Diagnostic Medical Sonography Student Handbook 2018-2020
# Diagnostic Medical Sonography Student Handbook

## Table of Contents

### Section I: Gwinnett Technical College Policies and Procedures
(Also Refer to College Catalog online at Gwinnettech.edu)

1.1 Vision  
1.2 Mission and Purpose  
1.3 College Accreditation  
1.4 Graduate Warranty  
1.5 Admissions  
1.6 Advisement  
1.7 Counseling/Life balance Program  
1.8 Disability Services  
1.9 Discrimination and Sexual Harassment  
1.10 Use of Technology  
1.11 Financial Aid  
1.12 Student Complaint Policy  
1.13 Appeals Procedures  
1.14 Health Services  
1.15 Insurance  
1.16 Library  
1.17 Withdrawal and Refunds  
1.18 Career Services  
1.19 Student Life/Student IDs  
1.20 Additional Student Services

### Section II: Diagnostic Medical Sonography Program Information

2.1 Mission Statement  
2.2 Accreditation  
2.3 Administration and Program Faculty  
2.4 Program Description  
2.5 Program Goals  
2.6 Program Outcomes  
2.7 Description of the Profession  
2.8 Professional Memberships  
2.9 SDMS Code of Ethics  
2.10 Technical Standards and Essential Functions  
2.11 Formal Orientation  
2.12 DMS Program Estimated Cost  
2.13 DMS Curriculum Sequence and Hours  
2.14 DMSO Course Descriptions  
2.15 Syllabi and Schedules  
2.16 Program Grading Scale  
2.17 Work Ethic Grades  
2.18 Classrooms and Laboratory  
2.19 Didactic Education  
2.20 Critical Competencies  
2.21 Graduation Requirements  
2.22 Imaging Sciences Advisory Committee Members

### SECTION III: Diagnostic Medical Sonography Policies and Procedures

3.1 Professionalism Score
3.2 Participation
3.3 Work Ethic
3.4 Social Media Policy
3.5 Inclement Weather
3.6 Didactic/Lab/Clinical Deficiency System
3.7 Behavioral Violations
3.8 Academic Dismissal
3.9 Program Dismissal
3.10 Reinstatement
3.11 Emergency leave
3.12 Pregnancy
3.13 Early Graduation
3.14 Student Work Policy
3.15 Communication and Email
3.16 Computer Labs
3.17 Academic Calendar

SECTION IV: DMS Lab Policies and Procedures
4.1 Lab Scan Stations
4.2 Lab Scanning Policies and Procedures
4.3 Pathologic/Atypical Findings
4.4 Pathologic/Atypical Findings OB

SECTION V: Diagnostic Medical Sonography Clinical Education
5.1 Overview
5.2 Clinical Rotation Assignments
5.3 Educational Equity
5.4 Clinical Affiliate Requirements of Student
5.5 Background Check and Drug Screening
5.6 Clinical Participation
5.7 Clinical Hours
5.8 Inclement Weather
5.9 Personal Appearance
5.10 Liability Insurance
5.11 Student Injuries & Communicable Disease
5.12 Clinical Performance
5.13 Conduct in Clinical Education Centers
5.14 Clinical Participation on “Days Off”
5.15 Responsibilities of Student during Clinical Rotation
5.16 Grading for Clinical Courses
5.17 Clinical Journal
5.18 Clinical Notebook
5.19 Challenge of a Clinical Proficiency
5.20 Level V Critical Competencies
5.21 Complete Exam Requirement

SECTION VI: Appendix/Documents
6.1 CAAHEP Standards and Guidelines
6.2 JRCDMS Educational Standards
6.3 Program Critical Competency Chart
6.4 SDMs Model Job Description
6.5 SDMS Clinical Standards for DMS
Dear Diagnostic Medical Sonography Student,

Welcome to the Gwinnett Technical College Diagnostic Medical Sonography Program where you will be instructed in one of the most exciting professions in healthcare! Sonography is a rapidly growing and evolving field with many specialties. Your education will be in Abdominal Sonography including small parts, Breast Sonography, Obstetrical-Gynecological Sonography, basic Vascular Sonography, and basic Musculoskeletal Sonography. You will earn an Associate Degree in Applied Science in Diagnostic Medical Sonography. GTC DMS students are required to take the certifying examinations in Abdominal and OB/GYN specialties offered by the American Registry of Diagnostic Medical Sonographers (ARDMS) during their final semester. Pending your completion and passing vascular benchmark competencies, you may also qualify to take the Vascular Sonography specialty certification exam upon graduation.

Congratulations on your selection into the Diagnostic Medical Sonography Program. Your career path choice comes with many important responsibilities.

1. Success in this program is not simply about being smart but more about a commitment and willingness to work hard. Many students who fail or are dropped from this program were simply not willing, or unable to invest the required amount of time to study effectively or to practice scanning outside of regular class time. Faculty will be covering large volumes of material in a relatively short period of time. Additional research and study will be required outside the classroom depending on your grasping of the concept or for projects. Extensive studying and preparation on your part is a natural component for an education in sonography. To be successful at scanning will require practice outside the regular hours as well. So your successful completion of the GTC DMS program depends mostly upon your willingness and ability to invest enough time to adequately learn the material, % Effort = % Results. As stated many times in the information meeting, be prepared to spend most of your free time studying.

2. Sonography students must be committed to the profession. Being a sonographer can be challenging physically, mentally and emotionally. One must be prepared to perform to the best of his/her ability at all times. Sonographers may go from a patient with a negative outcome to one of the happiest moments in a patient's life and must remain professional.

3. Sonography students must strive for excellence, not perfection. You will be part of a healthcare team. Patients are customers and when health care providers fail in our performance, the patient suffers as well as the business. While our primary goal is to obtain high quality diagnostic images, remember the patient is a human being with fears, anxieties and concerns. You will need to make them as emotionally and physically comfortable as possible before concentrating on acquiring the best diagnostic images possible.

4. One of the statements from the SDMS Code of Ethics and also stated as one of our program outcomes is to "maintain continued competence through lifelong learning, which includes continuing education, acquisition of specialty specific credentials and re-credentialing." Sonography is an ever-changing field of science and requires continuing educational growth. New imaging techniques and
advances in technology require constant learning and maybe additional training. All those who work in the healthcare field should be lifelong learners.

Congratulations again on your selection and we are excited to begin this journey with you. The DMS faculty is glad that you chose Gwinnett Technical College for your sonography education. We look forward to sharing our knowledge, experience, and enthusiasm for the field of sonography and life-long pursuit of learning. We are here for our students and make every effort to help them succeed. We continue to support you as a graduate of this program.

Sincerely and Respectfully,

Your GTC DMS Faculty

Kim Strong
Program Director

Kara Caldwell Miranda Palmer Jessica Sudderth
Clinical Coordinator DMS Faculty DMS Faculty
SECTION I. GWINNETT TECHNICAL COLLEGE INFORMATION

1.1 Vision
Teach every individual; serve every business.

1.2 Mission & Purpose
Advance the knowledge of individuals to enrich lives and develop opportunities. Gwinnett Tech, a unit of the Technical College System of Georgia, is a public two-year college that serves the communities of Gwinnett and North Fulton by offering campus and distance learning for associate degrees, diplomas and certificates in credit programs as well as for adult and continuing education training.

Values
What we have:
Integrity: We say what we mean, we treat people with respect and we honor our promises.
Commitment: We are devoted to our job, and accountable to our students, our peers and our leaders.
Excellence: We strive to excel in all we do.

What we provide:
Customer Focus: We believe that the students and businesses we serve are our customers and we strive to consistently meet or exceed their expectations.
Adaptability: We embrace diversity and are resilient in our goal to serve an all-inclusive audience.
Leadership: We recognize our duty to lead our students and serve our community.
Lifelong Learning: We believe education to be the paramount foundation for continuing success.
Innovation: We foster an environment that nurtures creativity and emerging technologies.

1.3 College Accreditation
Gwinnett Technical College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Gwinnett Technical College.
This is the same accreditation shared by many other colleges and universities throughout the region, and it ensures that our programs and curriculum meet the quality standards that you and today's businesses demand.

1.4 Graduate Warranty
The Technical College System of Georgia has developed curriculum standards with the direct involvement of business and industry. These standards serve as the industry-validated specification for each occupational program. These standards allow Georgia’s system of technical colleges, of which Gwinnett Technical College is one, to offer their business partners the following guarantee.
“If one of our graduates, who was educated under a standard program, and his/her employer agree that the employee is deficient in one or more competencies as defined in the standards, the technical college will retrain that employee at no instructional cost to employee or employer.”

This guarantee applies to any graduate of our technical college who is employed in the field of his/her training. It is in effect for a period of two years after graduation. For questions involving the guarantee, please contact the Academic Affairs Office at 770-962-7580, ext. 6299.
1.5 Admissions
See “Admission Procedures” section of the GTC Catalog, found under the “Academics” tab.
http://www.gwinnettech.edu

1.6 Advisement
While in the Diagnostic Medical Sonography Program, students are advised by the Program Director. The students should utilize DegreeWorks to access their advisement plan. Although advisors assist students in academic planning, each student is responsible for meeting all program pre-requisite and graduation requirements.

1.7 Counseling Services
Counseling at GTC is a mental health resource which provides free, personal and confidential counseling in a safe and supportive environment. The purpose of this resource is to help you acquire the skills, attitudes, abilities and insights that will enable you to address the all-too-prevalent stress and conflicts that may distract you from achieving your full potential. Student counseling services are available to all currently enrolled GTC students 18 or older in certificate, diploma or degree programs on first-come first-serve basis. For appointment, contact licensed student counselors Juanita Bentley at 678-226-6486 or Melissa Massey at 678-226-6874.

There are also resources in the local area. Please contact United Way at 211 for information on resources concerning alcohol abuse, drug abuse, domestic violence, sexual abuse, and general mental health issues. Students are also encouraged to contact Gwinnett Helpline at 770-995-3339 during office hours. Gwinnett Helpline is open Monday through Friday from 8:00 a.m. to 5:00 p.m. Students and their families will assume full responsibility for such services.

1.8 Disability Services
Gwinnett Tech is an equal opportunity institution that admits otherwise qualified students with no regard for documented disabilities. Institutional policies comply with the regulations set forth by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

Students are expected to identify themselves in a timely manner when an accommodation is needed and to provide appropriate documentation as requested. Gwinnett Tech will assist students with reasonable academic accommodations based on this documentation. However, these accommodations will not compromise academic standards in the classroom.

Students are responsible for notifying the Office of Disability Services which is Student Information 62 located in building 100, room 321, of the Lawrenceville campus. Inquiries and requests for special services, as well as concerns and complaints regarding such services, should be directed to the Special Populations Coordinator at 678-226-6691 or lrichardson@gwinnettech.edu.

1.9 Discrimination and Sexual Harassment
The Technical College System of Georgia and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of a military member or citizenship status (except in those special circumstances permitted or mandated by law). This nondiscrimination policy encompasses the operation of all technical college-administered programs, programs financed by the federal government including any Workforce Innovation and Opportunity Act of Student Information 63 1998 (WIOA) Title I financed programs, educational
programs and activities, including admissions, scholarships and loans, student life, and athletics. It also encompasses the recruitment and employment of personnel and contracting for goods and services.

The Technical College System and Technical Colleges shall promote the realization of equal opportunity through a positive continuing program of specific practices designed to ensure the full realization of equal opportunity. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Lisa Richardson, Title IX, Equity, and Section 504 Coordinator, 678-226-6691, lrichardson@gwinnettech.edu, Gwinnett Technical College, 5150 Sugarloaf Parkway, Lawrenceville, GA 30043-5702.

1.10 Use of Technology
a. Damage and Destruction: Destruction of or harm to equipment, software, or data belonging to the technical college or to others is considered unacceptable usage. This may include altering, downloading, or installing software on technical college computers, tampering with computer hardware or software configuration, improper access to the technical college’s network, and disconnection of technical college computers or devices. Student Information 88

b. Electronic Devices: Unless otherwise permitted by technical college officials, the technical college prohibits use of electronic devices in classrooms, labs, and other instructional, event, or affiliated facilities on technical college premises. Such devices include, but are not limited to cell phones, walkie talkies, cameras, gaming devices, and other electronic devices, which may cause unnecessary disruption to the teaching/learning process on campus. The technical college also prohibits attaching personal electronic devices to college computers under any circumstances.

c. Harassment: The technical college prohibits the use of computer technology to harass another student or technical college official with obscene, harassing or intimidating messages, communications, jokes, or material.

d. Unacceptable Use: The technical college prohibits the use of computing facilities to interfere with the work of another student, faculty member or technical college official. This includes the unauthorized use of another individual’s identification and password. Gwinnett Technical College prohibits any additional violation to the college’s Acceptable Computer and Internet Use Policy.

1.11 Financial Aid
Financial Aid
The Financial Aid Office follows the guidelines for Verification of Lawful Presence in the United States policy. For further information please review Verification of Lawful Presence found within the General Admissions Procedures section of the catalog.

Gwinnett Tech Financial Aid Office offers federal, state, and institutional financial aid to eligible students to assist with the cost of attending school. Financial aid may take the form of:
1. Federal Financial Aid
   a. Federal Pell Grant
   b. Federal Supplemental Educational Opportunity Grant (SEOG)
   c. Federal Work-Study (FWS)
   d. Federal Subsidized and Unsubsidized Direct Stafford Loans
2. State Financial Aid
a. Helping Outstanding Pupils Educationally (HOPE)
   i. HOPE Grant (certificate/diploma programs only)
   ii. Hope Scholarship (associate degree programs only)
   iii. General Educational Development (GED) Voucher
b. Zell Miller Grant (certificate/diploma programs only)
c. Zell Miller Scholarship
d. Move on When Ready (MOWR)
e. Helping Educate Reservist and their Offspring (HERO) Scholarship
f. Georgia Access Student Loans (SAL/SALT)
g. Strategic Workforce Investment Scholarships (SWIG)

3. Institutional and Private Scholarships
4. Veterans Educational Benefits

### 1.12 Student Complaint Policy

It is the policy of Gwinnett Technical College, a unit of the Technical College System of Georgia, to maintain a grievance process available to all staff and students that provides an open and meaningful forum for grievances, the resolution of grievances, and is subject to clear guidelines. This procedure does not address grievances related to the unlawful harassment, discrimination and/or retaliation for reporting harassment/discrimination against students. Those complaints are handled by the Unlawful Harassment and Discrimination of Students procedure that can be found in the college catalog.

The Student Complaint Policy is established to resolve difficulties or problems encountered in college-related activities. Complaints are taken seriously and therefore must be of a compelling, substantive, and verifiable nature. Complaints about a decision made by a member of the faculty or staff may only be filed by students who have been directly, adversely, and substantially affected by the decision. Repeated filings of the same complaint, filings of a frivolous nature, or capricious complaints made against school personnel and policies will be considered an abuse of the student complaint process and will be dismissed.

The Student Complaint Policy applies to matters that may include: classroom learning environment, course content, access to classes, student advisement, and quality of services to students. The policy also applies to matters concerning services provided by Student Affairs and Administrative Offices. Student Complaint forms should be sent to studentcomplaints@gwinnetttech.edu.

The following forms of complaints will be referred to the appropriate administrator:

- Academic Grade Appeals – Academic Affairs Office
- Student and Administrative Services (including but not limited to: admissions, financial aid, registrar, records, assessment, FERPA, etc.) – Vice President of Student Affairs
- Harassment, Sexual Harassment and Violence, Discrimination – Equity Coordinator (Coordinator of Special Populations)
- Student Code of Conduct Violations – Vice President Student Affairs

### 1.13 Appeals Procedures

See "Grade Appeals" section of the GTC Catalog. This process may be used for clinical grievances/appeals as well as academic appeals. [http://www.gwinnetttech.edu](http://www.gwinnetttech.edu)
1.14 Health Services
As a non-resident school, Gwinnett Tech expects students to secure medical services through a private physician. In case of a serious accident or illness, Gwinnett Tech will refer a student to the nearest medical facility for emergency care. It is understood that the student, parent, or guardian will assume full responsibility for the cost of such emergency care at the hospital, including ambulance charges if, in the opinion of school officials, such service is necessary.

1.15 Insurance
Gwinnett Tech does not provide student medical insurance. Enrollment as a fulltime student includes a $4.00 fee that provides student accident insurance. Student liability insurance is required for students enrolled in certain health and applied technology programs. In these instances, students will be notified regarding premiums and payment. The cost is $15 annually and is to be paid in the business office.

1.16 Library
The Gwinnett Tech Library partners with the College to advance learning and workforce readiness. The library engages students, faculty and staff with ready access to relevant information resources and services.

The Gwinnett Tech Library:
- Engages on-campus and distance learners
- Teaches essential research skills to support the curriculum and self-directed lifelong education
- Conducts personalized research assistance
- Designs and delivers customized research instruction
- Provides quality resources made conveniently available by research experts through LibGuides, LibAnswers, GALILEO, and the Library Catalog
- Extends access to resources beyond the collection through referrals and Interlibrary Loan
- Provides space for quiet study and group projects, as well as comfortable areas for leisure reading and conversation
- Promotes a learning atmosphere in a safe, comfortable environment. Library staff will address inappropriate conduct or behaviors in accordance with acceptable use guidelines and policies
- Ensures that library customers have ready access to help from a team of friendly, service-oriented professional librarians and staff

Location, Contact Information & Hours
- Lawrenceville Campus: building 100, room 402
- Telephone: 770-962-7580 (extension 6388 or 6270)

1.17 Withdrawal and Refunds
Each semester, students’ class schedules become official upon payment of required fees (either by the student or by award of financial aid). Students who drop a class during the drop/add period (on or before the third day of the semester for a full semester class, or on or before the second day of the term for a term C class) will be removed from the class roll, and the course will not show on the student’s academic record. A 100 percent refund is issued for classes dropped during the drop/add period of the term.
Thereafter, students may officially withdraw from a course without academic penalty by the designated withdrawal date for the semester and receive a “W” grade for the course. The “W” grade is not computed in the student’s grade point average, but does count in terms of financial aid eligibility. To officially withdraw from a course, students can withdraw online or meet with an Enrollment Advisor in the Enrollment Support Center to fill out the appropriate forms. Students who must withdraw from all classes will have to do so in person at the Enrollment Support Center. There is no refund for classes withdrawn after the drop/add period of the term.

Students who withdraw after the designated withdrawal date for the semester will receive a “WF” grade, unless a “W” grade is approved by the Academic Affairs Office through the appeal process for hardship withdrawal. Students must follow the withdrawal procedure as described in the paragraph above. A “WF” grade is computed in the student’s grade point average as a failing grade and counts toward the student’s financial aid eligibility.

If you are awarded financial aid, please refer to the Return to Title IV Financial Aid Withdrawal Policy section of the catalog to determine the impact withdrawing from courses may have on your financial aid.

1.18 Career Services
The Career Services Center (CSC) provides a comprehensive assortment of job assistance services and resources to students, prospective students, and alumni. These services are designed to integrate career exploration and planning into the student’s academic studies that prepares them for advancement into their respective fields of study upon graduation. Students develop extensive knowledge of job-search strategies, as well as a host of skills important to be successful in their career. A full range of student-focused programs and services are offered through the center and online, including individual and group career counseling, interest and aptitude assessments, mock interviews and resume preparation. The center is located in building 100, room 604. Office hours are from 8:00 a.m. to 5:00 p.m. on Monday through Thursday, and from 8:00 a.m. to 4:00 p.m. on Friday. Students may visit the center or call 678-226-6252 to schedule an appointment with a career professional.

1.19 Student Life Center/Student IDs
The Student Life Center in building 100 of the Lawrenceville campus welcomes all students with current student identification badges. The Student Life Center is a place for special events and meetings for students. It is also a place to relax, meet other students, and learn about planned activities, student organizations, and how to get involved on campus. Student IDs can be purchased in the bookstore after registering for classes. Student Life’s mission is to provide a world of opportunities to enrich the GTC experience. Opportunities available for students include workshops, seminars, fieldtrips, conferences, competitions, community projects, and school-wide events. Students may contact the Student Life Director for additional information at 678-226-6341.

Note: All students are required to have current Student IDs in their possession while on campus. Student IDs should be visible in the Student Life Center and all computer labs at all times and presented upon request by any college employee.

1.20 Additional Student Services
Visit http://www.gwinnettech.edu/students/ to find information on all student resources found at Gwinnet Technical College.
SECTION II. DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM INFORMATION

2.1 Mission Statement
The mission of Gwinnett Technical College Diagnostic Medical Sonography Program is to offer a high quality and comprehensive didactic and clinical education in general sonography that fulfills the requirements for credentialing through the American Registry of Diagnostic Medical Sonographers (ARDMS). The faculty and clinical instructors will do this by providing students the cognitive knowledge, psychomotor skills (clinical and technical skills), and applicable affective behaviors to safely and competently perform diagnostic sonographic exams along with the experience and work ethic required to be principal members of the health care team.

2.2 Accreditation
The GTC Diagnostic Medical Sonography Program is accredited through CAAHEP upon the recommendation of the JRC-DMS as of March 2014.

CAAHEP
Commission on Accreditation of Allied Health Education Programs
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33763
Phone: 727-210-2350
Fax: 727-210-2354
CAAHEP.ORG

JRC-DMS
Joint Review Commission on Education in Diagnostic Medical Sonography (JRC-DMS)
6021 University Boulevard Suite 500
Ellicott City, MD 21043
JRCDMS.ORG

2.3 GTC Administration and DMS Program Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Glen Cannon</td>
<td>President Gwinnett Technical College</td>
<td></td>
</tr>
<tr>
<td>Rebecca Alexander</td>
<td>Vice President of Academic Affairs</td>
<td></td>
</tr>
<tr>
<td>Jim Sass, MEd, CIIP RT(R)(M)(QM)</td>
<td>Dean, Health Sciences</td>
<td></td>
</tr>
<tr>
<td>Kim Strong, BA, AS, RDMS, RVT</td>
<td>Program Director</td>
<td>Building 200 Office #258</td>
</tr>
<tr>
<td></td>
<td></td>
<td>678-226-6701</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:kstrong@gwinnetttech.edu">kstrong@gwinnetttech.edu</a></td>
</tr>
<tr>
<td>Kara Caldwell, BA, AS, RDMS</td>
<td>Clinical Coordinator</td>
<td>706-614-5549</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:kcaldwell@gwinnetttech.edu">kcaldwell@gwinnetttech.edu</a></td>
</tr>
</tbody>
</table>

Adjunct Faculty
Miranda Palmer, RDMS, RVT
Jessica Sudderth, RDMS, RVT
Building 200 Office #J1.243
2.4 Program Description

The Diagnostic Medical Sonography curriculum is designed to educate students toward certification as entry level sonographers through the use of classroom instruction, lab performance and practical application. The program integrates a professional education component and a general college core. These components will enable the student to reach their advanced goals, and start them toward advanced college degrees if desired.

The GTC DMS program follows the Technical College System of Georgia’s curriculum for Diagnostic Medical Sonography. This curriculum follows the National Education Curriculum as published by JRCDSMS (Joint Review Committee on Education in Diagnostic Medical Sonography). Didactic education is concurrent with lab and clinical experiences. The GTC DMS program is a full time, 20 month program, lasting 5 consecutive semesters. Course offerings are on Monday-Friday, day classes only. The clinical component may require second shift hours. Graduates earn an Associate Degree of Applied Science in Diagnostic Medical Sonography.

The program is a general sonography concentration program which means the education emphasis is on abdomen, small parts, breast, obstetric and gynecological sonographic imaging techniques and pathology. Students also gain a thorough understanding of sonographic principles and instrumentation (SPI). They are required to pass the ARDMS (American Registry of Diagnostic Medical Sonography) SPI registry examination and attempt the ARDMS OB/GYN and Abdomen specialty examinations to meet program graduation requirements.

To earn the title of Registered Diagnostic Medical Sonographer, candidates must pass the ARDMS SPI registry examination along with a specialty examination (Abdomen or OB/GYN). The GTC DMS Program is CAAHEP accredited; therefore, students are eligible to take the ARDMS specialty exams up to 60 days prior to graduation.

The Diagnostic Medical Sonographer must be able to work in a cooperative setting with other professionals to provide quality health care to the total human being. Education is an ever-continuing process and as practicing professionals, one must continually improve skills and advance knowledge. Therefore, a professional education should include a combination of intellectual growth and self-development. A technical education which interacts with basic sciences, general studies, and the development of interpersonal relations will produce a technologist who will be able to function as both a member of society and of the profession.

2.5 Program Goals

The Diagnostic Medical Sonography Program, in concert with the mission and philosophy of Gwinnett Technical College, is committed to provide a quality and comprehensive education in general sonography. Through didactic information, educational resources, and a variety of clinical experiences, the program is designed to develop competent, responsible, and independent sonography professionals. The program's mission is also supported by a dedicated team of experienced faculty, sonographers, and physicians who encourage and model life-long learning in the field.

The GTC DMS program goals are derived from the expectations of the communities of interest served by GTC, namely students, graduates, faculty, the college, employers, potential patients, and the sonography profession. The goal of Gwinnett Technical College’s Diagnostic Medical Sonography program is to prepare competent entry-level general sonographers in the cognitive (knowledge),
psychomotor (skills), and affective (behavior) learning domains.

Cognitive:
- Obtain, review, and integrate pertinent patient history and supporting clinical data to facilitate optimum diagnostic results for each client.
- Demonstrate critical thinking skills while performing sonographic examinations to obtain the highest level diagnostic images.

Psychomotor:
- Perform appropriate sonographic procedures and record anatomic, pathologic, and or physiologic data for interpretation by a physician.
- Record, analyze and process diagnostic date and other important observations made during the sonographic procedure for presentation to the interpreting physician as evidenced by critical thinking, technical abilities, and perseverance.
- Maintain optimal function of sonographic equipment.
- Utilize patient care and comfort skills.

Affective:
- Demonstrate appropriate communication skills with patients, colleagues, and others involved in the care of the client; act in a professional and ethical manner.
- Provide the patient and the public, education related to general sonography and/or other diagnostic vascular techniques and promote principles of good health.
- Exercise discretion and judgment in the performance of sonographic and/or other diagnostic services.

2.6 Program Outcomes

Achievement of the stated program goals is assessed through various aspects that include but are not limited to the Annual Report mandated by the Joint Review Committee in Diagnostic Medical Sonography, graduate surveys, employer surveys, advisory committee surveys, ARDMS SPI registry exam pass rates, ARDMS exam pass rates in Abdomen, OB/GYN, or Breast and employment statistics. The Imaging Sciences Advisory Committee also reviews the above information and makes recommendations to the program faculty concerning necessary changes in the curriculum if the outcomes are not satisfactory. The program faculty is in constant contact with clinical affiliate administrators and clinical instructors for on-going assessment of course content and student clinical performance. Annual evaluations of the GTC DMS program are completed by the program clinical instructors to assure proper content from the clinical perspective is being taught with accuracy. Continuous program assessment is done by the DMS program faculty through end of course surveys and GTC faculty evaluations.

Upon graduation from the Gwinnett Technical College Diagnostic Medical Sonography Program:
- Graduates will be clinically competent by possessing entry-level knowledge and skills gained through successful completion of the program.
- Graduates will function as independent productive sonographers as part of the imaging team.
- Graduates will have acceptable work habits and attributes to fill needs of the health care community.
- Graduates will have skills needed to problem solve in their work environment and careers.
- Graduates will utilize ergonomically correct scanning practices.
- Graduates will consistently be aware of potential ultrasound bioeffects and continuously implement ALARA standards.
• Graduates will have the desire for life-long learning and self-growth.
• Graduates will have attempted to pass the ARDMS certification examination in Abdomen and OB/GYN.
• Program will have an average student completion rate of not less than 80%.
• Graduates will find jobs within six months of graduation.

2.7 Description of the Profession
The Diagnostic Medical Sonographer functions as a healthcare provider who, working under the delegated authority of the supervising physician, serves as a medical imaging professional providing clinically relevant information to assist the physician with the diagnosis and treatment of patients. The Staff Sonographer role and responsibilities include providing diagnostic medical sonography services and its various clinical specialties. The Staff Sonographer activities are performed consistent with their education and training, and in accordance with facility policies and procedures and applicable professional standards. (See Appendix for model job description from the Society of Diagnostic Medical Sonography.)

2.8 Professional Memberships
ARDMS: American Registry for Diagnostic Medical Sonographers
The American Registry for Diagnostic Medical Sonography (ARDMS) is an independent, not-for-profit organization founded in 1975 that administers examinations and awards the following credentials:
  • RDMS – Registered Diagnostic Medical Sonographer
  • RDCS – Registered Diagnostic Cardiac Sonographer
  • RVT – Registered Vascular Technologist
  • RPVI – Registered Physician in Vascular Interpretation
  • RMSK - Registered in Musculoskeletal sonography

SDMS: Society for Diagnostic Medical Sonographers
The Society of Diagnostic Medical Sonography was founded in 1970 to promote, advance, and educate its members and the medical community in the science of Diagnostic Medical Sonography. The Society achieves its purpose by:
  • seeking the cooperation of similar organizations
  • initiating and overseeing educational programs
  • stimulating and encouraging research; encouraging presentation and publication of scientific papers
  • collecting and disseminating information pertinent to the membership
  • publishing a scientific journal and a newsletter
  • and reviewing and establishing policies regarding the professional status, legislative activity, and welfare of its members.

A typical member of the Society of Diagnostic Medical Sonography is anyone participating in or supporting the practice of diagnostic medical sonography.

Student Membership
Students are the future of sonography. The GTC DMS program requires that our students join under this category. They receive special student discounts plus all the benefits of membership except the right to vote and hold office. Membership gives you the information and tools to help meet your career
goals and allows you to become proactive in SDMS. SDMS encourages and empowers students to become active individuals in the sonography profession. Student members receive The Journal of Diagnostic Medical Sonography. There are many ways a student can participate in SDMS:

- Attend the SDMS Annual Conference with special student discounted pricing
- Learn and participate in the Student Conclave
- Enter SDMS Awards and Competitions
- Student Poster Exhibit Competition
- W. Frederick Sample Student Excellence Award
- Contribute to the Journal of Diagnostic Medical Sonography (JDMS)
- Network with other students and members through the SDMS Discussion Forums
- Participate in SDMS committees

To qualify for this membership category you must be enrolled in a diagnostic medical sonography program. A letter from your program director verifying your student status and anticipated graduation date is required before your membership application can be processed. Dues $40

Membership in the Atlanta Ultrasound Society is voluntary but students are highly encouraged to join and attend the informative seminars twice a year.

Membership in the AIUM: American Institute of Ultrasound in Medicine is recommended but voluntary.

2.9 SDMS Code of Ethics
This program adheres to the premise that a code of ethics should be used to help define the role of Diagnostic Medical Sonographer and student. The Society of Diagnostic Medical Sonography Code of Ethics serves as a guide by which sonographers may evaluate their professional conduct as it relates to patients, colleagues, and other members of the health care team. Its intent is to assist the sonographer in maintaining a high level of ethical conduct and to better serve or improve the health care system.

Code of Ethics for the Profession of Diagnostic Medical Sonography
Approved by SDMS Board of Directors, December 6, 2006

PREAMBLE
The goal of this code of ethics is to promote excellence in patient care by fostering responsibility and accountability among diagnostic medical sonographers. In so doing, the integrity of the profession of diagnostic medical sonography will be maintained.

OBJECTIVES
1. To create and encourage an environment where professional and ethical issues are discussed and addressed.
2. To help the individual diagnostic medical sonographer identify ethical issues.
3. To provide guidelines for individual diagnostic medical sonographers regarding ethical behavior.

PRINCIPLES

Principle I: In order to promote patient well-being, the diagnostic medical sonographer shall:
A. Provide information to the patient about the purpose of the sonography procedure and respond to the patient's questions and concerns.
B. Respect the patient's autonomy and the right to refuse the procedure.
C. Recognize the patient's individuality and provide care in a non-judgmental and non-discriminatory manner.
D. Promote the privacy, dignity and comfort of the patient by thoroughly explaining the examination, patient positioning and implementing proper draping techniques.
E. Maintain confidentiality of acquired patient information, and follow national patient privacy regulations as required by the "Health Insurance Portability and Accountability Act of 1996 (HIPAA)."
F. Promote patient safety during the provision of sonography procedures and while the patient is in the care of the diagnostic medical sonographer.

Principle II: To promote the highest level of competent practice, diagnostic medical sonographers shall:
A. Obtain appropriate diagnostic medical sonography education and clinical skills to ensure competence.
B. Achieve and maintain specialty specific sonography credentials. Sonography credentials must be awarded by a national sonography credentialing body that is accredited by a national organization which accredits credentialing bodies, i.e., the National Commission for Certifying Agencies (NCCA); [http://www.ncca.org/ncca/ncca.htm](http://www.ncca.org/ncca/ncca.htm) or the International Organization for Standardization (ISO); [http://www.iso.org/iso/en/ISOOnline.frontpage](http://www.iso.org/iso/en/ISOOnline.frontpage).
C. Uphold professional standards by adhering to defined technical protocols and diagnostic criteria established by peer review.
D. Acknowledge personal and legal limits, practice within the defined scope of practice, and assume responsibility for his/her actions.
E. Maintain continued competence through lifelong learning, which includes continuing education, acquisition of specialty specific credentials and re-credentialing.
F. Perform medically indicated ultrasound studies, ordered by a licensed physician or their designated health care provider.
G. Protect patients and/or study subjects by adhering to oversight and approval of investigational procedures, including documented informed consent.
H. Refrain from the use of any substances that may alter judgment or skill and thereby compromise patient care.
I. Be accountable and participate in regular assessment and review of equipment, procedures, protocols, and results. This can be accomplished through facility accreditation.

Principle III: To promote professional integrity and public trust, the diagnostic medical sonographer shall:
A. Be truthful and promote appropriate communications with patients and colleagues.
B. Respect the rights of patients, colleagues and yourself.
C. Avoid conflicts of interest and situations that exploit others or misrepresent information.
D. Accurately represent his/her experience, education and credentialing.
E. Promote equitable access to care.
F. Collaborate with professional colleagues to create an environment that promotes communication and respect.
G. Communicate and collaborate with others to promote ethical practice.
H. Engage in ethical billing practices.
I. Engage only in legal arrangements in the medical industry.
J. Report deviations from the Code of Ethics to institutional leadership for internal sanctions, local intervention and/or criminal prosecution. The Code of Ethics can serve as a valuable tool to develop local policies and procedures.

2.10 Technical Standards and Essential Functions
Sonography students must perceive and integrate information from a variety of sources. The sources include oral instruction, printed material, visual media, and live demonstrations. Students must participate in classroom discussion, present oral reports and successfully pass written and computer based examinations which include the interpretation of sonographic images. Completion of these tasks requires cognitive skills. In addition to the cognitive skills necessary in the classroom setting, students must demonstrate fine psychomotor skills to manipulate sonographic transducers, and sonographic equipment. Students must also demonstrate general professional behaviors such as team cooperation and the ability to communicate with others. Clinical education courses associated the sonography programs involve the application of knowledge and skills learned in the classroom and laboratory setting to actual patients in the clinical environment. Students must demonstrate intellectual skills by relating in a respectful and caring attitude toward all patients.

The following outlines the technical standards and essential functions a sonography student must be able to perform for upon admission into the GTC DMS program. The sonography student must maintain these standards as he/she progresses through the program in order to continue with their didactic and clinical education.

Communication and Observation:
1. Communicate in a clear and concise manner in the English language to people in various departments.
2. Read and apply appropriate instructions in charts, notes, and records.
3. Comprehend and apply clinical instructions given from departmental personnel.
4. Utilize keyboard for inputting clinical data into console, computers, and charts.
5. Visually monitor patients and review images in dimmed light.
6. Ability to hear within normal limits (aided or non-aided).
7. Ability to visualize colors.
8. Visual acuity of 20/60 in at least one eye (glasses or contacts permitted).

Physical Capabilities:
1. Move immobile patients from stretcher to exam table using proper ergonomics with assistance from department personnel.
2. Push wheel chairs, stretchers and perform CPR.
3. Move loads of up to 50 pounds several times a day.
4. Reach up to six (6) feet off the floor.
5. Reach to position and roll patients side to side when necessary.
6. Maneuver ultrasound system throughout the clinical facility as needed for bedside exams.
7. Standing most of an 8 hour day.
8. Walking 4-6 hours a day.
10. Ability to work long and/or irregular hours.

Intellectual and Communication Skills:
1. Ability to work in a noisy environment with many interruptions.
2. Ability to remember and recall a large amount of information.
3. Ability to accurately read and transcribe illegible handwriting or to know when to verify.
4. Ability to assess patient and other situations rapidly, determine the course of action, delegate activities to co-workers, and/or respond as appropriate.
5. Ability to explain procedures and patient preparations clearly, verbally or written.
6. Ability to calmly and politely cope in stressful situations, in emergency patient situations, or situations with other staff members.
7. Ability to assess work demands; organize and perform or delegate as needed.
8. Ability to effectively communicate in the medical environment with other health care professionals and patients/family members.
9. Ability to apply critical thinking skills when obtaining a clinical history from the patient and correlating that information with exam findings accurately.
10. Ability to maintain patient confidentiality at all times (HIPAA).
11. Demonstrate respect for a diverse patient population.

**Technical Skills:**
1. Adequately perform and continually perfect sonographic imaging techniques.
2. Understand and manipulate the ultrasound system’s knobology.
3. Perform using fine motor skills to manipulate the transducer and equipment.
4. Perform all procedures and protocols without critical errors.
5. Work in the dark.
6. Recognize and interpret patient body language.
7. Distinguish and interpret Doppler sounds produced by sonography equipment.

### 2.11 Formal Orientation
Approximately one month prior to the start of the Diagnostic Medical Sonography program, the selected students are required to attend the Diagnostic Medical Sonography Orientation. Orientation includes, but is not limited to, a review of the GTC Student Handbook, Diagnostic Medical Sonography Student Handbook, registration information, completion of a New Student Information and pertinent assessments, review of health history and physical exam forms, CPR/BLS instructions, and textbook purchase requirements. Students will have lunch will the current DMS class for a question and answer session.

### 2.12 DMS Program Estimated Cost

<table>
<thead>
<tr>
<th></th>
<th>Estimated Cost</th>
<th>Additional Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-requisite course costs</td>
<td>$4000</td>
<td></td>
</tr>
<tr>
<td>GTC Application Fee</td>
<td>$ 25</td>
<td>$ 4025</td>
</tr>
</tbody>
</table>

**DMS Program Expenses**

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Estimated Cost</th>
<th>Additional Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Tuition</td>
<td>$1487</td>
<td>$3025</td>
</tr>
<tr>
<td>Liability Insurance</td>
<td>$ 15</td>
<td></td>
</tr>
<tr>
<td>Supply Fees</td>
<td>$ 200</td>
<td></td>
</tr>
<tr>
<td>Background/Drug Screen</td>
<td>$ 90</td>
<td></td>
</tr>
<tr>
<td>CPR/BLS</td>
<td>$ 5</td>
<td></td>
</tr>
<tr>
<td>Scrubs/Uniforms/shoes</td>
<td>$ 150</td>
<td></td>
</tr>
<tr>
<td>Textbooks</td>
<td>$ 550</td>
<td></td>
</tr>
<tr>
<td>SDMS membership</td>
<td>$ 40</td>
<td></td>
</tr>
<tr>
<td>Immunizations as required</td>
<td>$ 400</td>
<td></td>
</tr>
<tr>
<td>Mycinicalhours</td>
<td>$ 85</td>
<td></td>
</tr>
<tr>
<td>Semester 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Total Tuition</td>
<td>$1309</td>
<td>$1459</td>
</tr>
<tr>
<td>Supply Fees</td>
<td>$150</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 3</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Tuition</td>
<td>$597</td>
<td>$1037</td>
<td>Transportation, supplies</td>
</tr>
<tr>
<td>Supply Fees</td>
<td>$150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Textbooks</td>
<td>$90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARDMS SPI Registry fee</td>
<td>$200</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 4</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Tuition</td>
<td>$1487</td>
<td>$1712</td>
<td>Transportation, supplies</td>
</tr>
<tr>
<td>Supply Fees</td>
<td>$150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liability Insurance</td>
<td>$15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TB test repeat</td>
<td>$20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDMS membership</td>
<td>$40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 5</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Tuition</td>
<td>$1398</td>
<td>$2258</td>
<td>Transportation, supplies</td>
</tr>
<tr>
<td>Supply Fee</td>
<td>$100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Textbooks</td>
<td>$180</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registry</td>
<td>$500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduation fees</td>
<td>$80</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total Estimate Cost of DMS Program | $9491 |
| Total Estimated Cost of AS degree DMS | $13,516 |
2.13 DMS Curriculum Sequence

<table>
<thead>
<tr>
<th>Semester 1:</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO 1010 Foundations of Sonography</td>
<td>3</td>
</tr>
<tr>
<td>DMSO 1020 Sectional Anatomy and Normal Sonographic Appearance</td>
<td>3</td>
</tr>
<tr>
<td>DMSO 1040 Sonographic Physics and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>DMSO 1060 DMS Clinical Sonography I</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO 1050 Abdominal Sonography I</td>
<td>3</td>
</tr>
<tr>
<td>DMSO 1070 Pelvic Sonography and First Trimester Obstetrics</td>
<td>2</td>
</tr>
<tr>
<td>DMSO 1101 Clinical Sonography II Part A</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 3:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO 1080 Sonographic Physics and Instrumentation Registry Review</td>
<td>1</td>
</tr>
<tr>
<td>DMSO 1090 Introduction to Vascular Sonography</td>
<td>1</td>
</tr>
<tr>
<td>DMSO 1102 Clinical Sonography II Part B</td>
<td>1</td>
</tr>
<tr>
<td>DMSO 2031 Clinical Sonography III Part A</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 4:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO 2020 Specialized Sonographic Procedures</td>
<td>2</td>
</tr>
<tr>
<td>DMSO 2010 OB Second and Third Trimesters</td>
<td>3</td>
</tr>
<tr>
<td>DMSO 2032 Clinical Sonography III Part B</td>
<td>7</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 5:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO 2040 Comprehensive ABD and OB/GYN Registry Review</td>
<td>2</td>
</tr>
<tr>
<td>DMSO 2050 Clinical Sonography IV</td>
<td>10</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

**TOTALS: **52

2.14 DMSO Course Descriptions

DMSO 1010 Foundations of Sonography (Prerequisite: Program Admission) Using classroom didactic instruction and laboratory experiences, this foundations course prepares students for the role of a sonographer. The course provides a base of knowledge and experiences from which complementary and subsequent courses build on. Topics include diagnostic medical sonography history; medical ethics and law; patient privacy and confidentiality; body mechanics, lifts and transfers; patient assessment and administration of care; transducer care; response to medical emergencies; professionalism; medical and sonographic terminology; cultural competence; ergonomics: work related musculoskeletal disorders; basic sonographic physical principles and system operation; Maslow’s Hierarchy of Needs, and sonographic scanning techniques. Student laboratory scanning hours are included in this course. Contact hours: Class - 1, Lab - 4. Credit hours: 3. (F)

DMSO 1020 Sectional Anatomy and Normal Sonographic Appearance (Prerequisite: Program Admission) This course combines the didactic education of sectional anatomy with active student participation in classroom laboratory experience. Information is weighted toward normal structures which are sonographically visible. Structures are described according to relative location and proportionality. Topics include: normal sectional anatomy of the neck, liver, biliary system, pancreas,
genitourinary tract, spleen, peritoneal cavity, retroperitoneum, gastrointestinal tract, and vascular system structures within the upper and lower extremity; anatomic planes related to sonographic images; sonographic appearance and sonographic patterns of structures in the female and male pelvis, neck, liver, biliary system, pancreas, peritoneum and retroperitoneum, gastrointestinal tract, non-cardiac chest, and upper and low extremities; and related imaging, laboratory testing procedures and functional testing procedures. Student laboratory scanning hours are included in this course. Class - 1, Lab - 4. Credit hours: 3. (F)

DMSO 1040 Sonographic Physics and Instrumentation (Prerequisite: Program Admission) Sonographers apply principles of ultrasound in the operation of medical sonographic equipment to produce a sonogram. Knowledge of the interaction of ultrasound with tissue is important for image optimization, acquisition and interpretation of sonographic images, and critical to the accurate diagnosis of disease. Introduces concepts for the factors involved with diagnostic ultrasound principles and instruments. Emphasis will be placed on ultrasound physics, transducer construction, operation and characteristics, artifacts and adjustable physics parameters. Topics include: basic principles and wave analysis; propagation of acoustic waves through tissues; principles of pulse echo imaging; sonographic transducers and sound beams; hemodynamic and Doppler imaging; sonographic instrumentation; artifacts; quality assurance/quality control of sonographic instruments; bioeffects and safety. Student laboratory scanning hours are included in this course. Contact hours: Class - 2, Lab - 2. Credit hours: 3. (F)

DMSO 1050 Abdominal Sonography I (Prerequisite: DMSO 1010, DMSO 1020) This course combines the didactic education of normal and abnormal abdominal organs and structures with active student participation in classroom laboratory experience. Introduces advanced abdominal anatomy, sonographic appearance and procedures, pathology and pathophysiology for diagnostic medical sonography. Topics include: embryology; anatomy; protocols for all organs and organ systems of the abdomen and noncardiac chest; variants of normal and congenital anomalies; function of organ and organ systems; patient history and indications for examination; scanning techniques; normal sonographic appearance; pathology and pathophysiology; related imaging and functional testing results; normal and abnormal Doppler and color flow characteristics. Student laboratory scanning hours are included in this course. Contact hours: Class - 1, Lab - 4. Credit hours: 3. (SP)

DMSO 1060 Clinical Sonography I (Prerequisite: Program Admission) Provides students with a more detailed introduction into the hospital, clinic or other patient care setting work experience. This course covers the control of the physical parameters of the sonography unit and application of sonographic physics as it relates to image quality. Sonographic examinations are conducted under direct and indirect supervision. Topics include: oral and written communication; provide basic patient care; equipment manipulation for optimum image resolution; ergonomically correct scanning techniques; perform basic sonographic examinations of normal and abnormal abdominal anatomy, superficial structures, pelvic structures and First trimester obstetrics; related imaging procedures and relevant laboratory findings; students must demonstrate progression of knowledge and scanning skills during this clinical rotation. Contact hours: Class - 0, Lab - 12. Credit hours: 4. (F)

DMSO 1070 Pelvic Sonography and First Trimester Obstetrics (Prerequisite: DMSO 1010, DMSO 1020) This course introduces gynecology physiology, pathology, and pathophysiology along with normal and abnormal embryonic and fetal development during the first trimester using diagnostic medical sonography. Topics include: the role of the sonographer in obstetric imaging; antepartum obstetric
sonography evaluation; Doppler imaging for the obstetric patient; significant laboratory values in early pregnancy; anatomy, physiology, pathology and pathophysiology of the female pelvis; gynecologic patient care and imaging Course Descriptions 354 techniques; clinical assessment of obstetrical patient; normal first trimester; uterine and extrauterine assessment during the first trimester; first trimester complications; prudent use; and performance standards and documentation. Student laboratory scanning hours are included in this course. Contact hours: Class - 1, Lab - 2. Credit hours: 2. (Sp)

DMSO 1080 Sonographic Physics and Instrumentation Registry Review (Prerequisite: DMSO 1040) Provides a review of knowledge from previous courses and helps the student prepare for national certification examinations for sonography. Information concerning test taking skills will also be reviewed. Topics include: patient care, safety and communication; physics principles, ultrasound transducers, pulse-echo instrumentation, Doppler instrumentation; and quality assurance/quality control of equipment. Contact hours: 0, Lab - 2. Credit hours: 1. (Sp)

DMSO 1090 Introduction to Vascular Sonography (Prerequisite: Program Admission) This course is designed as an introduction into the field of vascular sonography. The general practitioner will be required to perform venous examinations of the lower extremity, arterial studies of the neck, and some Doppler studies within the abdomen. Emphasis is on the functional workings and settings associated with Doppler signals and waveforms. Topics include: machine/image settings for Doppler imaging; venous imaging of the lower extremities; arterial imaging of the neck; and vascular imaging of the abdomen, including aorta and its primary branches, vena cava, portal and hepatic veins, and renal arteries and veins. Student laboratory scanning hours are included in this course. Contact hours: Class - 0, Lab - 2. Credit hours: 1. (Su)

DMSO 1101 Clinical Sonography II - Part A (Prerequisite: DMSO 1060) This course provides students with continued work experience in a hospital, clinic or other patient care setting. Students conduct sonographic examinations under direct and indirect supervision while continuing to improve their communication, professionalism and critical thinking skills. Topics include: patient care issues; advanced scanning techniques; normal anatomy and pathologic conditions of the abdomen; normal and abnormal sonographic imaging of the male pelvis; normal and abnormal anatomy and pathology of the female pelvis; normal and abnormal uterine and fetal development through the first trimester. Contact hours: Class - 0, Lab - 15. Credit hours: 5. (Sp)

DMSO 1102 Clinical Sonography II - Part B (Prerequisite: DMSO 1060, DMSO 1101) This course provides students with continued work experience in a hospital, clinic or other patient care setting. Students conduct sonographic examinations under direct and indirect supervision while continuing to improve their communication, professionalism and critical thinking skills. Topics include: patient care issues; advanced scanning techniques; normal anatomy and pathologic conditions of the abdomen; normal and abnormal sonographic imaging of the male pelvis; normal and abnormal anatomy and pathology of the female pelvis; normal and abnormal uterine and fetal development through the first trimester; and introduction to vascular sonography. Contact hours: Class - 0, Lab - 3. Credit hours: 1. (Su)

DMSO 2010 OB Second and Third Trimesters (Prerequisite: DMSO 1020, DMSO 1070) Using classroom instruction and laboratory experiences this course introduces the knowledge of fetal anatomy, pathology, pathophysiology and procedures for diagnostic medical sonography. Instruction emphasizes normal fetal growth, fetal anomalies and maternal complications throughout all the second and third
DMSO 2020 Specialized Sonographic Procedures (Prerequisite: Program Admission) This course provides students with three independent areas of concentration. They are High Resolution Sonography, Interventional Sonography and Pediatric Sonography. I. High Resolution Sonography introduces superficial structure anatomy, pathology and procedures for diagnostic medical sonography. II. Interventional Sonography provides instruction in sonographic procedures which are considered invasive and/or require sterile procedures. III. Pediatric Sonography provides the sonography student with specialized imaging procedures for the pediatric patient. Topics include: Intervention Sonography: use of sonography in interventional procedures, transducer care, infection control, response to medical emergencies, contrast media, and organ transplant; High Resolution Sonography: contrast media, and organ transplant; High Resolution Imaging of anatomy and normal variants, function and physiology, indications for examination, sonographic imaging, pathology and pathophysiology, correlative and prior imaging, pertinent lab values; Pediatric Sonography: embryology, anatomy and normal variants, function and physiology, indications for examination, sonographic imaging, and pathology and pathophysiology. Student laboratory scanning hours are included in this course. Contact hours: Class - 2, Lab - 2. Credit hours: 3. (F)

DMSO 2031 Clinical Sonography III (Prerequisite: DMSO 1102) This course provides students with continued work experience in a hospital, clinic or other patient care setting. Students improve skills in performing sonographic procedures previously introduced. Topics include: normal uterine and fetal development through the three trimesters including Course Descriptions 355 placental grading; equipment manipulation for optimum resolution; manipulation of equipment to minimize biological effects; normal anatomy and pathologic conditions of the abdomen and female pelvis; fetal biometry including gestational sac size, crown-rump length, bi-parietal diameter and head circumference; ectopic pregnancies; normal anatomy of the venous and arterial systems of the body; abnormal conditions of the human vasculature system; high resolution sonography including small parts and musculoskeletal imaging; pediatric anatomy and sonographic techniques; interventional sonography including invasive procedures and biopsies; patient care issues; and demonstration of significant progression of knowledge and scanning skills. Contact hours: Class - 0, Lab - 24. Credit hours: 1. (S)

DMSO 2032 Clinical Sonography III (Prerequisite: DMSO 1102) This course provides students with continued work experience in a hospital, clinic or other patient care setting. Students improve skills in performing sonographic procedures previously introduced. Topics include: normal uterine and fetal development through the three trimesters including Course Descriptions 355 placental grading; equipment manipulation for optimum resolution; manipulation of equipment to minimize biological effects; normal anatomy and pathologic conditions of the abdomen and female pelvis; fetal biometry including gestational sac size, crown-rump length, bi-parietal diameter and head circumference; ectopic pregnancies; normal anatomy of the venous and arterial systems of the body; abnormal conditions of the human vasculature system; high resolution sonography including small parts and musculoskeletal imaging; pediatric anatomy and sonographic techniques; interventional sonography including invasive procedures and biopsies; patient care issues; and demonstration of significant progression of knowledge and scanning skills. Contact hours: Class - 0, Lab - 24. Credit hours: 1. (S)
including invasive procedures and biopsies; patient care issues; and demonstration of significant progression of knowledge and scanning skills. Contact hours: Class - 0, Lab - 24. Credit hours: 7. (F)

DMSO 2040 Comprehensive ABD and OB/GYN Registry Review (Prerequisite: DMSO 1050, DMSO 1070, DMSO 2010) Provides a review of knowledge from previous courses and helps the student prepare for ARDMS national certification examinations for sonography. Information concerning test taking skills is also reviewed. Topics include: patient care, preparation and technique; instrumentation, normal pelvic anatomy; abnormal pelvic anatomy; extra-pelvic pathology associated with gynecology; pediatric sonography; post menopause; infertility and endocrinology; first trimester; placenta, amniotic fluid, umbilical cord; second and third trimester; congenital fetal anomalies; complications during pregnancy; fetal demise; coexisting disorders; HIPPA and patient care techniques utilizing a professional sonographer; anatomy and physiology of abdominal structures, small parts, and superficial structures; patient preparation and protocols for sonographic examination of abdominal structure; clinical indications, pertinent related diagnostic imaging procedures and laboratory tests; sonographic technique and appearance of normal anatomic abdominal structures, small parts; characteristic sonographic features and/or patterns of pathology in the abdomen, and small parts. Contact hours: Class - 0, Lab - 2. Credit hours: 2. (Sp)

DMSO 2050 Clinical Sonography IV (Prerequisite: DMSO 2030) Provides a culminating work experience in the hospital, clinic or other patient care setting for students to improve skills in performing procedures introduced during prior clinical and didactic courses to the level of an entry-level sonographer. Topics include: refinement of equipment manipulation techniques, performance of sonographic examinations as an entry level sonographer, role of the sonographer in performing interventional/invasive procedures, and completion of necessary competency requirements for graduation. Contact hours: Class - 0, Lab - 30. Credit hours: 10. (Sp)

2.15 Course Syllabi and Schedules
Students receive a detailed course syllabus at the beginning of each course. Information included, but not limited to, assignment descriptions, project due dates, test and quiz dates, grading criteria and reiteration of some program policies. Each DMSO clinical course syllabi states the specific competencies and content outline.

2.16 Program Grading Scale
See "Grading System" section, of the GTC Catalog. Also refer to each DMSO course syllabus for specific course grading criteria.

Letter Grades
A = 90 - 100
B = 80 - 89
C = 70 - 79
D = 60 - 69
F = 59 and below

Students are required to maintain a 2.0 grade point average while in the DMS program.

Final Exams must be passed with at least a 70% or better to receive a passing grade in this course regardless of the course grade prior to the exam.
2.17 Classroom and Laboratory

- Sonography lecture and lab courses are taught in building 200, primarily in room 370 and the lab is room 122. All sonography classrooms and labs are equipped for multimedia presentations.
- Sonography Lab resources include state-of-the-art ultrasound units.
  - 6 Mindray Systems; 2 Medison systems; ergonomic workstations for each live scanning room; DVD tutorials for AB, OB, GYN and Vascular applications; case files; textbooks, anatomy/pathology models, ultrasound phantoms, and posters.
  - Medaphor Ultrasound Simulator for transabdominal and endovaginal OB/GYN.
- Sonography students have access to GTC computer labs. Students have access to the Sonography Lab throughout the length of a program during assigned times, between on-campus classes, and during open lab sessions each semester.

2.18 Didactic Education

The didactic education portions of the Diagnostic Medical Sonography program consist of theory and principle courses. All sonography courses are sequential and specific to the semesters listed in the program curriculum. The Technical College System of Georgia mandated objectives for the DMS courses are included in the syllabus for each individual course. The TCSG mandated DMS curriculum follows the National Education Curriculum set forth by JRCDMS. The GTC DMS program is a general sonography concentration, focusing on abdomen, obstetrics, gynecology, small parts, and special procedures. All GTC DMS sonography students are introduced to vascular sonography. A detailed study of sonography principles and instrumentation, including Doppler principles and instrumentation and hemodynamics, is an integral part of the DMS program.

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.

Some of the didactic courses require an accompanying lab component. These scan labs prepare students for clinical rotations, benchmarks, and clinical competencies. By attending these scan labs, students learn via hands-on equipment operation and patient examination methods. Imaging protocols are demonstrated and practiced. Scan labs are mandatory. Participating as a volunteer patient is not required. Students will perform benchmark examinations in the laboratory setting.

Didactic education is concurrent with clinical education experience, providing graduates with the skills and versatility needed to function in a variety of health care facilities that service diverse populations.

Examinations: During exams students must clear everything off their desks except for any materials that are specifically allowed by the instructor to be there. Turn off cell phones and other electronic devices and put them away. Students who fail to comply with this policy, or who are caught with any unapproved materials out during an exam may be charged with cheating (depending on the materials) and as a result will receive an F. Repeated offenses may result in failure of the course and dismissal from the program. Graded exams will be handed back to students within one week after grading for reviewing and shall then be returned to the instructor.
Students may not keep their exams because we must maintain all student exams in our student files for accreditation purposes. Students may make notes on the subject content that was missed on the exam, and some instructors may even provide explanation sheets for the items missed that students can keep, but they are not allowed to keep the actual exams or take them out of the classroom. Students may review their exams at any time by scheduling an appointment with their instructor. Student exams are kept in student files located in the instructor’s office.

Students should take a restroom break prior to taking an exam. While the exam is in progress, the student will not be allowed to leave the classroom until they have turned their exam in for grading. Students who have a medical condition which precludes their ability to abide by this policy must present a doctor’s excuse stating such prior to the first exam period. Emergencies will be dealt with on an individual basis.

Once an exam has been turned in, the student will not be allowed to have the exam in their possession again until it has been graded. Students should be sure to make any corrections on their exam prior to turning it in.

2.19 Critical Competencies (See Appendix for chart of Critical Competencies)
Students must demonstrate skills and abilities that meet expectations outlined in the Program Objectives before they are eligible for graduation. The program course objectives devised by the TCSG, Program Director and Clinical Education Coordinator(s) are designed to ensure that students have the ability to perform ultrasound examinations at competent levels by the end of their didactic education and clinical training. Students must demonstrate knowledge of current scanning techniques in the field of medical sonography and ultrasound equipment manipulation before entering careers in sonography. GTC DMS program’s critical competency system is divided into levels that allows students to demonstrate and to prove imaging progression, to demonstrate scanning technique, and equipment manipulation comprehension in the scan lab setting. All critical competencies are assigned based on where students are in the program and what they have been taught. The chart in the Appendix outlines the competencies as well as the scoring requirements. All Critical Competencies must be passed as assigned since these are used to establish proof of progression. Failure to fulfill the requirements shows lack of progression in program requirements and the student will be dismissed from the program. Depending on the timing in the semester, students may be given the option to withdraw with a passing score versus late in the semester, will result in a Withdrawal Failure. A “WP” will be considered if the issue arrives prior to midterm.

Critical Competencies include all DMSO course tests and final exams, participation, GTC DMS clinical notebook. These all must be passed with at least a 70%. Additional critical competencies are:

**Level 1 Critical Competencies:** Graded scans performed by the student on a patient of their choice. The scan quiz must be completed by a certain date and placed on the students GTC DMS thumb drive. Scan quizzes are required for the aorta, liver, gallbladder, pancreas, kidneys, spleen, pelvic, endovaginal pelvic (performed on simulator), endovaginal first trimester OB (performed on simulator), carotid, LEV, thyroid and 2nd/3rd trimester OB.

These critical competencies are graded based on anatomy, protocol, technical aspects (point in program considered), time, measurements. The student must pass all scan quizzes with a score of at least 70%.
Level 2 Critical Competencies: Benchmarks – Benchmarks are performed on a specific date noted in the course syllabus. The student selects a random patient and performs the necessary patient interview. The student then performs the exam while a DMS faculty member watches. The student is assessed while scanning and the scan is reviewed immediately following completion. Feedback is given concerning the skill the student is performing well and in the areas that need improvement. The score is given at this time and both parties sign the score sheet.

Benchmarks are graded on components of psychomotor (Technical), cognitive (didactic) and affective (professional) skills. The student must pass all scan quizzes with a score of at least 70%.

Once all abdominal organ Benchmarks have been passed, the student will receive a certificate to place in their clinical notebook that states they are consistently producing diagnostic images and progressing toward the graduate level in the program. At the clinical affiliate’s discretion, they may be permitted to perform examinations under indirect supervision.

Level 3 Critical Competencies: Clinical Check-offs - Students are assigned check-offs for every clinical rotation. They are given a Master Competency List located in the GTC DMS Clinical Notebook. These are scored by a credentialed sonographer in that specific specialty (AB, OB/GYN). The scoring is:
1- Developing
2- Acceptable
3- Consistently Reproducible

To meet the Level 3 critical competency requirement, the student must earn all 3’s in the required check-off’s by the end of rotation 6. For more detail, see the section 5.18-B, Diagnostic Medical Sonography Clinical Notebook.

Level 4 Critical Competencies: Organ System Benchmarks - This level is performed in the same manner as the Level 2 critical competencies however the patient will not be a classmate. The scoring criteria will change based on the point in the program. Time limits will also change. The organ system benchmarks aorta, liver, gallbladder, pancreas, kidneys, spleen, pelvic, endovaginal pelvic (performed on simulator), endovaginal first trimester OB(performed on simulator), carotid and thyroid. The 2nd/3rd trimester OB Level 4 critical competency is met in the form of the OB Portfolio assigned in DMSO 2010.

Benchmarks are graded on components of psychomotor (Technical), cognitive (didactic) and affective (professional) skills at the level expected based on the point in the program. The student must pass all scan quizzes with a score of at least 75%.

Level 5 Critical Competencies: Complete Studies - A student is eligible to begin this level once they receive all 3’s in their level 3 critical competencies but no sooner than their 6th clinical rotation. Students will be graded on complete exams performed at their clinical site. They may turn the exam in on a disk if they performed a study they want graded and a DMS faculty member was not present. They must have completed the exam in its entirety. This exam is graded by GTC DMS faculty based on anatomy, technical skills, protocol, time, measurements, documentation of abnormal if indicated, and the diagnostic value of the study. Student must pass this level with each exam scoring at least 85%.

Failure to Pass Level 2 or Level 4 Critical Competencies (Benchmarks)
It is a requirement for graduation to pass ALL Benchmarks. In the event that a student scores below the required level on their initial attempt, he/she may make one additional attempt to pass, with the highest grade possible being 70 for Level 2 and 75 for Level 4. This final attempt must occur within two weeks of the second attempt. If the student still does not pass on this final attempt with a grade of at least 70 or 75 accordingly, a grade of “F” will have been earned. This grade makes it impossible for the
student to proceed in the DMS program due to program Critical Competency requirements. A student may only repeat 3 Benchmarks during their time in the program.

*If the DMS faculty or Clinical Instructor observes less than entry-level performance of a previously passed benchmark proficiency, the supervising sonographer may challenge the proficiency. All of the performance objectives for that proficiency must be repeated.*

### 2.20 Graduation Requirements (Critical Competencies for DMSO 2050)

While considerable guidance and advisement will be provided for each student, they must clearly understand that it is the student's own responsibility to complete all program requirements prior to the expected graduation date.

**Program completion guidelines:**

1. Student must receive a minimum grade of "C" but also maintain a semester GPA of 2.0 to remain in the program. If a student’s GPA falls below a 2.0 in any semester or earns below a “C” in any professional course, he/she will be dismissed from the program.

2. Students must have passed all Critical Competencies according to the chart on the next page. The student will be withheld from graduation if all requirements of the Critical Competency System have not been completed as required.

3. Students must successfully complete with a grade of 75% or better, the OB Image Portfolio as detailed in the DMSO 2010 course syllabi prior to the end of the fifth semester. The student will be withheld from graduation until the Portfolio meets the grade criteria.

4. Students must pass the ARDMS Sonographic Principles and Instrumentation Registry Exam prior to graduation. The student will be withheld from graduation until the SPI Registry Examination has been passed.

5. Students must have documented at least 1224 clinical hours in order to graduate from the program. Additional clinical time may be required and will delay the student’s graduation.

6. The students GTC DMS Clinical Notebook must be completed accurately prior to graduation. Failure to document clinical requirements of the program will result in the student being withheld from graduation.

7. Students must have attempted the OB and AB ARDMS Registry Examinations during their final semester in the GTC DMS Program. Failure to attempt these examinations will result in delayed release of the student’s degree until the requirement is met.

### 2.21 Imaging Sciences Advisory Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patrick Gilligan</td>
<td>Northside Hospital Administrative Radiology Manager</td>
</tr>
<tr>
<td>Tracy Wilkinson</td>
<td>North Fulton Hospital Director of Imaging Services</td>
</tr>
<tr>
<td>Amandalena Rowe</td>
<td>V.A. Medical Center Clinical Instructor</td>
</tr>
<tr>
<td>Aileen Walker</td>
<td>North Fulton Hospital PACS/QI Coordinator</td>
</tr>
<tr>
<td>Portia Dennis</td>
<td>Piedmont Hospital Lead RT</td>
</tr>
<tr>
<td>Valerie Rogers</td>
<td>Gwinnett Medical Center Imaging Educator &amp; QI</td>
</tr>
<tr>
<td>Karen Kubik</td>
<td>Gwinnett Medical Center Radiology Manager</td>
</tr>
<tr>
<td>Nandita Mishra</td>
<td>Northside Medlock Bridge</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Staff RT</td>
</tr>
<tr>
<td>Angel Meeler, RDMS</td>
<td>Gwinnett Medical Center</td>
</tr>
<tr>
<td></td>
<td>Ultrasound Technologist RDMS, RVT</td>
</tr>
<tr>
<td>Debbie Blumensaadt</td>
<td>Children’s Healthcare of Atlanta- Scottish Rite</td>
</tr>
<tr>
<td></td>
<td>Ultrasound Technologist RDMS</td>
</tr>
<tr>
<td>Sara Logan, RDMS</td>
<td>Athens Regional Medical Center</td>
</tr>
<tr>
<td></td>
<td>Lead Technologist RDMS</td>
</tr>
<tr>
<td>Adrielyn Jackson, BS</td>
<td>Kaiser Permanente</td>
</tr>
<tr>
<td></td>
<td>Ultrasound Program Coordinator</td>
</tr>
</tbody>
</table>

SECTION III. DMS POLICIES AND PROCEDURES

3.1 Student Professionalism Score
Students will begin with a Professionalism score of 100 points, and will be evaluated in the classroom, lab and clinical site setting, according to the guidelines outlined in the Work Ethics and Employability Skills and the DMS Policies and Procedures standards. Students receive a points based on numeric grade in Professionalism that will be deducted from their final average in the DMSO course.

1. Professionalism score of 96 % = 0.5 point deduction
2. Professionalism score of 95-90 % = 1 point deduction
3. Professionalism score of 89-85 % = 2 point deduction
4. Professionalism score of 84-80 % = 3 point deduction
5. Professionalism score of 79-75 % = 4 point deduction
6. Professionalism score of 74-70 % = 5 point deduction
7. Professionalism score < 70 % = Course failure

Demerit Counts
Students begin the semester with 100 Professionalism points. For any of the following issues encountered, they lose the designated number of points. **A score of 70%, or better, must be maintained to successfully complete this course. The DMS coursework is sequential and being dropped from a class will not be conducive with progression in the DMS program. The student will have to re-apply to the program.**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absence from class/clinical regardless of reason- up to 2 days/semester</td>
<td>4 per day</td>
</tr>
<tr>
<td>(Death in the family or extended illness will be taken into account and could only be counted as one absence. Physician’s note necessary.)</td>
<td></td>
</tr>
<tr>
<td>Additional absence- 3 or more</td>
<td>10 per day</td>
</tr>
<tr>
<td>Failure to notify instructor of impending absence prior to class</td>
<td>10 per occurrence</td>
</tr>
<tr>
<td>Failure to turn in absence form by next on-campus day</td>
<td>4 points per occurrence</td>
</tr>
<tr>
<td>Tardiness to class</td>
<td>5 points per</td>
</tr>
<tr>
<td>Negative performance in any Work Ethic category</td>
<td>20 per occurrence</td>
</tr>
<tr>
<td>Failure to adhere to DMS program class/lab or clinical policies/procedures</td>
<td>15 per occurrence</td>
</tr>
<tr>
<td>Non adherence to college policies/procedures</td>
<td>15 per occurrence</td>
</tr>
<tr>
<td>Inability/Refusal to follow directions</td>
<td>15 per occurrence</td>
</tr>
</tbody>
</table>
• Failure to turn in assignments or clinical paperwork on time 5 per occurrence
• Leaving clinical unit before designated time without instructor notification/approval 10 per occurrence
• Use of electronic device in clinical area 10 per occurrence
• Social Media Policy Breach 20 per occurrence
• DMS Behavioral Violations 10 per occurrence

Students receive and sign a copy of DMS program class/lab and clinical policies and procedures. The GTC college catalog can be accessed online at www.gwinnettech.edu.

If a student has a contagious disease (severe cold, flu, etc.) noted by the student, instructor or physician, then the student will be expected to refrain from attending classes and will be expected to seek prompt medical attention and follow-up medical care.

Students who suffer from a prolonged illness, resulting in absences beyond the number allowed for a course will be dropped from the course(s) and subsequently from the program. Students in this situation are strongly encouraged to apply for readmission the following year.

It is the student’s responsibility to make arrangements prior to an illness to have a plan for medical treatment for illness for themselves and their dependents. Students should also have a plan for childcare in the event of a dependent’s minor illness. It is best to have these plans in place before an illness occurs to prevent problems later on.

3.2 DMS Participation:
Participation and punctuality in classes is one of the student’s primary responsibilities. Time lost can never be replaced. In the event that an absence or tardy is deemed necessary by the student, he/she is held accountable for all work missed.

For any absence, the DMS instructor and program director as well as the clinical affiliate must be notified 30 minutes prior to the start of class/clinical. Students are provided with faculty and clinical affiliate contact information.

Notification methods:
• Faculty: email
• Clinical: phone call, voicemail. Students may leave a message with any sonography departmental staff. They do not have to speak with the lead technologist.
• No notification is necessary for tardiness. For professional considerations, you may want to call your clinical affiliate.
• DO NOT TEXT FACULTY between the hours of 9:00 pm and 7:30 am.
• DO NOT TEXT Clinical Instructors.

Terms and conditions:
1. For all didactic and classroom laboratory sessions, a student more than 30 minutes late will constitute an “absence”, pending the reason for the tardy.
   • A tardy constitutes 1-29 minutes late
• Habitual tardiness (3 per semester) will not be tolerated. A fourth tardy in the same semester will result in an automatic 30 point deduction from the professionalism score.
• Habitual tardiness is considered when tardy to any and all DMSO courses and is cumulative for each semester.

2. If DMS faculty/clinical instructor is not notified of an absence before class has started, the absence will be considered “unexcused” and the student will receive “zeros” on all assignments for the day.

3.3 Work Ethic
Nationally, as well as in Georgia, employers have expressed concerns about work ethics as one of their top issues. The U.S. Department of Labor estimates that 80 percent of workers who lose their jobs do so not because of the lack of occupational skills, but because of poor work ethics. In response, the Technical College System of Georgia requires that technical education include occupational skills and work ethics.

The curriculum for GTC work ethics was developed by the college. The ten work ethics are:
• Participation: the student attends class, arrives/leaves on time, notifies instructor in advance of planned absences, and makes up assignments punctually.
• Character: the student displays loyalty, honesty, trustworthiness, dependability, reliability, initiative, self-discipline, and self-responsibility.
• Teamwork: the student respects the rights of others, is a team worker, is cooperative, is assertive, displays a customer service attitude, seeks opportunities for continuous learning, displays mannerly behavior.
• Appearance: the student displays appropriate dress, grooming, hygiene, and etiquette.
• Attitude: the student demonstrates a positive attitude, appears self-confident, and has realistic expectation of self.
• Productivity: the student follows safety practices, conserves materials, keeps work area neat and clean, and follows directions/procedures.
• Organizational skills: the student manifests skills in personal management, time management, prioritizing, flexibility, stress management, and dealing with change.
• Communication: the student displays appropriate verbal and nonverbal skills.
• Cooperation: the student displays leadership skills, appropriately handles criticism and complaints, demonstrates problem-solving capability, maintains appropriate relationships with supervisors and peers, and follows chain of command.
• Respect: the student deals appropriately with cultural/racial diversity, and does not engage in any harassment of any kind.

3.4 Diagnostic Medical Sonography Program Social Media Policy
Students of the Gwinnett Technical College Diagnostic Medical Sonography Program participating in class/lab/clinical experiences are held to the same confidentiality standards as the employees of the college and any assigned clinical site.

Confidentiality standards are enacted to protect any information pertaining to patients, procedures, policies, and identification of clinical sites. The standard of confidentiality extends to include any and all Social Media Networking Sites. (Facebook, Instagram, Twitter, etc.)

Students are required to comply with and abide by all DMS lab policies as well as clinical site policies.
and procedures including posting on social media networking sites. Students are also subject to the same penalties as employees of the college and clinical site, including immediate dismissal from the clinical site resulting from breach of the social media policy and possible dismissal from the program.

Students are strictly prohibited from posting any information pertaining to or descriptive of a clinical site, DMS faculty, patient, employee, or procedure. This includes revealing the location of the clinical site either by posting or by GPS locator evidence. The use of social media to post negative or derogatory comments about a patient, clinical site, clinical instructor, faculty member, staff member, or fellow student is strictly prohibited.

Posting any comments that would reflect on the clinical site is prohibited. Any disgruntled comments pertaining to the GTC DMS program, clinical experience or form of clinical instruction is also prohibited. It should also be noted that posting of any unfavorable comments during class or clinical hours (i.e. on break or lunch) regarding personal issues may be interpreted as a breach of this policy. The student must refrain from any identifiable posting during class/clinical hours or be subject to the penalties of breaching the social media policy.

To avert infractions, the student is required to research their clinical site’s policies and procedures, in particular the social media policy. Violations of the social media policy will result in a reduction in the student’s clinical grade, immediate dismissal from the clinical site where the infraction occurred, dismissal from the clinical portion of the Diagnostic Medical Sonography program, or any combination of the above. Refer to the Professionalism Score in your handbook and syllabi.

Also, failure to comply with the clinical site’s social media policy may result in additional disciplinary actions specific to and directed by the clinical site. Be aware that violating the social media policy for this program may also violate federal law under the Health Insurance Portability and Accountability Act of 1996 (HIPAA). http://www.hhs.gov/ocr/privacy/hipaa/understanding/summary/index.html

3.5 Inclement Weather Policy
In the case of Inclement Weather, students should listen to 95.5 FM for area weather watches and warnings, school closings, etc... If the college closes due to inclement weather, DMS faculty will email students information and assignment instructions. Students will be held accountable for the information contained in the email unless there is proof of a power outage or internet interruption.

3.6 Didactic/Clinical Deficiency System
The professionalism score will be used as well as the following:

1) Warning: Affective Domain Performance Notification- written warning.
2) Conference: reprimand. The student will have a counseling session with the program director. Disciplinary reprimand will result in the drop of one letter grade for the didactic course or for the DMS faculty evaluation grade if a clinical course for that semester. Continuation of misconduct will result in progression to step 3.
3) Probation with possible suspension: Issue remains a problem to parties concerned. Steps toward resolution are written out for student to sign as acknowledgement of expectations and consequences.
4) Withdrawal: Failure to meet probationary requirements in the time specified.

The offenses are cumulative, not necessarily repetitive violation of the same rule or policy. The student should be aware that the seriousness of the offense may require that some or all of the
normal steps may be skipped. Suspension will affect participation, and will be counted as absences. See Participation Policy in this DMS Student Handbook.

3.7 DMS Behavioral Violations

Category One Offense: Violations of these rules are serious in nature and will result in suspension or immediate dismissal. A student dismissed for a Category One violation will NOT be eligible to return for enrollment in the DMS Program. Examples of Category One offenses include, but are not limited to, the following:

1. Fraudulent completion of clinical assignment(s) to include time and participation documentation.
2. Sleeping while on clinical assignment.
3. Cheating on an academic examination.
4. Reporting to academic or clinical assignment under the suspected influence of alcohol or illegal substances.
5. Reporting to academic or clinical assignment in the possession of alcohol or illegal substances.
6. Use of alcohol or illegal substances while on school or affiliate site property for academic or clinical assignment.
7. Theft of hospital/affiliate, patient, school, or employee property.
8. Willful destruction of hospital/affiliate, patient, school, or employee property.
10. Arrest and conviction for illegal use, possession, or distribution of illegal substances.
11. Insubordination to include refusal to perform assigned task or obey instructions.
12. Negligence or deliberate oral or physical abuse in the care and treatment of patients, guests, students, or employees.
15. Immoral or lewd conduct on school or affiliate property.
16. Unethical behavior.

Category Two Offense: Violations of these rules are considered in a range of less serious to serious in nature. However, depending on the severity of the offense or multiple offenses, the progressive disciplinary action for the following will be written warning, reprimand, suspension and then dismissal. Examples of Category Two offenses include, but are not limited to, the following:

1. Failure to report for clinical assignment without contacting the clinical instructor and the clinical coordinator.
2. Failure to attend an academic class without informing the DMS faculty.
3. Failure to report illness to school, i.e. notify the program office and the clinical site.
4. Excessive tardiness.
5. Sleeping in class during academic time.
6. Continued late completion and/or submission of academic and/or clinical assignments.
7. Loitering in non-assigned areas of any clinical assignment.
8. Smoking, eating, drinking, or chewing gum in non-designated areas.
9. Horseplay and unprofessional conduct or behavior in or around patient care areas or academic classes.
10. Abusing the approved time for lunch period.
12. Use of cell phone while on clinical duty.
13. Reporting to a clinical or academic assignment in improper attire, appearance or grooming as defined in the Classroom Policy and the Dress Code and Grooming Policy.
14. Continued violation of Dress Code and/or Grooming Policy will result in dismissal.
15. Unsatisfactory attitude.
16. Breach of professional confidence.
17. Use of profanity at school or on clinical assignment.

3.8 Academic Dismissal
To pass a class, students must earn a “C” or better however students in the DMS program are required to maintain a 2.0 GPA each semester. Students will receive a warning if their academic status appears to be in jeopardy along with counseling from DMS faculty. Clinical courses tend to carry a lot of weight in GPA calculation due to the high credit value. Failure to pass critical competencies will result in academic dismissal.

3.9 Program Dismissal
The Program Director of Diagnostic Medical Sonography reserves the right to recommend dismissal of a student for any of the following reasons:
   A. Insubordination, as applied to not following program policies or faculty direction.
   B. Intoxication on campus or at clinical education centers due to chemical abuse.
   C. Unprofessional or unethical conduct, as defined in national professional standards.
   D. Student misconduct as defined in the GTC Catalog.

The Program Director will follow the procedure for filing a complaint with the Student Disciplinary Officer as stated in the GTC college catalog.

3.10 Reinstatement
Students who have been dismissed or have elected to withdraw from the Diagnostic Medical Sonography program after having successfully completed at least one semester of professional coursework may request reinstatement. The student must be in good academic standing at the time of reinstatement. This means that the student’s last semester and cumulative G.P.A. must be 2.0 or above.

Students dismissed for professional/behavioral issues are not eligible for reinstatement.

If a student elects to petition for reinstatement, the request must be made for the succeeding school year to avoid retaking professional courses which were previously completed. **Students will be expected to demonstrate competency in previously successful program coursework by taking the final examination and imaging tests as dictated by the semester the student last completed.** If students delay a request for reinstatement beyond the immediately succeeding school year, they are no longer eligible for reinstatement and must follow the readmission process or reinstatement to the program unless a waiver has been requested and granted by the program. Students, who have been provided a second opportunity through the reinstatement or readmission process, will not be considered for a third opportunity in the event of a second dismissal or withdrawal.

3.11 Emergency Leave Policy
If the student is unable to attend the program course or clinical for an extended period of time (1
week), the student’s physician must provide a release letter stating when the student is able to return to class. Any absence longer than 1 week will require a conference with DMS faculty to determine the student’s path.

Students who withdraw from the program due to illness or pregnancy and who are in good academic standing at the time of withdrawal will gain readmission in the next scheduled class of students or within one year if the withdrawal date; however, she/he must submit an application for readmission and go through the readmission verification competency.

Students readmitted to the program may have to retake coursework at their own expense in order to refresh knowledge and technical skills. The student is expected to fulfill all assignments as required, unless physically unable. If it is medically necessary to remove the student from the clinical setting, he/she may be able to continue in the didactic portion of the program. However, students must complete all clinical competencies required before being eligible for graduation from the program. This could result in a delay in program completion beyond the expected graduation date.

3.12 Pregnancy
If pregnancy occurs while a student is enrolled we will work with the student in every way possible to help meet their goals. Students who are pregnant may attend classes, labs and clinical as long as their physician recommends it. Late term pregnancies may be require a note from the student’s physician stating that they may continue in the program up until a specified date. Pregnancies with complications may require the student to withdraw from the program and apply for readmission for the following year.

The student has the option to withdraw from classes at any point during the pregnancy and a spot will be reserved for them in the program the following year so that they may complete the program. In some cases, students may be required to withdraw from clinical courses, but may be allowed to complete didactic courses. This is determined on an individual basis according to physician recommendations.

Students who become pregnant are not permitted to scan themselves nor are other students permitted to scan pregnant classmates unsupervised due to possible bioeffects that could result. Scanning of this nature may only be performed under the supervision of a Gwinnett Tech instructor with close monitoring and a written waiver must be signed by the student or volunteer prior to any scanning activity.

3.13 Early Graduation
It is the philosophy of the program faculty that education is an ever-continuing process and that one must continually improve skills and advance knowledge. Thus, we believe that a professional education includes a combination of intellectual growth and self-development which is necessary to become a competent sonographer. For a student to show this development, he must maintain Continued Proficiency through all five semesters. In addition, DMSO courses are sequential and only offered once every 20 months. Thus, each student must complete all five semesters to graduate from the program.

3.14 Student Work Policy
Some of our students must work while attending school. We recommend not working more than 20
hours each week if at all possible. The Sonography Program will, in itself become a full-time commitment for the student. It has been our experience that many students who attempt to work more than 20 hours each week tend to perform poorly and usually do not graduate from the program.

The sonography student may not work at a clinical site during scheduled clinical hours. A student may be hired to work for a clinical site outside scheduled clinical and class times, however the college takes no responsibility for the student in these conditions and the clinical site employer is hiring the student at his/her own risk. The student’s malpractice insurance does not cover students to perform ultrasound exams outside of regularly scheduled clinical hours. Additionally, students are not allowed to work at their clinical sites during clinical hours. If a student has or acquires a job at their clinical site they may not work for that site until after clinical hours have concluded. Students at their assigned clinical site cannot be substituted as/for a paid employee and the experience is for educational purposes only.

Students may work in their free time but will not be permitted to leave class or clinical to go to work.

3.15 Communication and Email
Gwinnett Tech student email addresses are automatically issued to all students within 48 hours following acceptance to the college. A link to the GTC Dashboard, the student portal with access to email, is provided from the college website www.gwinnettech.edu. Click on Dashboard located on the menu located at the top of the page. Student email addresses are issued in the form: first letter of first name and first 6 letters of last name (or full last name if 6 letters or less) plus last 4 digits of your student 900 number (FLLLLLLL9999@student.gwinnettech.edu). For example, John Williams, student ID number 900123456, would have the email address of jwillia3456@student.gwinnettech.edu. The initial password is gtcmmddyy where mmddyy is student’s birthday in mmddyy format. The GTC must be in lower case letters. Please note to login you do not need to use “@student.gwinnettech.edu”; only FLLLLLLL9999.

Student email is the college’s primary means of communication between students, faculty, and college administration. For help in using student email please see the “First Time Users” link on the portal page at https://mycampus.gwinnettech.edu. If you encounter any issues please email accounts@gwinnettech.edu.

DMS faculty utilizes email daily. Students are required to set up the account and check it daily. Crucial information will be missed if this is not done. DMS faculty will not communicate with program students through personal email accounts.

Texting will be addressed in each course syllabus.

3.16 Computer Labs
There are no open computer labs in building 200. Use of these labs must be reserved by GTC faculty. There are computers and printers in the student lounge on the second floor. Food and drinks are not allowed near computer equipment (this includes scanners and any other electronic equipment). To prevent viruses, removable media such as flash drives, DVD’s, and CD-ROMs that are used should be designated for use only on school computers. All internet surfing should be education-related and students should not open attachments from personal email on the school computers unless it comes from an instructor on your TechLink email account. Students should never attempt to install software on the computers. Only Information Tech (IT) staff are allowed to install
software on computers. Drug & Alcohol Use See the policy in the college catalog under the Student Code of Conduct.

3.17 Academic Calendar
Academic calendars are available online at www.gwinnettech.edu or in each course syllabus.

SECTION IV: DMS LAB POLICIES AND PROCEDURES

4.1 Lab Scan Stations
All students using the lab are responsible for its maintenance and cleanliness. Students are expected to treat this lab as if they paid for it themselves.

1. EQUIPMENT
   - The machine should not be touching the stretcher or the wall.
   - The stretcher should not be touching the machine or the wall.
   - If you have to move the machines, do it slowly and carefully. WATCH all cords that are attached.
   - Machines and monitors MUST be plugged into the surge protectors.
   - Medaphor Simulator room should be treated the same as a scan station.

2. All scanning rooms should be left in an organized, clean manner daily. Not all inclusive, common sense must be used.
   - All transducer cords should be off the floor and cradled on a hook, regardless if it was used by student directly.
   - Main equipment cord should have minimal slack so it won’t be run over when moved.
   - Transducers should be wiped down PROPERLY including the cord. Transeptic should be used.
   - Gel bottles returned to gel warmer. If empty then file or replace with new bottles.
   - All trash should be in a receptacle. (paper gowns, stretcher covers, lead covers, handouts, etc...) 
   - All dirty linens should be in hamper.
   - There is a linen closet. The drawers should only be use for extra towels and ONE extra sheet each, for ECHO and DMS.
   - Stretchers returned to lowest setting.
   - Stretcher linens should be folded and put in the drawer unless they need to be washed.
   - Glove boxes should be in the rack or drawer. If empty, dispose of box and replace.
   - Take note of equipment to make sure there is no gel or dust on the screen or console.
   - Wipe off foot rest if excessively dirty.
   - Remove any paper printer images.
   - Treat curtains with care. Do not be aggressive if they do not move smoothly. Gently pull open and close.
   - Cover machines, being mindful of the document arm.
3. If a LAB ASSISTANT is required because of continuous class lab violations, the schedule is posted on the door. This student is responsible for the lab at the end of each session.
   - Does not have to CLEAN the lab, just confirm that it has been done.
   - Delegate tasks that need to be completed.
   - Should be the last one to leave. Record if you have to call someone back to clean their area.
   - Findings by the Faculty from next lab session will be reported and the lab assistant will be held accountable.

4. ALL STUDENTS ARE REQUIRED TO PERFORM LAUNDRY DUTIES.

5. After hours students MUST sign in and out. You are responsible for cleaning the area used.
   - Turn off lights
   - Open all curtains

6. If any area needs to be cleaned, clean it. Dust on counters, gel rings, etc...

7. NO FOOD OR DRINK PERMITTED in the scanning rooms.

8. DO NOT eat while sitting on the stretchers or use the ergonomic scanning chairs for anything other than scanning.

9. No CELL PHONES used in the lab.

Violation Consequences: Accumulative violations (does not mean repetition of same violation)
   1st violation: Written warning to individual student
   2nd violation: Clean entire lab, top to bottom
   3rd violation: Probation with possible program dismissal; Loss of any after-hours scanning privileges; Will have personal inspection after each lab session.

4.2 Lab Scanning Policies and Procedures
   1) NEVER give any exam information or opinions, including preliminary or suspected findings to the volunteer patient.
   2) Lab volunteers must sign the waiver every time they come to the lab.
   3) Student must witness by signing the waiver.
   4) Students must comply with the Clinical/Lab Dress Code.
   5) No food or drink is allowed in the DMS Sonography Classroom/Lab area at any time.
   6) Students are required to demonstrate professional conduct/composure during all scanning experiences.
   7) It is a requirement that students participate in any and all activities assigned for a given lab session.
   8) Student classroom/clinical sonography lab responsibilities:
      a. preparation of the imaging station
      b. careful, safe and ergonomic use of the furniture and equipment in the classroom/lab
      c. providing appropriate care for volunteer before, during, and after the scan, following Standard Precautions.
      d. cleaning the transducer, ultrasound unit, scan table and ancillary equipment after scanning and at the end of the lab session.
      e. turning off the ultrasound unit and lights at the end of the lab session, as directed.
9) When a volunteer model is to be scanned, the student is responsible to:
   a. provide the **DMS Volunteer Waiver Form** to read and sign.
      i. Children are not allowed in the DMS Classroom/Lab without a guardian
      ii. With parental permission children with no known medical problem
           may be scanned. The parent signs the waiver form.
   b. All obstetric patients MUST have a signed GTC permission slip from their
      physician.
   c. escort the volunteer to the scan area, explain the exam process, and obtain a brief
      medical history while ensuring HIPAA compliancy.
   d. explain to the volunteer that technical information and scanning instructions will
      be given to the student during this scanning session.
   e. only provide images to the volunteer under some circumstances determined by
      the faculty.
   f. **thank the volunteer** for his/her time and willingness to participate in the lab
      session.
   g. have volunteer report to faculty member to obtain their volunteer points as
      needed.

4.3 Pathologic/Atypical Findings in the DMS Lab

1. If a non-emergent finding is discovered by the student and/or faculty, the faculty will provide
   information to the volunteer and recommend they contact their physician.
2. If an emergent finding is discovered by the student and/or faculty, faculty will call emergency
   services.

4.4 Pathologic/Atypical Findings in the DMS Lab: Obstetrics

1. If a **significant finding** is discovered by the student, it is reported to faculty and not the patient.
   Faculty will document the finding and the scan session is terminated as soon as possible. The
   instructor determines if the abnormality is life threatening to the mother or fetus. There exists
   the possibility of calling “911” immediately. Normally, representative images or a DVD are
   taken for the school’s records and for the DMS Medical Advisor. The instructor leaves the
   scanning room and contacts the patient’s physician to inform him of the suspected abnormality
   and the name of the volunteer’s physician.
2. If the abnormal finding is determined by the instructor to be non-life threatening, the scan
   session will be terminated and the patient is dismissed as soon as representative paper images
   or a DVD are taken for the school’s records. The DMS faculty contacts the patient’s physician
   and describes the findings of the sonogram.
3. The faculty member completes a detailed description of the incident.
SECTION V: DIAGNOSTIC MEDICAL SONOGRAPHY CLINICAL EDUCATION

5.1 Overview
Clinical education is a vital element of the GTC DMS program encompassing a majority of the contact hours within the Program. There are five competency based clinical courses meaning each course has designated competencies that coincide with didactic education and are documented in the GTC DMS Clinical Notebook and MYCLINICALHOURS.COM (TBD).

Sonographers continuously use critical thinking skills and possess thorough knowledge of anatomy and sonographic imaging protocols. They must decide which images to acquire while simultaneously adjusting technical parameters to insure an accurate, diagnostic examination. There are times when the sonographer is expected to go beyond the minimum protocol to provide a diagnostic study that reflects the true pathologic process.

Proficiency and competency in performing sonographic examinations is a continuous and cumulative process based on the consistent demonstration of accurate scanning skills. The DMS 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. Critical Competencies are required to ensure that the DMS student is prepared to enter the workplace as an entry-level sonographer and to eventually pass his/her registry examinations.

For complete information pertaining to GTC DMS clinical education, DMS Program students will be provided with the GTC DMS Clinical Notebook during DMSO 1060. Each DMSO clinical course syllabi states the specific competencies and content outline.

5.2 Clinical Rotation Assignments
Students should recognize that clinical assignments are required by the Joint Review Committee on Education in Diagnostic Medical Sonography and that the assignments are to provide practical experience opportunities enabling the student to achieve required professional competencies. Students are guests at each clinical affiliate and should complement each affiliate’s sonography department. All students must exhibit an attitude of maturity and responsibility toward their clinical assignment and experiences. Each clinical affiliate expects the student to provide high quality patient services, to attend regularly, to be punctual, and to work with initiative and enthusiasm. DMS students are expected to be an asset to the team and not simply focused on obtaining competency check-offs.

Clinical affiliates are located all over the Gwinnett but we do try to keep them with an hour’s drive of Gwinnett Technical College. Planning clinical rotations is a difficult task and the clinical coordinator cannot take into account mileage, financial situation, day care needs, etc. Diagnostic Medical Sonography students will be responsible for providing their own reliable transportation to and from clinical assignments. Information concerning department contact, clinical instructor, directions to the site, parking location, parking fees, student badges and other pertinent information will be provided. This information can also be found in the clinical affiliate notebooks located in the classroom.

Assignments can ONLY be changed by the Program Director or Clinical Coordinator. Clinical requests are NOT permitted by students. Clinical rotation calendars are provided to each student and affiliate at least 4 weeks in advance. It is the student’s responsibility to check the scheduled assignment for the
correct place, dates, and hours. The schedule is subject to change. Every effort is made to secure clinical placements in which the student will have ample access to scanning opportunities. The GTC DMS faculty cannot control the type and volume of cases performed during student clinical hours. Excessively full schedules and staffing issues may prevent a sonography student from actively scanning patients. Clinical instructor’s discretion determines the student participation level based on the student’s proven technical skills and other justifiable factors.

5.3 Educational Equity
All students will have equitable access to challenging and meaningful learning and achievement in clinical assignments. In making clinical assignments, great care is taken to assure students are receiving equivalent opportunities at the various clinical affiliates. Rotation schedules are evaluated every semester to ensure this equity is maintained. The program does not assign clinical sites based on where a student lives, but strictly what each clinical affiliate has to offer, patient load, types of exams, and clinical environment. Faculty reviews the number of student exams as entered in MyClinicalHours.com to assess educational equity and to help plan for future rotations.

5.4 Clinical Affiliate Requirements of the Student
Each clinical affiliate has their own specific requirements for DMS students to be permitted to perform clinical rotations at their facility. Students will be required to review materials pertaining to the affiliate in addition to their policies and procedures. There will be tests on the information and students will have to sign several documents stating that they understand and will abide by the policies and procedures of each clinical affiliate. The GTC DMS clinical coordinator will guide the students through this process during the first semester. All students are required to complete all of the GTC DMS clinical affiliate documents. The clinical coordinator will make sure that all student documentation is sent to the clinical affiliate. Students may periodically be required to participate in continuing orientation processes for certain clinical affiliates.

5.5 Background Check and Drug Screening
This component is a requirement mandated by the clinical affiliates. Successful completion of a criminal background check and drug screen is required in order to participate in the clinical education portion of the DMS program and must be satisfied before beginning clinical education.

Background checks will be honored for the duration of the student’s participation in the 5 semester GTC DMS program. A break in the enrollment may require a new background check and drug screen.

Once accepted into the program, students will be given instructions as to how to complete this process. Students must use Advantage Students as directed by the DMS faculty. Students should not take it upon themselves to begin this process until directed by GTC DMS faculty. The process consists of an online information questionnaire submission. Once completed, the student will receive information from Advantage Students concerning the drug screening process. It is imperative that the student begin this process as soon as instructed due to the possibility of clinical education delays.

If there are any changes in this status post background check, it is the student’s responsibility to immediately notify the DMS Program Director in writing of any subsequent changes in criminal history. Failure to do so may result in immediate withdrawal from the program.

Please note:
- Successful completion of a criminal background check for the DMS program does not ensure eligibility for licensure or future employment.
• If a student is found to be ineligible for clinical placement any time during the program, the student is unable to meet clinical learning objectives and will be withdrawn pending resolution of the situation.
• If there is something in a student’s background that is of concern, the student may contact the ARDMS and request a review of the circumstances. There is a fee for this service but registry eligibility can be determined prior to beginning the sonography education.

Medical Screening and Vaccinations
Students will be required to complete a health history form for the DMS program and as part of orientation requirements for several clinical sites. The DMS health history form must be completed by a medical practitioner and students are required to document vaccination history/proof of positive immune titer for Measles, Mumps, Rubella, Tetanus, Varicella and Hepatitis B. While in the program, students must also have yearly documentation of an influenza vaccine as required by clinical affiliates. If a student has medical or religious objections to obtaining vaccines, they must notify the program director and will abide by the policies of each clinical affiliate when at that facility. (i.e. wearing mask etc.) In addition, students must complete a yearly PPD (tuberculosis screening) test to attend clinical rotations. If the PPD test is positive, the student may be required to obtain additional testing such as a chest x-ray or blood test. Some clinical affiliates may have additional requirements. Students will be notified well in advance if they need additional immunizations.

5.6 Clinical Participation (Refer to DMS Professionalism Score in Section III)
Students are expected to **attend all clinical assignments** as scheduled by the Clinical Coordinator. Students are to be signed in/out on their DMS time sheet upon arrival and departure each day of the rotation. The times must be initialed by the clinical instructor. Failure to sign in or out will result in no clinical credit for that day. The total number of hours the student spends in their clinical assignment will be entered on the student’s record at the end of each semester. This number must match the required number of hours set by the Program Director for each clinical course. A major discrepancy could result in postponement of graduation.

<table>
<thead>
<tr>
<th>Clinical Course</th>
<th>Required Clinical Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO 1060 DMS Clinical Sonography I</td>
<td>144</td>
</tr>
<tr>
<td>DMSO 1101 DMS Clinical Sonography II</td>
<td>208</td>
</tr>
<tr>
<td>DMSO 1102 DMS Clinical Sonography II</td>
<td>72</td>
</tr>
<tr>
<td>DMSO 2031 DMS Clinical Sonography III</td>
<td>72</td>
</tr>
<tr>
<td>DMSO 2032 DMS Clinical Sonography III</td>
<td>328</td>
</tr>
<tr>
<td>DMSO 2050 DMS Clinical Sonography IV</td>
<td>408</td>
</tr>
<tr>
<td><strong>Total Clinical Hours</strong></td>
<td><strong>1232</strong></td>
</tr>
</tbody>
</table>

**Tardy/Absence from Clinical:** Students must contact his/her clinical instructor at least 30 minutes prior to starting time when it appears that they will be tardy or absent. A tardy will be reflected on the time sheet. A student must stay at the clinical affiliate late that day to compensate for the missed time. If the student is over ten minutes late, an absence will be recorded for the first hour of the assignment. **Refer to each Clinical Syllabus for the complete participation policy via the Professionalism heading.**

If the student is going to be **absent**, he/she MUST contact DMS faculty AND the clinical instructor at
least 30 minutes prior to the scheduled assignment time. DMS faculty can be notified via telephone between the hours of 7:30 am and 8:00 pm and via email at other times. Any absence must be made up on the students own time, prior to the end of the semester. A clinical absence form must be turned in to the Program Director on the next class day with a plan to make up the missed clinical time.

Contact information for the clinical affiliates and DMS Faculty is provided in the student DMS Clinical Notebook. The student should leave an appropriate message on the voice mail system if no one is available to take the call at the affiliate. Students are required to contact the Program Director and their assigned clinical coordinator for the rotation. Faculty may be contacted via email, phone, or cell phone (at appropriate times).

Kim Strong; Program Director....................... (O) 678-226-6701; (C) 706-224-1331
Kara Caldwell: Clinical Coordinator............. (C) 706-614-5549
Miranda Palmer: Assistant Clinical Coordinator...(C) 404-723-4804

This policy is applicable at all times and calls must be made by the student himself or a responsible party. Failure to call in when absent or tardy will result in a reduction of the student's Professionalism category of the clinical grade. Clinical Instructors (CI) will notify the school if a student is absent and was not notified.

The GTC DMS program does not schedule days off from clinical unless the day is a Federal holiday in which the college is closed. Sometimes the Program Director will use a clinical day for testing purposes. These days will not have to be made up. There are no clinical absences built into the program. Students will not graduate unless they meet the required number of clinical hours. The GTC DMS faculty will review extenuating circumstances on a case by case basis.

Scheduled absenteeism (e.g. appointments, vacations, marriages, etc.) should be reserved for periods when classes are not in session.

5.7 Clinical Hours
The GTC DMS program does not follow a “banking of clinical hours” policy. Clinical hours are set and must be met as prescribed in each DMSO clinical course syllabus. Clinical assignment hours are from 8:00 a.m. to 4:30 p.m. with a half hour lunch, making clinical days 8 hours in duration. Some clinical affiliates may require that you adjust your clinical hours to 7 a.m. – 3:30 p.m. or other time frame due to their departmental hours of operation. Some clinical assignments may require students to attend second shift clinical hours.

Alterations to Clinical Schedule: There are times when extenuating circumstances arise at the clinical sites. If the clinical site requests that a student alter their day or time to be of assistance to the site or to provide more learning opportunities, the student must submit a written request (in person or via email) to the Program Director AND Clinical Coordinators before moving forward with alteration of clinical days and times.

5.8 Inclement Weather Policy
In the case of Inclement Weather, students should listen to 95.5 FM for area weather watches and warnings, school closings, etc... If the college closes due to inclement weather, DMS faculty will email students information and assignment instructions. Students will be held accountable for the information
contained in the email unless there is proof of a power outage or internet interruption.

5.9 Personal Appearance
The personal appearance and demeanor of GTC Diagnostic Medical Sonography students reflects both the college and program standards and are indicative of the student's interest and pride in their profession. Any student reporting to their clinical rotation in improper (soiled, untidy, dirty shoes, etc.) uniform, will be sent home by the clinical supervisor, CI, or DMS faculty. The Professionalism demerit system will be used for improper attire issues (see course syllabus for details). The uniform dress code is mutually agreed upon by the program faculty, program advisory committee, and the clinical affiliates. DMS Students must have the GTC Health Science patch attached on the left upper sleeve.

1. Physical Appearance:
   ♦ Clean, neat, and appropriate hairstyle. Hair, chin (angle of mandible) length or longer must be completely pulled back into a professional manner. Bangs must be clipped back so as not to interfere with daily duties.
   ♦ Fingernails will be short, neat, and clean and NATURAL. Nails are not to extend beyond the finger pads. Long and sculptured nails are breeding places for infectious microorganisms and are not acceptable. No colored polish can be used.
   ♦ Perfume and cologne should not be worn, strong scents are offensive to patients &/or coworkers.
   ♦ Daily body cleanliness and appropriate deodorant or antiperspirant must be used.
   ♦ Men must be clean shaven or have a neatly trimmed beard &/or moustache.
   ♦ Tattoos and body piercings must not be visible while on clinical assignment.

2. Clinical Attire:
   ♦ GTC DMS scrubs are selected by the faculty (assigned by class) with same color warm up jacket. The program pays for the required GTC DMS embroidery on the first 3 scrub tops/jackets. White, gray, or black long sleeve t-shirts may be worn under the scrubs.
   ♦ Clean, polished, solid athletic shoes only. No high tops, open back, or clog-type shoes are allowed.
   ♦ White, gray or black athletic type socks MUST be worn.
   ♦ Undergarments will not show through, over or under your uniform.
   ♦ All uniforms are to be clean and pressed.
   ♦ Jewelry is dangerous to both the student and the patient. One ring (wedding band or class ring), and one watch with a second hand may be worn. One pair of earrings, not longer than the earlobe, one earring per each ear ONLY. Any and all other body piercing or body jewelry must not be visible while on clinical assignment.

5.10 Liability Insurance
All students are required to purchase liability insurance through GTC in order to participate in clinical education. This insurance is purchased as part of registration for clinical courses and is assessed on a yearly basis so students will pay for it twice while in the DMS program. The insurance policy extends coverage only to experiences associated with the clinical education phase of the diagnostic medical sonography program. Thus, the policy does not cover the student in a private employment situation outside of the clinical assignments.
5.11 Student Injuries/Exposure to Communicable Disease
The program faculty or health science secretary should be notified immediately should any student, while on clinical assignment, suffer an injury which requires medical attention. Students are guests in each CEC and are therefore responsible for securing and financing any medical treatment required as a result of accidental injury on clinical assignment. The student must realize that although a CEC may offer or suggest that the student receive treatment within the facility, a bill for any and all services rendered may result.

For injuries or health problems during clinical assignments that require treatment but are not life threatening, the student should consider the following two options.
   A. Treatment from an independent physician and/or facility of the student’s choice at a cost to the student.
   B. Treatment from the staff of the CEC, if offered, with subsequent billing for services rendered.

For injuries that expose the student to a possible infectious disease/blood borne pathogens such as needle stick or other exposure to communicable diseases, the program faculty must be notified immediately. Follow-up and treatment may be done by the CEC or by GTC at no cost to the student.

Accident insurance is available to students for purchase at a group rate. Applications and information are available in the GTC Business office.

5.12 Clinical Performance
   A. Clinical Instructors (CI) for the Diagnostic Medical Sonography program are identified for each clinical affiliate. In order for a CI to sign any competency check-offs, they must be credentialed in that specific area. The role of the CI is to manage, direct, and evaluate student learning experiences and imaging skills during the student’s clinical rotation. Also, to serve as liaison between the affiliate and DMS faculty regarding the clinical aspect of the program.

   Students should consult the CIs for:
   - instruction and guidance
   - evaluation of progress and skills
   - demonstration of skills
   - supervision in performance of procedures
   - basic patient care
   - emergency procedures of the clinical affiliate and department
   - advisement regarding specific clinical incidents/problems

   B. When an initial rotation at a clinical affiliate has begun, the student should report to the CI for orientation to the department and facility. This is done in order to inform the student of any policies, procedures, or routines unique to that department and/or facility. There is an orientation form REQUIRED to be completed for each rotation at an affiliate.

   C. Students will be evaluated by the supervising technologist for imaging and technical skills, as well as on their professional development/work ethic traits. This evaluation grade will be incorporated into the student’s clinical education grade.

   D. Until a student achieves the program’s required level of competency as shown by successful completion of the appropriate critical competencies (refer to course syllabus), all clinical assignments should be carried out under the direct supervision of a qualified sonographer as
defined by the following.

1. Student supervision by a qualified sonographer who reviews images in relation to the student’s achievement, evaluates the condition of the patient in relation to the student’s knowledge, *is present in the room during the exam*.

2. Student supervision may consist of reviewing the images taken by the student but not included in the diagnostic exam prepared for the radiologist or physician.

3. For a student who is performing with indirect supervision on those exams for which he/she has program approval (passing of benchmark evaluations), a qualified sonographer is to be available in the vicinity to assist and to review sonographic images.

E. It is at the discretion of the clinical affiliate when they allow students to complete exams under indirect supervision.

F. In the absence of the CI, students should interact with the person assuming the responsibilities of the CI or the supervising technologist. Each CI will identify the specific person to the students and faculty.

G. In addition to complying with GTC policies, students must comply with the code and policies and procedures of the Clinical Affiliate to which they are assigned.

H. Familiarize yourself with HIPAA rules and regulations as presented in each clinical affiliate’s orientation packet. These must be followed at all clinical affiliate sites. Students are expected to maintain the confidentiality of a patient in a professional manner. All hospital and patient records are confidential in nature. All requests for such information should be referred to the CI or supervising technologist.

5.13 Conduct in Clinical Education Centers

The Diagnostic Medical Sonography program reserves the right to refuse admission and/or program continuation to any student who is involved in any activity considered unprofessional or not conducive to proper patient care.

**Misconduct** is defined as; deliberate violation of a standard or improper behavior (Webster’s); and is characterized by the following behaviors during clinical time:

1. Non alert condition.
2. Improper uniform.
3. Possession of drugs or alcohol.
4. Under the influence of drugs or alcohol.
5. Sleeping during clinical time
6. Theft from the CEC.
7. Immoral conduct as defined by the CEC rules & regulations, the GTC Student Handbook, and the SDMS Code of Ethics (included in this document).
8. Smoking in prohibited areas.
9. Chewing gum in patient care areas.
10. Eating or drinking in prohibited areas.
11. Extended breaks or lunch times.
12. Excessive use of department telephones for personal use.
13. Refusing to do "given tasks" within the realm of capabilities or scope of practice.
14. Performing tasks that are "not within the realm" of capabilities or scope of practice.
15. Forgery/falsifying any record of participation or evaluation tool.
16. Acceptance of gratuities from a patient, patient's family, or physician.
17. Leaving patients unattended while under your care.
18. Leaving the assigned area or the affiliate without permission from the CI.
19. Use of personal electronic device while on duty.

Explicit Sonography Misconduct
1. Do not question the sonographer about any abnormality you might have observed in front of the patient.
2. Do not invade the CI's personal space. Ask for clarification on where they would like you to stand during observation.
3. Do not state to the CI that you were not taught to do something the way they are doing it or that you were not taught something. Simply learn from their experience. You should discuss any imaging differences with DMS faculty to ensure that all parties are using the same thought process. This is how the program can learn new protocols or physician imaging requests.
4. Do not hover when the schedule permits some down time. Ask for a task or find an area to study.
5. Do not ask to “friend” any CI on Facebook or other social network. You are a student and are not permitted to have social relationships with CIs at this time. If you are asked by a CI to join their social group, you must respectfully decline.
6. Do not engage in any kind of gossip or repeat gossip including that about other sonographers, affiliates, DMS faculty, fellow students, other sonography students or program students. (Gossip- a conversation involving malicious chatter or rumors about other people.)
7. Do not argue with a CI when they are giving you constructive criticism. If you deem the criticism as anything else you should discuss the matter with DMS faculty. They will decide any interference on their part is necessary.
8. Do not make excuses when your technique or imaging is being critiqued. You should make a statement so the CI knows you heard them and understand what they were trying to explain to you. Remember that repetitive complaints can get you dismissed from the program.
9. Leave your baggage at the door. It is in your best interest to always “put on a happy face” and approach each clinical day with a positive attitude.

Reported Misconduct
Should any formal complaints be registered against a student regarding his/her conduct, the student shall be notified and consulted for clarification and possible resolution. Appropriate action will be taken depending on the severity of the incident. If the incident does not require immediate dismissal, a record will be maintained for each incident and their Professionalism score will reflect the misconduct. Upon receipt of the second formal complaint (regardless of topic) against any one student, that student will be placed on conduct probation. At the end of this designated time period, the student shall be re-evaluated for eligibility to continue in the program. Failure to comply with any stipulation applied to the probation period constitutes ground for recommended dismissal.

5.14 Clinical Participation on “Days Off”
Clinical Education Policies dictate that students are to attend clinic as assigned by the clinical
coordinator.

Section 5.2 Clinical Assignments: “Assignments cannot be changed without permission from the Clinical Coordinator.”

Section 5.6 – Clinical Participation: “Students will be required to attend all clinical assignments as scheduled by the Clinical Coordinator.”

Also Clinical Education Policies give some explanation of why program faculty must be in control of clinical assignments.

Section 5.10 – Liability Insurance: “The insurance policy extends coverage only to experiences associated with the clinical education phase of the DMS program. Thus, the policy does not cover the student in a private employment situation outside of the clinical assignments.”

Section 5.11 – Student Injuries: “The program or school office should be notified immediately should any student, while on clinical assignment, suffer an injury which requires medical attention.” … “For injuries that expose the student to a possible infectious disease (e.g. needle stick) the program faculty must be notified immediately.”

The program’s design and clinical assignments will allow all students to achieve appropriate competency check-offs during the scheduled clinical times. However, program faculty understands that students may desire to gain additional clinical experience. The program neither encourages nor discourages students to attend clinic on unassigned days for this additional experience.

If a student desires to attend clinic on days that are not scheduled by the clinical coordinator that student must make their request in writing to either the clinical coordinator or program director. Verbal approval from the clinical affiliate should be sought prior to the inquiry with DMS faculty. The student may only request to spend this time at their current clinical assignment. The student must be registered and have paid for the next clinical course. Faculty will verify with the clinical instructor at the specific clinical site that the student is welcome during the requested time.

If the clinical instructor and clinical coordinator agree that this is an appropriate request the student will be allowed to be present at the clinical site and all clinical education policies must be followed. Also, appropriate time sheet documentation must be turned in to the clinical coordinator upon completion of requested time.

5.15 Responsibilities of Students during Clinical Rotations

- Arrive at the clinical site ready to begin at the scheduled time and dressed appropriately.
- Challenge yourself to learn the basic routine of the department. Refer to the schedules and anticipate the types of examinations to be performed.
- Be assertive in requesting time to scan a variety of patients within the clinical setting. Some days are very busy and sonographers must meet the needs of the patients and of the facility. Scanning on the busy days may not be possible, depending on your skills, but by paying attention to the sonographer, patient, and exam, students will absorb valuable information.
- Scan time is a privilege and is earned by demonstrating confidence, knowledge of anatomy and protocols, and IMPORTANTLY imaging speed and accuracy.
- Try new types of examinations when available, even if they are not yet assigned — scanning is a process that is learned by doing.
- Never ask inappropriate questions in front of a patient, such as pathology seen on the exam or related pathology, why a sonographer is performing an exam in a specific manner, or if the sonographer is following protocol. This type of behavior has been thoroughly discussed and role-
played in classroom laboratories in the first semester of DMS instruction and will not be tolerated. This may be reported as a misconduct infraction.

- **Ask for assistance** from the clinical instructor when it is needed, being sensitive to the patient being scanned.
- **Never leave a patient unattended** that needs your attention. Both side rails of the stretcher must be at full height if the patient is left alone for any permissible reason.
- Ask for review or critique of the sonographic images with the clinical instructor at the end of an examination AFTER the patient has left the department. Exams can be reviewed at a later time, or when the DMS faculty is doing clinical site visits.
- **Accept constructive criticism as a learning tool** and adjust your skill accordingly.
- **NEVER release a patient before the sonographer has determined the examination is complete.**
- Take primary responsibility for mastery of the skills assigned within the GTC DMS Clinical Notebook.
- Act as a **team player** whenever you are in a clinical facility.
- **Remain calm under stressful situations.**
- Review each clinical syllabus to make sure you are learning what is required.
- What about “free” time?

**BE POSITIVE!** Do not complain about the program, your grades, or other personal complaints.

- There will be periods of time while on-duty when there are no imaging procedures to be performed in the assigned room. Such so-called “free-time” should be used as follows:
  1. Take the initiative to see if someone else needs help in another room.
  2. Stock supplies wherever necessary.
  3. Clean the equipment as needed.
  4. Practice sonography skills with another student or staff member.
  5. Review studies on the ultrasound equipment or PACS system if permitted.
  6. Ask to review their teaching files.

### 5.16 Grading for Clinical Courses

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
<th>Semester 1</th>
<th>Semester 2-3</th>
<th>Semester 4-5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Affiliate Evaluation</td>
<td>10%</td>
<td>8%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Faculty Site Evaluations</td>
<td>25%</td>
<td>22%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>DMS Clinical Notebook</td>
<td>20%</td>
<td>15%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Benchmarks/ Scan Quizzes/ Portfolios/</td>
<td>25%</td>
<td>15%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>DMS Faculty Midterm and Final Evals</td>
<td>20%</td>
<td>20%</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>Complete Exam Requirement</td>
<td>20%</td>
<td>20%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Level 5 Critical Comps</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td></td>
</tr>
</tbody>
</table>

*If not ready for Rot 6- reverts to rot 5 criteria
*If ready but none completed, 80% grade given
*If all completed prior and satisfactory, 95% given

### 5.17 Clinical Journal

As a junior, students will submit a weekly journal entry. Failure to submit entries or meet criteria will result in professionalism score demerits. These journals are private - only the student and the DMS faculty will read the entries. Any concerns or challenges will be discussed. The purpose of these
The purpose of the **GTC DMS Clinical Notebook** is to provide documentation of adequate and expected progression in the clinical component of your DMS education. The completed **GTC DMS Clinical Notebook** is a formal record of your clinical progression and competency requirements. The information within is the RESPONSIBILITY OF THE STUDENT.

### A. Documentation:

To insure accuracy of documentation in the **GTC DMS Clinical Notebook** the following rules apply:

1. **All documentation must be in permanent ink.**
2. **Corrections** can only be made by striking out the error, and rewrite the corrected information followed by your initials in a nearby space.
3. The most recent documentation is kept on top in each section of **GTC DMS Clinical Notebook**. The sections should remain in the same order as they were initially presented to the student.
4. **The student’s signature on the participation form indicates the student’s affirmation of accurate and honest information.**
5. **Clinical Participation is documented daily.** Do not ask the Clinical Instructors to back track and initial your form to establish accuracy. This will be considered a form of academic dishonesty and appropriate actions will be taken. (Refer to the GTC student handbook). At the
end of each rotation, the time should be added and written in the appropriate box.

6. Knobology worksheet is required at the beginning of a rotation for rotations 1-5. The worksheet will not be required if the operating system has been previously reviewed twice by the student. These should be completed and placed back in the DMS clinical notebook under the appropriate section.

7. Affiliate Orientation forms are required for every rotation. These should be completed at the beginning of each rotation and placed back in the DMS clinical notebook under the appropriate section.

8. **Student Experience Logs** are a record of your daily clinical interactions. They are divided into specialty areas. These logs must be updated weekly if not daily in MyClinicalHours. Specialty areas are abdomen, small parts/special procedures, pelvic, neonatal/pediatric, obstetrics, and vascular. There is a miscellaneous section for any experiences that are not specifically listed.
   a. NEVER record any patient identifier information. Only record the information required in each column.
   b. Begin each rotation with #1 for the first patient in each specialty area. Begin a new page for each rotation.
   c. Students are to indicate under the corresponding exam column the appropriate interaction level for each exam:
      1- observation only
      2- observation with some scanning involved (pre or post scanning, scanning some of the exam, images included or not)
      3- Complete exam scanned, images included in study for patient record or not.

B. **Level III Critical Competencies: Clinical Check-offs**

Beginning rotation 1, certain competency requirements will be assigned. Only ARDMS credentialed clinical instructors in the specialty area may check-off on the AB or OB/GYN specific competencies. The purpose of these competencies is to demonstrate progression and eventual consistent performance of all of the key components of the required proficiency. Meeting the competency requirement each rotation is a component of the clinical grade.

1. The CI will circle to appropriate number in each proficiency area that reflects their rating of the students imaging performance. These areas are defined in your clinical notebook.
   1- Developing
   2- Acceptable
   3- Consistently Reproducible

2. The students decides when to ask for proficiency/competency check-offs.
   a. Do not question the CI’s rating of your performance.
   b. Students should give themselves a couple of weeks to become oriented to the affiliates protocols and expectations prior to asking for check-offs.
   c. Do not wait until the last days of the rotation to ask for check-offs. It is the student’s, not the CI’s, responsibility to make sure the check-offs are completed.

3. As the student strives to master the proficiencies to the level of performance necessary for accurate, safe, and effective scanning behavior of a developing sonographer, supervision is DIRECT.

4. Student progress from **Direct to Indirect Supervision** level as they prove their
imaging and technical skills to the clinical affiliate CI’s. The level at which students are permitted to participate is at the discretion of the clinical affiliate. Passing their Benchmarks assures the clinical affiliates that GTC DMS faculty attests that the student is ready for Indirect Supervision at their discretion.

a. Direct supervision- clinical instructor is always present during an exam. Directly assist the student while scanning, either verbally or physically assisting with hand coordination and technique.

b. Indirect Supervision- clinical instructor may be present during the entire exam or part of the exam. The CI will always scan the patient before or after the student. The patient should not be dismissed until confirmation with the CI.

5. By the middle of the fourth (4th) semester, (end of rotation 5) the DMS student should have received a competency score of 3 in all required proficiency areas. This means the student can consistently complete entire examinations.

6. If a student is awarded a “3” in a competency during rotations 2 or 3, the student will be required to earn a score of “3” in each competency again during rotations 4 or 5. Once a score of “3” is achieved twice, the student has completed the competency and does not need to repeat the competency again. Students will track their progression on the competency tracking log in the clinical notebook.

7. If the student does not meet this criterion, he/she will be permitted to achieve that goal by the end of the 6th rotation which is also the end of the fourth semester. Having to complete the Level III requirement in rotation 6 does add time constraints for student to meet the Level III requirements. Once the Level III requirements have been met in rotation 6, the student may progress to Level V.

8. Optimal progression allows the student to begin the Level V Critical Competencies in Rotation 6. This will give the student 3 rotations to meet the requirements of this level.

9. When a student receives credit for a complete exam but does not fulfill the competency requirement for the content in the exam in a semester, there will be no leniency in the competency requirement. It will be deemed as incomplete and could result in a failing clinical grade.

10. Failure to meet Level III Critical Competency requirements by the end of rotation 6 will result in an “F” for that clinical course and immediate dismissal from the program.

C. Program Flexibility: DMS students work on specific assigned proficiencies in their own time-frame within the limits of the semester requirements. Completion of proficiencies and clinical competencies are designed to coincide with didactic instruction. Students must set his/her goals at an appropriate rate (accomplishing the semester requirements) to receive a passing grade.

Competencies or specific objectives within the proficiencies not required by the program are marked N/A in the appropriate spaces by GTC faculty only. Note that some competencies are covered in the classroom and textbook (example, prostate) but are not typically performed by the ultrasounds departments in our area. DMS students are responsible for the didactic education as well as theories of application, system settings, including appropriate transducer, Color, Doppler, and AIUM standard protocols.

D. Master List of Competency Requirements
This can be found in your clinical notebook. GTC Clinical Coordinator or Program Chair will review clinical requirements prior to the beginning of a clinical rotation. The student should develop a
personal plan to complete the assigned tasks within the assigned clinical environment. Always refer to the Master Competency List when making your plan.

1. If the assigned competencies allow choices within a certain category of proficiencies, choose the specific proficiencies on which to concentrate early in the rotation period.
2. Review the performance objectives associated with the proficiencies assigned.
3. If you feel you are not obtaining check offs in a timely manner, meet with the Clinical Coordinator and review the progress documented in your *GTC DMS Clinical Notebook*. Ask for suggestions to insure optimal opportunities to achieve proficiencies.
4. Regularly review and self-assess your ability to meet all the competencies. Self-assessment and questioning is a necessary component of becoming a professional sonographer.
5. Discuss your self-assessments with the Clinical Instructor or DMS faculty and ask for assistance in mastering competencies with which you are having difficulty.
6. Work on additional skills or unassigned proficiencies as opportunities arise. Request full or partial assessment of these proficiencies from the Clinical Instructors as they are mastered (consistently reproducible).

E. Clinical Instructor Evaluation of the Student
At the conclusion of each rotation, the student sonographer will receive a written performance evaluation from the qualified sonographer who supervised the student during the evaluation period. If there was more than one supervisor during the period, each supervisor may perform an independent performance evaluation. Question 9 and 10 of this evaluation are considered critical competencies and will warrant further investigation as to whether or not the student is progressing at the expected level.

The evaluation form and process will measure three aspects of learning:

1. Cognitive learning - refers to knowledge gained in the classroom through lecture and demonstrations of various concepts and to the background information needed to understand a concept. Usually, cognitive learning precedes the other two aspects of learning.
2. Psychomotor learning - hands-on learning. This occurs in the campus lab and in the clinical environment. Successful psychomotor learning usually requires a certain level of cognitive information.
3. Affective learning - involves attitudes, values, and feelings. Affective learning occurs in both the cognitive and psychomotor environments.

This form should be given to your CI two weeks prior to the completion of the rotation. The CI will place the evaluation in a sealed envelope and the student will deliver it the DMS faculty, may be faxed or emailed. In some instances, DMS faculty may collect the evaluation forms. Students will sign the evaluation during their end of rotation conference with DMS faculty. When the student receives the evaluation form from the program faculty, the student should review the comments of the supervisor and discuss with faculty any items where a less than desirable response is evident so that any problem area can be corrected before the next evaluation.

F. Student Evaluations of the Clinical Affiliate: This form must be filled out completely at the end of each rotation. This is the student’s opinion about the Clinical Affiliate as it relates to their clinical experience. This should be completed and placed back in the DMS clinical notebook under the appropriate section.
G. Student Self Evaluations: The purpose of this form is to confirm that the student is setting realistic goals and is progressing in presumed areas of weakness. It also serves to help faculty understand how the students feels about their own progression in the DMS program. This should be completed at the end of each semester (except for summer) and placed back in the DMS clinical notebook under the appropriate section.

5.19 Benchmarks: Challenge of a Previous Passed Critical Competency

A. During semesters 2-4, benchmarks will be incorporated into the student’s clinical grade since these scanning tests are a direct reflection of their utilization of clinical time and imaging progression. Once all benchmarks have been passed, the student will receive a certificate that states they are progressing toward the graduate level in the program. At the Affiliate’s discretion, they may be allowed to perform examinations under Indirect Supervision.

B. Challenge proficiency: If the DMS faculty or Clinical Instructor observes less than entry-level performance of a previously approved competency, the supervising sonographer may challenge the proficiencies. All of the proficiencies for that competency must be met satisfactorily.
   1. The student will be required to repeat the Benchmark Competency GTC DMS faculty at a clinical site or in the GTC DMS lab (to be determined by the DMS faculty).
   2. Failure to meet the level of competency required during this scan will result in failure of the repeated Benchmark. This would mean the student has not met the critical competency requirements and be dismissed from the program.

5.20 Level V- Critical Competencies

This level consists of student’s performing diagnostic studies at their clinical site. If an exam is turned in and is not passed, the exam cannot count as a complete exam.

A. Students will be required to scan a series of complete exams either in the presence to DMS faculty or put on disk and tuned into faculty.
B. The exams will be performed using the GTC DMS protocols unless special permission is granted to do otherwise.
C. Mastery of the competencies is proven when the level of performance necessary for entry-level sonography is demonstrated. Progression reflects Indirect Supervision advancing to Graduate Level.
D. The Level 5 Critical Competencies must be passed with a grade of 85 or better to graduate from the GTC DMS Program.
E. If a Student does not pass the Level 5 Critical Competency the first time, he/she will be given a second opportunity with the highest possible score being a 70.
F. Failure to pass the Critical Competency on the second attempt will result in failure of the clinical course and subsequently, dismissal from the program as a result of the DMS program required passing of all critical competencies.

Level 5 Critical Competencies
- Right Upper Quadrant
- Compete Abdomen
- Renal
- Thyroid
- Pelvic TA
- Endovaginal Exam
OB (2nd/3rd trimester)

5.21 Complete Exam Requirement
During rotations 4-8, students will be required to scan an assigned number of complete exams as part of their clinical grade.

A. Complete Exam Clarification
- An exam that is scanned in its entirety following GTC DMS protocols or the affiliate’s protocols.
- Students should have scanned at least 20 minutes, making adequate progress through the protocol. Adequate progress will be at the clinical instructor’s discretion but should have gotten through MAJORITY of the protocol. (Example: RUQ- student should have scanned the liver, GB including CBD, and pancreas. Maybe they didn’t get through the entire kidney.)
- The images acquired by the student do NOT have to be included in the exam read by the physician. The study can be pre or post scanning.
- The chart below shows the rotation requirements. It is subject to change.

<table>
<thead>
<tr>
<th>Complete Exam Minimum Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotation 3</td>
</tr>
<tr>
<td>Rotation 4</td>
</tr>
<tr>
<td>Rotation 5</td>
</tr>
<tr>
<td>Rotation 6</td>
</tr>
<tr>
<td>Rotation 7</td>
</tr>
<tr>
<td>Rotation 8</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

B. Beginning in rotation 5, if pathology is missed, the student cannot count the exam as a complete exam.

C. Final Semester/Rotations 7-8: Definition of Complete Exam
- An exam that is scanned in its entirety following GTC DMS protocols or the affiliate’s protocols.
- The images acquired by the student do not have to be included in the exam read by the physician as not every sonographer is comfortable submitting student images regardless of quality.
- Signing off on complete exams is at the discretion of the clinical instructor.

D. Additional Requirements
- Students must have at least 3 complete Scrotal exams by the end of rotation 8.
- Student clinical assignments are taken into account when analyzing the actual grade component for this criteria.
- DMS Faculty reserves the right to set complete exam requirements in terms of number and types of exams for individual students as progression is reviewed.
- There must be a diverse portrayal of complete exam experience.
Section 6: APPENDIX
6.1. Commission on Accreditation of Allied Health Education Programs Standards and Guidelines for the Accreditation of Educational Programs in Diagnostic Medical Sonography

These accreditation Standards and Guidelines are the minimum standards of quality used in accrediting programs that prepare individuals to enter the Diagnostic Medical Sonography profession. Standards are the minimum requirements to which an accredited program is held accountable. Guidelines are descriptions, examples, or recommendations that elaborate on the Standards. Guidelines are not required, but can assist with interpretation of the Standards.

The full document can be found at: https://caahep.org/CAAHEP/media/CAAHEP-Documents/DMSStandards.pdf

6.2 JRCDMS Educational Standards

The Joint Review Committee on Education in Diagnostic Medical Sonography (JRCDMS) reviews the program’s educational content and process based on nationally recognized educational STANDARDS. Program accreditation is required for students to be eligible to sit for the ARDMS registry examinations for national certification. The JRCDMS National Education Curriculum can be found at this website: http://jrcdms.org/nec.htm

The NEC was developed collaboratively and endorsed by sonography-related organizations. Those organizations that have formally endorsed the NEC are identified with the “†” symbol. Supporting organizations are identified with the “*” symbol.

- American College of Cardiology (ACC)†
- American College of Obstetricians and Gynecologists (ACOG)*
- American College of Radiology (ACR)†
- American Institute of Ultrasound in Medicine (AIUM)*
- American Registry of Diagnostic Medical Sonography (ARDMS)*
- American Registry of Radiologic Technologists (ARRT)*
- American Society of Echocardiography (ASE)†
- American Society of Radiologic Technologists (ASRT)*
- Cardiovascular Credentialing International (CCI)†
- Joint Review Committee on Education in Cardiovascular Technology (JRC-CVT)*
- Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS)†
- Society of Diagnostic Medical Sonography (SDMS)†
- Society of Radiologists in Ultrasound (SRU)†
- Society for Vascular Surgery (SVS)†
- Society for Vascular Ultrasound (SVU)†
## 6.3 GTC DMS Program Critical Competencies

<table>
<thead>
<tr>
<th>Semester 1:</th>
<th>Level 1 Critical Competencies: Scan quizzes and portfolio due on each organ system (6). Must pass with a 70 or better.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to imaging techniques, anatomy and sonographic appearance. Abdominal organ systems only.</td>
<td>Semester 2: Moves into more advance imaging skills for abdominal organ systems and pathology. Students begin pelvic sonography and first trimester OB. All three areas include physiology as well as pathophysiology and the sonographic appearance of all.</td>
</tr>
<tr>
<td>Level 1 Critical Competencies: Pelvic Scan quiz, Endovaginal scan quiz, and First trimester scan quiz</td>
<td>Level 2 Critical Competencies: Benchmarks for all abdominal organ systems (6). Students scan one organ system while a faculty member observes and grades on affective, cognitive, and psychomotor skills. Students must pass all Level 2 benchmarks with a 70 or better in order to pass the class.</td>
</tr>
<tr>
<td>Semester 3: Maintaining abdominal skills. Refining pelvic and obstetric imaging skills. Begin learning vascular sonography.</td>
<td>Semester 4: Students begin formal obstetric didactic and imaging skills in normal and abnormal sonographic appearance and pathophysiology. Must maintain levels demonstrated in abdominal and pelvic imaging or have to repeat benchmarks in those areas.</td>
</tr>
<tr>
<td>Level 1 Critical Competencies</td>
<td>Level 2 Critical Competencies Carotid and Lower Extremity Venous scan quizzes</td>
</tr>
<tr>
<td>Carotid and Lower Extremity Venous scan quizzes</td>
<td>Level 2 Critical Competencies Benchmarks for Pelvic, Endovaginal and First Trimester imaging skills.</td>
</tr>
<tr>
<td>Level 3 Critical Competencies Begin</td>
<td>Level 3 Critical Competencies Clinical Competency check-offs for specific organ systems already taught. Required. Must obtain a score of “3-consistently reproducible” in all areas in order to move onto Level 5 Critical Competencies.</td>
</tr>
<tr>
<td>Level 4 Critical Competencies- RUQ</td>
<td>Level 4 Critical Competencies- All of these competencies must be passed with a 75 or higher.</td>
</tr>
<tr>
<td>Level 5 Critical Competencies Students must perform complete sonographic examinations on real patients while observed by the clinical coordinator or clinical instructor. These exams may be turned in on a disc from the clinical site. All 7 of these competencies must be passed with an 85 or higher.</td>
<td>Semester 5: Students pass final critical competencies to prove they are performing at entry level status.</td>
</tr>
<tr>
<td>The GTC DMS Program’s Student Clinical Notebook is considered a critical competency every rotation and must earn a grade of at least 70%. Failure to do so will result in failure of the clinical course.</td>
<td></td>
</tr>
</tbody>
</table>
6.4 Model JOB Description: Staff sonographer

I. Position Summary
The Staff Sonographer functions as a healthcare provider who, working under the delegated authority of the supervising physician, serves as a medical imaging professional providing clinically relevant information to assist the physician with the diagnosis and treatment of patients. The Staff Sonographer role and responsibilities include providing diagnostic medical sonography services and its various clinical specialties. The Staff Sonographer activities are performed consistent with their education and training, and in accordance with facility policies and procedures and applicable professional standards.

The Staff Sonographer essential functions are categorized as:
- **Primary Responsibilities** (core competencies and/or skills that typify the work of the Staff Sonographer); and
- **Other Responsibilities** (optional functions that may also be required of the Staff Sonographer).

II. Qualifications
Qualifications for the Staff Sonographer position include:
- Sonography education, training, and experience in the specialty area(s) to be performed.
- Demonstrated competence in the specialty area(s) to be performed, including sonographer certification by the American Registry for Diagnostic Medical Sonography (ARDMS), American Registry of Radiologic Technologists (ARRT), and/or Cardiovascular Credentialing International (CCI).
- Demonstrated commitment to professional growth and lifelong learning (e.g., continuing medical education in the specialty area(s) performed, higher education, research, staff training, etc.).
- Demonstrated proficiency with computer skills and software programs used for documentation activities and report generation.
- State sonographer licensure, where applicable.

III. Essential Functions

Performance of Sonography

Primary Responsibilities
- Prepare exam room and ultrasound equipment to conduct sonography examinations in accordance with infections disease, sterilization, and patient safety protocols, policies, and procedures.
- Assume responsibility for the safety of the patient during the sonographic examination.
- Review patient medical history and supporting clinical information.
- Ensure that the sonography examination order is complete, contains relevant information, and meets the standard of “medical necessity.”
- Evaluate any contraindications, insufficient patient preparation, and the patient’s inability or unwillingness to tolerate the examination and associated procedures.
- Communicate with the patient in a manner appropriate to the patient’s ability to understand.
- Use proper patient positioning tools, devices, equipment adjustment, and ergonomically correct scanning techniques to ensure patient comfort and safety, and to prevent compromised data acquisition and musculoskeletal injury to the sonographer.
- Conduct patient clinical assessment and perform the diagnostic medical sonography examination ordered by the supervising physician in accordance with professional and facility protocols.
- Apply independent, professional, ethical judgment, and critical thinking to safely perform diagnostic sonography procedures.
- Apply independent judgment during the sonography examination to ensure that appropriate anatomical, pathological, and clinical conditions are accurately captured in the examination images.
- Except as authorized by written facility policies and procedures, refer specific diagnostic, treatment or prognosis questions to the appropriate physician or healthcare professional.
• As necessary, acquire additional ultrasound imaging to facilitate optimum diagnostic results for the interpreting physician.
• Identify and document any limitations to the sonography examination.
• Review examination images, synthesize examination results, and prepare the preliminary findings.
• Except as authorized by written facility policies and procedures, refer specific diagnostic, treatment or prognosis questions to the appropriate physician or healthcare professional.
• Maintain patient privacy and confidentiality in accordance with privacy laws (e.g., HIPAA) and facility policies, and procedures.
• Adhere to accepted professional and ethical standards.
• Provide patient services consistent with the Scope of Practice and Clinical Standards for the Diagnostic Sonographer.

Other Responsibilities
• Provide preliminary report of sonography examinations for use by the interpreting physician.
• Assist with the daily operation of the sonography facility.

Equipment Use and Maintenance

Primary Responsibilities
• Perform quality control procedures to ensure that the ultrasound equipment operates at optimal levels.
• Exercise responsibility to ensure that the ultrasound equipment is functioning accurately.

Other Responsibilities
• Assume responsibility for the preventive maintenance program for ultrasound equipment.

Documentation and Reporting

Primary Responsibilities
• Document any incidental findings that might impact patient safety or patient care and provide that information to the interpreting physician.
• Operate the Picture Archiving and Communication System (PACS).

Other Responsibilities
• Exercise responsibility for the maintenance and accuracy of facility reports, database records and logs.

Quality Assessment/Quality Improvement

Primary Responsibilities
• Ensure that the sonography examination results meet the facility standards for Quality Assurance before findings are released for interpretation.
• Work with the appropriate staff to ensure quality patient care.

Other Responsibilities
• Carry out Quality Assurance protocols and Quality Improvement measures within the facility.

Health Care Team Interaction

Primary Responsibilities
• Establish and maintain collaborative working relationships with co-workers, administrators, and members of the health care team.
• Foster a collaborative atmosphere with other members of the healthcare team.

Other Responsibilities
• Assist with the education and training of sonography students and physician residents.
6.5 SDMS Clinical Standards for the Diagnostic Medical Sonographer  
April 13, 2015

DIAGNOSTIC MEDICAL SONOGRAPHY CLINICAL STANDARDS
Standards are designed to reflect behavior and performance levels expected in clinical practice for the diagnostic medical sonographer. These clinical standards set forth the principles that are common to all of the specialties within the larger category of the diagnostic sonography profession. Individual specialties or clinical areas may extend or refine, but not limit, these general principles according to their specific practice requirements.

SECTION 1
STANDARD: PATIENT INFORMATION ASSESSMENT AND EVALUATION:
1.1 Information regarding the patient's past and present health status is essential in providing appropriate diagnostic information. Therefore, pertinent data related to the diagnostic sonographic procedure should be collected and evaluated to determine its relevance to the examination.

The diagnostic medical sonographer:
1.1.1 Verifies patient identification and that the requested examination correlates with the patient's clinical history and presentation. In the event that the requested examination does not correlate, either the supervising physician or the referring physician will be notified.
1.1.2 In compliance with privacy and confidentiality standards, interviews the patient or their representative, and/or reviews the medical record to gather relevant information regarding the patient's medical history and current presenting indications for the study.
1.1.3 Evaluates any contraindications, insufficient patient preparation, and the patient's inability or unwillingness to tolerate the examination and associated procedures.

STANDARD: PATIENT EDUCATION AND COMMUNICATION:
1.2 Effective communication and education are necessary to establish a positive relationship with the patient or the patient’s representative, and to elicit patient cooperation and understanding of expectations. The diagnostic medical sonographer:
1.2.1 Communicates with the patient in a manner appropriate to the patient's ability to understand. Presents explanations and instructions in a manner that can be easily understood by the patient and other healthcare providers.
1.2.2 Explains the examination and associated procedures to the patient and responds to patient questions and concerns.
1.2.3 Refers specific diagnostic, treatment, or prognosis questions to the appropriate physician or healthcare professional.

STANDARD: ANALYSIS AND DETERMINATION OF PROTOCOL FOR THE DIAGNOSTIC EXAMINATION:
1.3 The most appropriate protocol seeks to optimize patient safety and comfort, diagnostic quality, and efficient use of resources, while achieving the diagnostic objective of the examination.

The diagnostic medical sonographer:
1.3.1 Integrates medical history, previous studies, and current symptoms in determining the appropriate diagnostic protocol and tailoring the examination to the needs of the patient.
1.3.2 Performs the examination under appropriate supervision, as defined by the procedure.
1.3.3 Uses professional judgment to adapt the protocol and consults appropriate medical personnel, when necessary, to optimize examination results.
1.3.4 Confers with the supervising physician, when appropriate, to determine if intravenous contrast is necessary to enhance image quality and obtain additional diagnostic information.
1.3.5 With appropriate education and training, uses proper technique for intravenous line insertion and administers intravenous contrast according to facility protocol.
STANDARD: IMPLEMENTATION OF THE PROTOCOL:
1.4 Quality patient care is provided through the safe and accurate implementation of a deliberate protocol. The diagnostic medical sonographer:
   1.4.1 Implements a protocol that falls within established procedures.
   1.4.2 Elicits the cooperation of the patient to carry out the protocol.
   1.4.3 Adapts the protocol according to the patient’s disease process or condition.
   1.4.4 Adapts the protocol, as required, according to the physical circumstances under which the examination must be performed (e.g., operating room, sonography laboratory, patient’s bedside, emergency room, etc.).
   1.4.5 Monitors the patient’s physical and mental status.
   1.4.6 Adapts the protocol according to changes in the patient’s clinical status during the examination.
   1.4.7 Administers first aid or provides life support in emergency situations.
   1.4.8 Performs basic patient care tasks, as needed.
   1.4.9 Recognizes sonographic characteristics of normal and abnormal tissues, structures, and blood flow; adapts protocol as appropriate to further assess findings; adjusts scanning technique to optimize image quality and diagnostic information.
   1.4.10 Analyzes sonographic findings throughout the course of the examination so that a comprehensive examination is completed and sufficient data is provided to the supervising physician to direct patient management and render a final interpretation.
   1.4.11 Performs measurements and calculations according to facility protocol.

STANDARD: EVALUATION OF THE DIAGNOSTIC EXAMINATION RESULTS:
1.5 Careful evaluation of examination results in the context of the protocol is important to determine whether the goals have been met. The diagnostic medical sonographer:
   1.5.1 Establishes that the examination, as performed, complies with applicable protocols and guidelines.
   1.5.2 Identifies and documents any limitations to the examination.
   1.5.3 Initiates additional scanning techniques or procedures (e.g., administering contrast agents) when indicated.
   1.5.4 Notifies supervising physician when immediate medical attention is necessary, based on examination findings and patient condition.

STANDARD: DOCUMENTATION:
1.6 Clear and precise documentation is necessary for continuity of care, accuracy of care, and quality assurance. The diagnostic medical sonographer:
   1.6.1 Provides timely, accurate, concise, and complete documentation.
   1.6.2 Provides an oral or written summary of findings to the supervising physician.

SECTION 2
STANDARD: IMPLEMENT QUALITY IMPROVEMENT PROGRAMS:
2.1 Participation in quality improvement programs is imperative. The diagnostic medical sonographer:
   2.1.1 Maintains a safe environment for patients and staff.
   2.1.2 Performs quality improvement procedures to determine that equipment operates at optimal levels and to promote patient safety.
   2.1.3 Participates in quality improvement programs that evaluate technical quality of images, completeness of examinations, and adherence to protocols.
   2.1.4 Compares facility quality improvement standards to external metrics, such as accreditation criteria, evidence based literature, or accepted guidelines.
STANDARD: QUALITY OF CARE:
2.2 All patients expect and deserve optimal care. The diagnostic medical sonographer:
   2.2.1 Works in partnership with other healthcare professionals.
   2.2.2 Reports adverse events.

SECTION 3
STANDARD: SELF-ASSESSMENT:
3.1 Self-assessment is an essential component in professional growth and development. Self-assessment involves evaluation of personal performance, knowledge, and skills.
   3.1.1 Recognizes strengths and uses them to benefit patients, coworkers, and the profession.
   3.1.2 Recognizes weaknesses and limitations and performs procedures only after receiving appropriate education and supervised clinical experience in any deficient areas.

STANDARD: EDUCATION:
3.2 Advancements in medical science and technology occur very rapidly, requiring an on-going commitment to professional education. The diagnostic medical sonographer:
   3.2.1 Obtains and maintains appropriate professional certification/credential in areas of clinical practice.
   3.2.2 Recognizes and takes advantage of opportunities for educational and professional growth.

STANDARD: COLLABORATION:
3.3 Quality patient care is provided when all members of the healthcare team communicate and collaborate efficiently. The diagnostic medical sonographer:
   3.3.1 Promotes a positive and collaborative atmosphere with members of the healthcare team.
   3.3.2 Communicates effectively with members of the healthcare team regarding the welfare of the patient.
   3.3.3 Shares knowledge and expertise with colleagues, patients, students, and members of the healthcare team.

SECTION 4
STANDARD: ETHICS:
4.1 All decisions made and actions taken on behalf of the patient adhere to ethical standards. The diagnostic medical sonographer:
   4.1.1 Adheres to accepted professional ethical standards.
   4.1.2 Is accountable for professional judgments and decisions.
   4.1.3 Provides patient care with equal respect for all.
   4.1.4 Respects and promotes patient rights, provides patient care with respect for patient dignity and needs, and acts as a patient advocate.
   4.1.5 Does not perform sonographic procedures without a medical indication, except in educational activities.
   4.1.6 Adheres to this scope of practice and other related professional documents.