Lab if you need assistance with a scanning skill

2) **Identify specific areas of lecture material or evaluations and request focused assistance**
   a. Research test questions to see if you can clarify your understanding yourself
   b. Contact your instructor regarding your questions about the course material or test questions
      i. Discuss ways to improve your understanding
   c. Seek assistance from a classmate who understands the area where you are confused; be sure that you both have a strong reference for your conclusions

3) **Complete all posted practice activities such as Self Studies or Soft Chalk lessons**
4) **Self-Assess and request feedback on all clinical skills**
   a. Reflective Practice is "the capacity to reflect on action so as to engage in a process of continuous learning", which, according to the originator of the term, is "one of the defining characteristics of professional practice". [http://en.wikipedia.org/wiki/Reflective_practice](http://en.wikipedia.org/wiki/Reflective_practice)
   b. The act of reflection is seen as a way of promoting the development of autonomous, qualified and self-directed professionals. Engaging in Reflective Practice is associated with the improvement of the quality of care, stimulating personal and professional growth and closing the gap between theory and practice. [http://www.virtualcurriculum.com/N4120/REFLECTION.pdf](http://www.virtualcurriculum.com/N4120/REFLECTION.pdf)
   c. Reflective practice for the Sonography student encompasses thinking about what you did (took notes in class, took a test in class, performed a scan), evaluating your experience (my notes are thorough, I missed several questions on the test, I couldn’t get all the images for the scan but the technical settings were good), and taking the next step (keep taking notes in the same fashion, researching missed questions and requesting review of the test with the instructor, additional scanning practice in the lab and requesting assistance and feedback from the instructor) to improve or maintain skills.

**FAQ 5. How do I know what is expected of me while I am a student in the HCC Program?**

The DMS Program has created numerous documents and publications for your reference and to help you succeed. These are not handbooks and forms to just carry around...read them, know them, and use them!

Check Canvas and your HCC email account daily. If you have a question about a process, rule, regulation, procedure, check the above resources!

**FAQ 6. Why do some Sonography courses make me feel like I am outside my “comfort zone”?**

It is important to have the desire and willingness to learn and stretch past your comfort zone. This stretching will expand your knowledge base and strengthen your critical thinking skills especially if you apply hands on learning. It can be scary to climb out of one’s box “comfort zone” and view the world with new eyes and ears. However, it is exciting!

The HCC DMS Program is designed to prepare you to work as a Sonographer, a challenging career in which you will be required to demonstrate self-starter, organizational, and motivational skills in the workplace. Sonographers do not wait to be told what to do but complete the exams requested at the time of request and/or develop a schedule to accomplish the requested exams during the work day.

HCC student Sonographers develop these skills by:
   - reading the text and reviewing any course materials posted on Canvas prior to each lecture session
   - creating a study schedule/calendar
   - planning extra study time/sessions for exams
   - creating a plan for accomplishing Proficiencies, Benchmarks, and Challenges listed on the Semester Assignment Sheet
FAQ 7. Why are all of these requirements, policies and procedures in place?

The requirements, policies, and procedures of HCC, the Health Sciences Division, and the DMS Program are in place to help you develop workplace skills expected by employers and to ensure that students have access to college, division, and program information and processes while enrolled at HCC. Many of the policies and procedures of HCC Health Sciences and the DMS Program mirror employee rules, regulations, policies, and procedures of health care facilities.

For example, all Sonographers must:
1) Maintain professional ethics and behavior in all settings to ensure high quality patient care and to represent themselves, the profession, and their employer appropriately
   a. HCC DMS Program students have the same requirements and expectations when representing HCC, the DMS Program, the profession, and themselves in all settings
   b. HCC DMS Program students must demonstrate ethical behavior in submitting their assignments

2) Maintain accurate patient records efficiently and in a timely manner
   a. HCC DMS Program students must maintain their documents accurately and in a timely manner
   b. HCC DMS Program students must complete all assignments by the stated due dates

3) Perform the requested exams according to department protocols producing diagnostic quality sonographic exams within the time allotted
   a. HCC DMS Program students must complete assigned Proficiencies, Benchmarks, and Challenges with the goal of producing diagnostic quality sonograms
   b. HCC DMS Program students must complete assigned sonographic exams within the time allotted

4) Submit a Technical Report for the interpreting physician
   a. HCC DMS Program students must complete Technical Reports using HCC DMS forms

Additionally, HCC Health Sciences, DMS Program, and course policies and procedures address the behavior of students while on campus, compliance with Standard Precautions and other infection control procedures, dress codes/professional appearance, HIPAA, and other policies and procedures regarding safety and chain of command. You are held accountable for your actions and/or lack of compliance.

FAQ 8. Why do I need to practice scanning and sonographic exams so many times?

The only places a DMS Program student can practice clinical scanning skills is in the DMS Program Skills Lab and at the off-campus clinical site. Scanning practice at your off-campus clinical site can be limited due to the types of exams performed, the case load, and/or your level of scanning skill. Therefore, your best opportunity to practice scanning skills is in the DMS Program Skills Lab, especially taking advantage of any Open Lab sessions. It takes time and practice to develop psychomotor skills such as sonographic scanning. The more different body types you scan, the more challenging the anatomy is to scan, and the more frequently you scan all serve to build your skills.

You will not acquire appropriate scanning skills (produce diagnostic quality images/video clips_measurements) without factual feedback from your instructors. You should seek feedback from your instructors every time you scan. Your HCC faculty instructors are experienced.
seasoned professionals who have very high standards for the performance of sonographic exams. Your instructors will not tell you what you want to hear, but what you need to hear to improve. Although learning to perform sonographic exams is challenging, you should not fall back on “difficult to scan” when you do not obtain appropriate images, video clips, or measurements.

You should seek to learn the subtleties of scanning, how to acquire appropriate scan windows, how to critically think when you are not able to obtain the desired imaging, and how to recognize when you do have the anatomy demonstrated as clearly as possible! Feedback given on your images/video clips of a patient may not be applicable to the next patient. Learn the appropriate presentation and sonographic appearances of the anatomy you are seeking to evaluate and demonstrate. If you cannot recognize an appropriate image or view, you’ll get a poor image or view and then try to convince your instructor that the image/view is good.

Sonographers are not picture takers, but are professionals who think about “What I am I seeing on the monitor?”, “What does the sonographic appearance mean?”, and “What should I do next?” during the entire scan. Acquiring the above skills is a complex process which requires you to practice, practice, and practice some more! Once you have satisfactorily demonstrated a skill, you then need to practice on as many different body types as possible and continue to improve your skills. Take advantage of any opportunity to practice your scanning skills: Open Labs, between classes, at the clinical site, and during scheduled on-campus clinical lab sessions.

**FAQ 9. Why is there so much to cover in such a short period of time?**

**Why is everything so fast-paced and timed?**

Sonography is a fast-paced medical specialty in which the Sonographer must manage to perform diagnostic quality sonographic exams in sometimes very difficult environments. It is not unusual for a Sonographer to be interrupted multiple times during the sonogram by other medical personnel seeking information, requesting results, asking for another exam to be performed, or for several other reasons. Physicians and other health care personnel give the Sonographer verbal instructions or information related to the sonographic exam or for an exam to be done later in the day.

The Sonographer must think constantly while performing the sonogram, noting whether or not the sonographic appearances/findings are normal or an abnormality is present. The practicing Sonographer must retain new information and skills gained by the ever increasing numbers of scans/sonographic exams that he/she performs so that future patients will benefit from the Sonographer’s experience.

Just like the Sonography workplace, the pace of the DMS Program is “fast” due to the volume of information must be covered and the multiple skills must be learned to ensure graduates are ready for the workplace (entry-level). The DMS Program Student will develop these valuable workplace skills by remaining calm and maintaining focus during the process of learning the psychomotor skill of transducer manipulation and machine operation to produce adequate imaging of the patient. Becoming frustrated, distracted, and overly critical of yourself because you can’t obtain the image you desire is non-productive. Learning to scan and obtain diagnostic images is a process of obtaining this skill which doesn’t happen quickly. Staying focused and calm will improve your learning experience.
In the DMS Program Skills Lab and at the clinical site you will be expected to follow verbal instructions to assist the instructor and/or staff sonographer. You are expected to follow the written information, forms and instructions provided in your course materials. You will need to retain and apply the information from your didactic (lecture) classes to the clinical setting; didactic and clinical educations are linked throughout the length of the program.

**FAQ 10. I thought I was demonstrating appropriate behavior. What's the big deal?**

Behaviors and actions suited to leisure activities, sports, etc. are not appropriate in the classroom and clinical settings. Behaviors that were appropriate in your previous employment setting(s) may not be acceptable for you to demonstrate while you are a HCC DMS Program student and when you become a working Sonographer. Demonstrating a professional demeanor is not necessarily an inherent trait. Your instructors demonstrate professional behaviors for you to emulate and incorporate as you develop yourself into a professional Sonographer.

It is important to your education in Sonography to know when professional behavior is required and when you can be less formal in your interactions with others. You should be aware of what you say, how you say it, when you say it and to whom you say it. You should be aware of how your behavior is received and interpreted by others and how you impact others. If needed, seek assistance from your instructors to improve your professional behavior and interpersonal skills in the classroom and clinical settings. Ask for feedback on your communication and behavioral skills and apply any recommendations given.

**FAQ 11. How are the scanning skills taught?**

Your instructors have several methods for teaching sonographic skills. One teaching method is for the instructor to place his/her hand on your hand while you are scanning to guide you to a better window, image, or view. Another method is to demonstrate a skill/image to a small group and allow each student to try to reproduce the skill or image. Often an instructor will demonstrate the technique for acquiring a view of the anatomy or a particular image to one or two students then allow each student several minutes to scan to obtain the view or image without providing assistance. Then the instructor will review the student’s scanning technique and/or images with the student.

Your instructors will expect you to make decisions early on about the windows you are using to scan, the assessment of the organ/structure you are performing, the image(s) you are acquiring, and the technical settings of the ultrasound unit. These expectations build your workplace skills and ability to adapt and learn new ultrasound machines and applications.
Appendix
This section contains forms are used by the DMS Program to inform students of their standing in their coursework, copies of all completed and signed Clinical Documents or Forms as required by HCC Health Sciences, the DMS Program and the student’s assigned clinical facility and the Accident Forms which are not completed unless utilized by the student or Program.

Appendix 1A

DMS Program Dress Code

There is a close relationship between high standards of dignity and pride and proper grooming. Personal appearance is important. The DMS Program’s dress code is established to teach grooming and hygiene, instill discipline, prevent disruption, avoid safety hazards, and teaches respect for authority. Students should be dressed and groomed in a manner that is clean and neat and that will not be a health or safety hazard to themselves or others. Modesty will be the dominant feature in all clothing. Behavior, attitude and community standards take precedence over individual clothing and hairstyle. **The DMS team is the final authority concerning propriety of clothes, hairstyle, and jewelry.**

The following dress code will be enforced:

**Pants**

- Pants/Jeans/Shorts must be appropriately sized, fitting in the waist, crotch, and leg; not baggy, oversized or excessively tight.
- Leggings, jeggings, yoga pants, or tights are prohibited, except when the over garment is 3 inches above the kneecap or longer.
- No holes, rips or tears exposing under garments or skin.

**Shirts**

- Shirts must be appropriately sized in the shoulders, sleeves, and length; not baggy and revealing or excessively tight
- The shirt/top must cover the midriff at all times (e.g., standing, sitting, stretching and bending)
- Exposure of breast cleavage and/or midriff is prohibited

The following will not be permitted:

- Muscle shirts (includes undershirts)
- Tank tops
- Revealing garments with spaghetti straps
- Crop tops
• Halters
• Midriffs

Shorts or Skirts
• Shorts are permitted and are allowed as follows:
  o No shorter than 3 inches above the top of the knee
  o May not be oversized, wide-legged, full thigh or wind shorts • Dress and skirt length must be no shorter than 3 inches above the top of the kneecap
• Dress and skirt slit must not exceed 3 inches above the top of the kneecap

Shoes
• Shoes must be worn at all times
• No house shoes or slippers
• No shoes with wheels

Hair
• Neatly trimmed facial hair is permitted.
• Must wear hair in such a way that it does not obstruct the view of the eyes
• Must wear or groom hair in such a way that the style is not distracting to the school environment

Miscellaneous
• Clothing items must be free of pictures, emblems and/or writings that are lewd or obscene
• Clothing items must not advertise or depict tobacco products, alcoholic beverages, drugs, violence, vulgarity, gang symbolism, sexual symbolism and/or substance prohibited under policy FNCF (LOCAL)
• Clothing items or style may not be construed as gang related or indicative of gang identification, including bandannas
• No trench coats or dusters
• Attire must be gender appropriate
• All clothing and grooming should conform to standards that may not, in the DMS Program team’s opinion, cause disruption of or interference with normal school operations or safety.

The Following Will Not Be Permitted:
• Tight fitting dresses, pants, or skirt
• See “through” or see “in” garments
• Any clothing that reveals skin or undergarments
• Bathing Suits
• Excessively torn or ripped attire
• Torn or ripped attire that exposes any skin above the knee or below the neck
• Cut-off clothing
• Cleats
• Sunglasses will not be worn during school hours
• Obvious pajamas or sleep wear
• Leather collars or collars intended for use on animals may not be worn on school property
• Gloves on hands
• Decorative facial art
• Shoes with pop out rollers