



**MIDWESTERN**  
CAREER COLLEGE

# **DIAGNOSTIC MEDICAL SONOGRAPHY**



**STUDENT HANDBOOK**

Welcome students,

On behalf of all the faculty and staff here at MCC, we would like to welcome you to Midwestern Career Colleges Diagnostic Medical Sonography Program. A Sonographer is responsible for preparing patients for procedures by taking their medical history and answering any questions about the procedure, preparing and maintain diagnostic imaging equipment, operate equipment to obtain diagnostic images or to conduct tests, review images or test results to check for quality and adequate coverage of the areas needed for diagnoses, recognize the difference between normal and abnormal images, and identify other diagnostic information, and analyze diagnostic information to provide a summary of findings for physicians and record findings and keep track of patients' records.

Our associate degree program allows students to learn all aspects of imaging techniques, from the use of interactive lab skills to the online resources provided that will enhance your overall student experience. Upon completing our program and externship, you will be eligible to take the American Registry of Radiologic Technologist (ARRT) certification exam. In addition to earning an Associate of Applied Science in Diagnostic Medical Sonography program.

We encourage you to read this handbook and refer to this as a helpful guide. All our faculty and staff are here to support you, encourage you and answer any questions that may arise along your new education path. Again, we welcome you and wish luck on your journey.

Best regards,  
Dr. Zahra Ali, CHEP, RDMS, RVT  
DMS Program Director

*The policies presented within are subject to continual review and may be changed at any time, with or without prior notification, based on institutional needs.*

## Contents

Mission Statement .....	4
Program Objectives .....	4
Program Goals .....	4
Program Progression Requirements.....	5
Program Directory .....	6
Program Outcomes:.....	6
Description of the Profession .....	7
Diagnostic Medical Sonography Education .....	7
Role of the Diagnostic Medical Sonography in the Health Care Field .....	7
Technical Standards.....	7
Professional Conduct.....	8
Guidelines for Use of Diagnostic Medical Sonography Laboratory .....	9
Externship Policies and Procedures.....	9
Externship Packet Documentation .....	9
Externship Experiences .....	10
Transportation to the Site.....	10
Competencies.....	10
Clinical 101 Course Shell.....	11
Blood/Body Fluid Exposure .....	11
Electronic Device Use .....	12
Extern Work Policy .....	13
Extern Attendance.....	13
Extern Supervision.....	13
Extern Dress Code .....	14
Student Responsibility Statement .....	14
Clinical Competency Checklist:.....	16

# Associate of Applied Science in Diagnostic Medical Sonography Program

## Mission Statement

The mission of Midwestern Career College's Associate of Applied Science in Diagnostic Medical Sonography program is to provide premier career-focused education in diagnostic medical sonography to prepare competent entry level ultrasound sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

## Program Objectives

The Associate of Applied Science in Diagnostic Medical Sonography Program prepares students to:

- To provide education and training to students so that the students possess the knowledge and skills required for employment as entry-level Sonographer;
- Provide individuals with didactic and hands-on lab education regarding the clinical skills in patient care, medical imaging procedures, patient positioning techniques, scanning principles, protocols, and procedures;
- Prepare students to take and pass either the ARDMS or ARRT certification examinations;
- Prepare students to perform effectively as skilled allied health professionals with the skills needed to meet the demand for quality employees.

## Program Goals

The Associate of Applied Science in Diagnostic Medical Sonography Program is designed to prepare competent entry-level sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains for the abdominal-extended sonography concentration.

### Cognitive

- Obtain, review, and integrate pertinent patient data to facilitate optimum diagnostic results;
- Demonstrate critical thinking skills during the performance of sonographic procedures to provide optimum diagnostic services.

### Psychomotor

- Perform sonographic procedures appropriately and accurately;
- Record all anatomic and physiologic information for interpretation by a physician;
- Document and present complete and accurate sonographic findings to the interpreting physician to facilitate patient diagnosis;
- Maintain optimal function of the sonographic equipment;
- Assist physicians during invasive ultrasound-guided procedures.

## Affective

- Demonstrate effective communication skills with patients and all members of the healthcare team;
- Provide compassionate patient care and education to promote overall well-being;
- Act professionally within recognized ethical and legal standards;
- Demonstrate a commitment to lifelong learning.

## Program Progression Requirements

AAS in Diagnostic Medical Sonography is a Lockstep Academic Program. It means that all courses within the program and the course sequence and schedule within each term of the program are predetermined by the college.

- All program courses are required unless the student receives transfer credit, or the class is noted as elective or optional in the catalog.
- **Students are required to pass all core courses in the term to move forward in the program.**
- Because all courses are required and the course sequence is predetermined, students enrolled in the program cannot add or drop individual courses during their program's add/drop period.
- Students who decide to cease enrollment and formally request to withdraw from the program after the term has started, can drop all of their courses in the term. The grade for each of the dropped courses reflected on the final transcript will be determined based on the timing of the withdrawal request in accordance with the Add/Drop Policy. Students who fail any of the core program courses must contact their Program Director to determine whether they can continue to remain enrolled in the program.

### Program Core Courses\*:

- |   |  |
|---|--|
| - DMS110 Abdomen/Superficial Structures I           | - DMS236 Scanning Principles and Protocols III                 |
| - DMS116 Scanning Principles and Protocols I        | - DMS233 OB/GYN I  |
| - PHY121 Sonographic Physics and Instrumentation I  | - DMS237 Scanning Principles and Protocols OB/GYN I            |
| - ALH130 Patient Care, Law & Ethics in Sonography   | - DMS240 OB/GYN II   |
| - DMS120 Abdomen/Superficial Structures II          | - DMS247 Scanning Principles and Protocols OB/GYN II           |
| - DMS126 Scanning Principles and Protocols II       | - VAS100 Vascular Ultrasound                                   |
| - PHY122 Sonographic Physics and Instrumentation II | - VAS101 Scanning Principles and Protocols for Vascular Course |
| - DMS231 Abdomen/Superficial Structures III         | - DMS249 Scanning Principles and Protocols IV                  |
|   | - DMS255 Board Exam Prep                                       |
|   | - DMS235 Diagnostic Medical Sonography Clinicals               |

*\*Course numbers and names are subject to change.*

## Program Directory

Name	Title	Email	Location
Dr. Zahra Ali, RDMS, RVT	DMS Program Director	<a href="mailto:zali@mccollege.edu">zali@mccollege.edu</a>	203 N. LaSalle
Franklin Mays, BS	Director of Business Development	<a href="mailto:fmays@mccollege.edu">fmays@mccollege.edu</a>	203 N. LaSalle
Dr. Noshaba Rafiq, RDMS, RDCS, RVT	Associate Director	<a href="mailto:noshaba@mccollege.edu">noshaba@mccollege.edu</a>	200 E. 5th Avenue
Ammara Mahmood, RDMS	Lab Instructor/Clinical Coordinator	<a href="mailto:amahmood@mccollege.edu">amahmood@mccollege.edu</a>	200 E. 5th Avenue
Sara Syed, RDMS	Lab Instructor/Clinical Coordinator	<a href="mailto:ssyed@mccollege.edu">ssyed@mccollege.edu</a>	203 N. LaSalle
Peter Bleka RDMS, RDCS, RVT	Program Director NICVS/Lead Instructor DMS	<a href="mailto:pbleka@mccollege.edu">pbleka@mccollege.edu</a>	203 N. LaSalle

## Program Outcomes

### Retention and Placement Rates:

#### 2025:

##### DMS Lasalle

Retention Rate: 86%

Placement: 47%

Credential Success Rate (ARDMS AB): 100%

Credential Success Rate (ARRT): 67%

#### 2024:

##### DMS Lasalle

Retention: 91%

Placement: 77%

Credential Success Rate (ARDMS AB): 100%

Credential Success Rate (ARRT): 30%

##### DMS Naperville

Retention: 90%

Placement: 47%

Credential Success Rate (ARDMS AB): 50%

Credential Success Rate (ARRT): 40%

\*While Midwestern Career College is committed to supporting each student's success, the achievement of these outcomes may vary depending on individual effort, engagement, and certain external factors.

## Description of the Profession

Diagnostic Medical Sonographers are allied health professionals who are an integral part of a team of medical practitioners. They utilize high-frequency sound waves that produce images of organs, tissues and blood flow inside the body that help doctors diagnose patient illness. Diagnostic Sonographers typically work closely with patients and radiologists in health-care settings, including hospitals, diagnostic medical centers, mobile ultrasound companies, medical clinics, and physician's offices.

## Diagnostic Medical Sonography Education

The preferred entry-level education to become a Diagnostic Sonographer is the associate degree; all programs are expected to meet the minimal curriculum requirements as defined by the ARRT for Diagnostic Medical Sonography.

## Role of the Diagnostic Medical Sonography in the Health Care Field

Ultrasound Tech is a shortened version of a Diagnostic Medical Sonographer and after the completion of this program, you will also be known as an Ultrasound Technologist.

Ultrasound technologists deal directly with patients and typically work under the supervision of a radiologist.

Although each facility may have a different protocol general steps are as follows:

- The technologist will explain the exam in detail to make sure the patient is comfortable.
- The patient will be asked to remove any clothing or jewelry which might interfere with the exposure of the body area to be examined. The patient will be given a gown to wear if clothing must be removed.
- The patient is positioned on an ultrasound table that carefully positions the part of the body that is to be examined. Some examinations may be performed with the patient in a sitting or standing position.
- The ultrasound beam is then focused on the area of the body that is to be imaged.
- The patient must be very still, or the image will be blurred.
- The technician may ask the patient to perform various breathing techniques.

## Technical Standards

- Regularly stand, walk, sit, kneel, squat, bend/stoop, use hands and fingers to handle or feel.
- Routinely push/pull more than 50 pounds
- Routinely lift, carry and/or move more than 50 pounds
- Have full range of upper and lower extremities movement both fine and gross motor movements
- Distinguish audible sounds
- Distinguish multiple shades of grey and color

## Professional Conduct

Diagnostic Medical Sonography students at MCC are being educated to serve the community; therefore, it is expected that they will conduct themselves in a professional manner in all settings in which they are representing the college, including but not limited to the classroom, laboratory, and clinical areas. This policy is in addition to, not a replacement for the Standards of Student Conduct explained in the MCC Catalog.

Professional conduct includes, but is not limited to, punctuality, respect for other people, their property, and their right to learn, as well as principles explained in the ARRT Standards of Ethics and Ethical Conduct for the Diagnostic Medical Sonography Program. It also includes an appropriate respect for those in authority. Students are to be mindful of the things discussed and their attitude around everyone while in the classroom or at a clinical site. We expect the student to observe the following:

- **Attendance/Reliability-** In the didactic setting, students are required to have at least 75% overall attendance percentage before a student can be approved to be placed for clinicals. Students who are not meeting this will NOT be recommended for clinical externship that will result in program withdrawal.
- **Honesty** – Being truthful in communication with others.
- **Trustworthiness** – Maintaining the confidentiality of patient information; admitting errors and not intentionally misleading others or promoting self at the patient's expense.
- **Professional Demeanor** – Being thoughtful and professional when interacting with patients and their families; striving to maintain composure under pressure or fatigue, professional stress, or personal problems; maintaining a neat and clean appearance and dressing in attire that is reasonable and accepted as professional to the patient population served.
- **Respect for the Rights of Others** – Dealing with professional staff and peer members of the health team in a considerate manner and with a spirit of cooperation; acting with respect toward all persons encountered regardless of age, race, color, national origin, disability, religion, gender, sexual preference, socioeconomic status or veteran/Reserve/National Guard status; respecting the rights of patients and their families to be informed and share in patient care decisions; respecting patients' modesty and privacy.
- **Personal Accountability** – Participating responsibly in-patient care to the best of your ability and with appropriate supervision, undertaking clinical duties and persevering until they are complete; notifying the responsible person if something interferes with your ability to perform clinical tasks effectively.
- **Concern for the Welfare of Patients** – Treating patients and their families with respect and dignity both in their presence and in discussions with others; discerning accurately when supervision or advice is needed and seeking these out before acting; recognizing when your ability to function effectively is compromised and asking for relief or help; not using alcohol or drugs in a way that could compromise patient care or your own performance; not engaging in romantic, sexual, or other nonprofessional relationships with a patient, even upon the apparent request of a patient.
- **Promptness** - It is expected that students arrive on time for classes, labs, and clinical rotations at all times.

## Guidelines for Use of Diagnostic Medical Sonography Laboratory

The Diagnostic Medical Sonography Program laboratory provides students with a setting to practice and demonstrate skills in a mock imaging room. Use of ultrasound equipment, instrumentation and supplies is restricted to students enrolled in the Sonography program.

If a student is using the laboratory during non-scheduled times, the student is required to:

- Email the program director at [zali@mccollege.edu](mailto:zali@mccollege.edu) indicating that you wish to come to lab for practice;
- Sign in at the front desk area;
- Disclose the names of anyone who is with you in the lab area;
- Return all equipment to original location and status when finished;
- Dispose of trash appropriately;
- Wipe down equipment with authorized wipes;
- Sign out at the front desk area.

Due to the nature of the environment and equipment, the presence of children is prohibited in the Diagnostic Medical Sonography laboratory.

## Externship Policies and Procedures

### **Student Responsibilities at the Externship Site:**

Externship experience is critical for a student to reach his or her educational and career goals. The student responsibilities at the externship site include, but are not limited to:

- Respect patients, property, staff, technologists, and other personnel
- Attend clinicals according to an assigned schedule;
- Follow College and site policies, procedures, and standards of patient care;
- Meet the competencies and program clinical outcomes;
- Complete all required documentations in a timely manner;
- Be open to feedback, progress reviews and constructive criticism;
- Respond to any communication from the clinical instructor, program director, site staff and administration;
- Communicate any changes, or concerns to the clinical instructor and externship dept.

## Externship Packet Documentation

All students are required to submit an externship registration packet to be eligible to receive an externship assignment. Students who fail to submit their externship registration packet in full by the deadline will not be eligible for externship. The deadline will be provided during student orientation and from communication from the externship department directly. Partial or incomplete packet submissions will not be accepted. A complete externship packet containing all the documentation is listed in the MCC Externship Handbook.

Partial or incomplete packet submissions will not be accepted. All documents must be updated via Castle Branch.

## Background Check

Students must complete a background check as part of the MCC admission process. A felony on student record will not necessarily disqualify the student from consideration for admission. However, it can adversely affect the student's ability to complete the Externship course and meet program completion requirements, find employment in the field related to their education, or take professional certification exams in the medical professions. MCC encourages students to consider their personal history to make the appropriate education and career choices.

The majority of MCC's affiliated sites will accept a background check completed within a year of assignment at the clinical site. However, some sites may require a more recent background check completed before the start of clinical rotation. Any expenses incurred for the additional background check will be the responsibility of the student.

## Drug Screening Policy

Consistent with its mission as an institution of higher education, Midwestern Career College (MCC) is committed to educating students, faculty, and staff on the dangers of alcohol and drug abuse, and to maintaining an environment in which such behavior is prohibited.

Some of MCC's affiliated sites require students to obtain and pass a drug screening before placement. If problems arise with a student's drug screening, the student will not be permitted to attend the Externship course which will result in program withdrawal.

## Externship Experiences

Midwestern Career college requires the student to complete 380 hours in a controlled environment. During clinicals the student will perform a series of procedures in a supervised ultrasound environment, interact with patients and staff, and use functioning ultrasound equipment. This experience will allow students time to observe, understand, practice, and become competent in an environment that prepares for real-life experiences as Registered Diagnostic Medical Sonographer.

## Transportation to the Site

Students are responsible for securing their transportation to and from the externship site. Any costs associated with parking fees and/or tolls will be the student's responsibility.

## Competencies

All applicants for certification must meet the criteria to be eligible to sit for the ARRT certification. As part of the education program, candidates must demonstrate competence in the clinical procedures identified below:

- Five Mandatory patient care procedures and be CPR certified

- Five mandatory scanning techniques
- Two mandatory equipment care activities
- 16 mandatory imaging procedures
- 11 elective imaging procedures selected from a list of 24 procedures

When performing imaging procedures to comp, the student must independently demonstrate appropriate:

- patient identity verification;
- examination order verification;
- patient assessment;
- room preparation;
- patient management;
- equipment operation;
- technique selection;
- patient positioning;
- image processing.

A detailed list for the ARRT Primary Certification Didactic and Clinical Competency Requirements exams can be found here: <https://assets-us-01.kc-usercontent.com/406ac8c6-58e8-00b3-e3c1-0c312965deb2/c8d7442a-115b-4c44874e-c90da2116f0e/Sonography%20Clinical%20Competency%20Requirements%202024.pdf>

## Clinical 101 Course Shell

All Allied Health students are automatically enrolled in the Clinical 101 course. Clinical 101 is a self-paced online course used as a pre-externship orientation tool to prepare students for the clinical portion of their program. The course does not focus on any specific allied health discipline, but rather emphasizes the aspects of professional behavior necessary for a successful externship experience in any of MCC's allied health programs. The Clinical 101 course shell consists of 3 modules, a final exam, and the end of course survey. Students also submit their externship registration packet through Clinical 101 course shell. Students are required to pass the Clinical 101 final exam and the Externship handbook quiz with a 90% or higher to receive Clinical 101 course completion certificate. The course completion certificate is one of the required documents in the externship registration packet, which needs to be included along with other supporting documents listed in the packet.

## Blood/Body Fluid Exposure

This procedure is to be followed if a student is involved in a blood/body fluid exposure incident:

- The clinical instructor or a designated supervisor immediately assists the student in cleansing the wound or affected area with soap and water or irrigating splash area (i.e., eyes, mucous membranes) with normal saline or water. If eyes have been splashed, flush 15 minutes at eyewash station with wash bottle or saline;
- Follow facility protocols for exposure, i.e., emergency room visit, employee health center;
- Notify the Program Director or clinical instructor assigned to you; school incident report must be completed;

- The facility will assist the student in filling out all necessary documentation forms and will coordinate any necessary follow-up according to their exposure policy;
- Costs incurred by a student's blood and body fluid exposure are the student's responsibility.

## Electronic Device Use

A student shall not have a cell phone or any other electronic device during clinical activities, unless approved by the Clinical Instructor. These devices are disruptive to the environment and should only be utilized during breaks and in allowable areas per the clinic's policies. Failure to follow this policy may result in dismissal from the clinical site and could result in a disciplinary action.

## Social Media Use

Documenting and sharing any part of the clinical experience on the social media platforms such as Facebook, LinkedIn, Twitter, YouTube, Wikis, blogs, as well as other social networks and collaboration tools such as text messages and Facetime without written authorization from the College is prohibited. The prohibited conduct includes but is not limited to:

- Taking and posting pictures, video or recording of any kind while at the clinical site;
- Disclosing and/or discussing the confidential information obtained from the electronic health records;
- Saving and storing patient information on personal portable devices;
- Revealing patient health information or describing patient care events on social media, even if the patient names or other personally identifiable information are omitted;
- Interacting with patients on social media in any way that may violate the privacy and confidentiality of patient care (including identifying them as patients) or be deemed unprofessional and or hostile.
- Students who are found in violation of the social media use guidelines will be subject to disciplinary actions up to and including dismissal from their program of study.

## Termination of Externship Assignment

The reasons for termination of an externship assignment include, but are not limited to:

- No call, no show to the clinical rotation;
- Excessive tardiness;
- Multiple documented or undocumented absences;
- Unprofessional student behavior reported by the site;
- Unsatisfactory student performance or failure to progress as reported by the site;
- Violations of site-specific policies and procedures;
- Failure to follow HIPPA requirements;

Violations of the standards of student conduct as defined by the site or the college's catalog.

Students whose externship assignment is terminated will be withdrawn from the externship course and, if not simultaneously enrolled in any other courses, from their program of study.

Re-enrollment in the externship course will require the approval of the Externship Department and the

Program Director and is subjected to clinical site availability. Students whose externship was terminated due to unsatisfactory performance at the externship site will be required to repeat a portion of the program before restarting their clinical rotation. Students whose externship was terminated due to conduct violations or unsatisfactory attendance will not be eligible for re-enrollment.

## Extern Work Policy

All student activities associated with the curriculum, especially while students are completing clinical rotations, will be educational in nature. Students will **not** be substituted for hired staff personnel within the clinical institution, in the capacity of an Ultrasound Technologist.

## Extern Attendance

Students are required to follow the Externship Schedule and Attendance Policy listed in the Externship Handbook.

- Clinical attendance during inclement weather follows the Campus Closure Policy on the college website. In general, a student must make a personal decision if travel is safe. If the student decides it is not, the student should contact the site and the Externship Department.
- Chronic tardiness will not be tolerated. Tardiness is disruptive to the patient-care setting, therefore, if a student is more than 15 minutes late, and has not notified the clinical site, the clinical instructor has the authority to release the student from the clinical site and send them home. This will result in an eight-hour absence.
- Students are not permitted to leave the clinical site prior to the end of their clinical shift. If all cases have been completed, it is the student's responsibility to seek out other tasks and activities to support their clinical education.

## CourseKey Software

CourseKey is the digital attendance tracking system students will use to punch in and out while attending extern. Make sure to log in and log out on a daily basis. Failure to login may result in not being rewarded all your hours. You must log in and log out on site. If you have any questions regarding CourseKey or are having a difficult time with the app, please reach out to the extern department at [externship@mccollege.edu](mailto:externship@mccollege.edu).

## Extern Supervision

Prior to achieving competency in accordance with program standards, a student must be directly supervised by a qualified Ultrasound Technologist during all procedures. All students will follow the policy for supervision at the respective clinical site. After achieving competency in a procedure, the student is then allowed to perform that procedure with indirect supervision. Key requirements:

- All students must be supervised by a preceptor from the clinical site while in the technologist role during imaging procedures.
  - Direct supervision indicates that the preceptor is also in the ultrasound technologist role and immediately available to assume control over imaging exam at any given moment.

- Indirect supervision is defined as a qualified Ultrasound Technologist being immediately available in the room to assist the student, if needed. This applies to all students regardless of student achievement.
- Students are not to perform imaging procedures without a qualified Ultrasound Technologist present in the room during the procedure.
- Any student who finds himself or herself without proper supervision must immediately notify the Clinical Supervisor at the site, the Externship Coordinator, or the Program Director.

## Extern Dress Code

All students are expected to adhere to a clinical dress code policy. If a clinical site's standards are more stringent, they will supersede program policies. Clothing worn to and from clinical site should be program scrubs.

Appropriate uniform requirements include:

- Student identification badge;
- Clean, comfortable shoes;
- The school will provide scrubs. No personal clothing such as scrub jackets or hats will be allowed at the clinical site or during class hours;
- Identification badges must be worn at clinical sites.

In addition to the attire described above, the student should be mindful of the following expectations:

- Hair shall be neat, clean, well-trimmed and properly combed at all times;
- Mustaches and beards must be neatly trimmed (for safety). If a student does not have a mustache and/or beard, the student's face must be clean-shaven;
- Hands and teeth are to be clean at all times. Fingernails should be clean and trimmed. Fingernail polish is not permitted during clinical rotations. Decorative or studded fingernails are not allowed. False fingernails of any type are strictly prohibited;
- Jewelry of any kind is not recommended in the ultrasound area as they may become dislodged and threaten the safety of a patient or staff member. It is highly recommended that jewelry and all watches, lab tops, tablets and any object containing metal be left at home. MCC and your clinical site are not responsible for lost/stolen or damaged personal items;
- Visible body piercing (including tongue piercing) is not acceptable.

A clinical site reserves the right to send a student home if the student does not comply with the requirements of the site or the Program.

## Student Responsibility Statement

By being enrolled in the Associate of Applied Science in Diagnostic Medical Sonography program, I acknowledge that it is student's responsibility to read and understand the Diagnostic Medical Sonography Program Handbook and abide by all policies.

I understand that the policies and procedures contained in this Handbook are subject to change without notice at the discretion of the Program Director.

I acknowledge that the Program Director will attempt to notify me of any changes in a timely manner; but that I am responsible for being familiar with the most current version of all policies in the Program Handbook is available on the college website.

I accept the responsibility to understand requirements for my program of study and I assume responsibility for meeting those requirements.

Information needed to know as you embark on your exciting new journey! Please read, sign, and submit along with your records.

1. A student is not able to choose their clinical site.
2. Externship hours and schedules will be determined by the site, not the student. Students are expected to attend the schedule the site provides. No vacations will be approved during extern.
3. The student must abide by the site's rules.
4. You must attend clinical in your school appointed scrubs.
5. CourseKey is the digital attendance tracking system students will use to punch in and out while attending extern. Make sure to log in and log out on a daily basis. Failure to login may result in not being rewarded all your hours. You must log in and log out at the site.
6. You will need a binder. This binder is to be taken with you to your clinical site daily. Some sites will require you to keep your binder on site. Information needed in this binder are as follows:
  - a. ARRT Comp Sheet – please print the comp sheet from the link provided below.

# Clinical Competency Checklist

## Mandatory Patient Care Procedure

CPR Certification
Vital Signs – Blood Pressure, pulse, respiration
Monitoring level of consciousness and respiration
Standard Precautions
Sterile Technique
Verification of informed consent

## Mandatory Scanning Techniques

Gray Scale (2D)
Color Doppler
Power Doppler
Spectral Doppler
M-mode

## Mandatory Equipment Care

Prepare transducer for intracavitary use
Clean and disinfect transducer

## Great Vessels

Demonstrates and identifies Aorta Longitudinal Axis (Superior, Mid, <u>Distal</u> )
Demonstrates and identifies Aorta in transverse Axis (Superior, Mid, <u>Distal</u> )
Demonstrates and identifies the IVC in Longitudinal Axis
Demonstrates and identifies the IVC in transverse Axis
Measurements: appropriate caliper placement for diameter of Aorta
Identifies and demonstrates abnormal sonographic findings
Properly utilizes color, power, and/or pulsed Doppler

## Abdominal

Demonstrates and Identifies the following anatomy in both longitudinal and transverse planes:
a. Liver
b. Gallbladder
c. Right and Left Kidney
d. Spleen
e. Pancreas
f. Aorta
Measurements: Appropriate caliper placement for the following
a. Common bile
b. Gallbladder Wall
c. Right and Left Kidney
d. Spleen
Measures other structures when indicated (liver, portal vein, pancreas, aorta, <u>ect.</u> )
Utilizes different patient positioning to achieve optimal images (LLD, RLD, Upright)
Utilizes Color imaging and Doppler technology when appropriate
Identifies and Demonstrates abnormal sonographic findings

### 1st Trimester OB

Obtains relevant patient clinical history (LMP, GPA, Lab Values)
Utilizes trans-abdominal and/or trans-vaginal imaging as indicated
Able to identify and assess the following:
a. Number and location of gestational sacs
b. Size and shape of yolk sac
c. Presence or absence of cardiac activity and rate of activity
d. Fetal pole and fetal movement
e. Presence and appearance of amnion
Measures all appropriate parameters related to 1st trimester (gestational sac, fetal pole, nuchal thickness)
Demonstrates ability to incorporate the instrument's obstetrical statistical package to analyze measurements.
Surveys other pelvic structures (ovaries, adnexa, etc.)
Images other areas of interest when needed (kidneys, Morrison's pouch, <u>ect.</u> )
Identifies and Demonstrates abnormal sonographic findings
Properly utilizes color, power, and/or pulsed Doppler

**Ultrasound Competency 2nd Trimester OB**

Obtains relevant patient clinical history (LMP, GPA, Lab Values)
Utilizes trans-abdominal and/or trans-vaginal imaging as indicated
<b>Able to identify and assess the following:</b>
<b>a. Cerebellum</b>
<b>b. Cisterna Magnum</b>
c. Nuchal fold (with measurements as needed)
d. Cavum Septum Pellucidum
e. Lateral Ventricles (with measurements as needed)
f. Choroid plexus
g. Thalamus
h. Orbits
i. Facial profile
j. Lips/Nose
k. Cardiac Four Chamber
k. Diaphragm
l. Stomach
m. Gallbladder
n. Kidneys
o. Bladder
p. Spine (multiple views)
q. Upper and lower extremities
<b>Assesses the Following:</b>
a. Fetal lie
b. Number of vessels in the umbilical cord
c. Location/Grade of placenta
d. Amniotic Fluid level
e. Length and state of cervix
Correctly Measures the following:
a. Biparietal diameter
b. Head Circumference
c. Abdomen circumference
d. Femur Length
Demonstrates ability to incorporate the instrument's obstetrical statistical package to analyze measurements.
Identifies and Demonstrates abnormal sonographic findings
Properly utilizes color, power, and/or pulsed Doppler

**Ultrasound Competency 3rd Trimester OB**

Obtains relevant patient clinical history (LMP, GPA, Lab Values)
Utilizes trans-abdominal and/or trans-vaginal imaging as indicated
Able to identify and assess the following:
a. Cerebellum
b. Cisterna Magnum
c. Nuchal fold (with measurements as needed)
d. Cavum Septum Pellucidum
e. Lateral Ventricles (with measurements as needed)
f. Choroid plexus
g. Thalamus
h. Orbits
i. Facial profile
j. Lips/Nose
k. Cardiac Four Chamber
k. Diaphragm
l. Stomach
m. Gallbladder
n. Kidneys
o. Bladder
p. Spine (multiple views)
q. Upper and lower extremities
Assesses the Following:
a. Fetal lie
b. Number of vessels in the umbilical cord
c. Location/Grade of placenta
d. Amniotic Fluid level
e. Length and state of cervix
Correctly Measures the following:
a. Biparietal diameter
b. Head Circumference
c. Abdomen circumference
d. Femur Length
Demonstrates ability to incorporate the instrument's obstetrical statistical package to analyze measurements.
Identifies and Demonstrates abnormal sonographic findings
Properly utilizes color, power, and/or pulsed Doppler

### Ultrasound Competency Liver

Demonstrates and identifies in Longitudinal:
a. Left Lobe
b. Right Lobe
c. Caudate
Demonstrates and identifies in transverse:

a. Left Lobe
b. Right Lobe
Demonstrates and identifies hepatic vessels: Hepatic Veins, IVC, Portal Vein, Hepatic Artery
Demonstrates and identifies Ligaments and fissures
a. Teres/Falciform
b. Venosum
c. Main Lobar Fissure
Demonstrates and Identifies relational anatomy: Diaphragm, porta hepatis, right kidney/Morrison's Pouch
Measurements: appropriate caliper placement
Identifies and demonstrates abnormal sonographic findings
Properly utilizes color, power, and/or pulsed Doppler

### Ultrasound Competency Pancreas

Demonstrates and identifies in Longitudinal axis the pancreatic
a. Head
b. Body
c. Tail
Demonstrates and identifies in transverse axis the pancreatic
a. Head
b. Body
<u>c.</u> Tail
Demonstrates and identifies the vascular landmarks of the pancreas:
a. Splenic vein, portal confluence/SMV
b. SMA, Great Vessels
Demonstrates and identifies
a. Common Bile duct
b. Pancreatic duct
Demonstrates and identifies relational anatomy: Stomach, duodenum, left kidney
Measurements: appropriate caliper placement
Identifies and demonstrates abnormal sonographic findings
Properly utilizes color, power, and/or pulsed Doppler