

DMS Handbook Vascular Ultrasound

2021-2022



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Jackson College



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Program Director Message

Dear Student,

Thank you for making Jackson College a part of your educational journey; we are honored to have you join our team and later join fellow Alumni across the nation! You are beginning your trip when the healthcare system is undergoing significant changes. Specifically, a practicing sonographer must hold credentials for the specific performed exams. The Jackson College Vascular Technologist student will work closely with the vascular surgery team within a vascular service line. Technological advances have changed the practice in ways we never imagined. The vascular technologist of today and the future must have good communication, mathematical, scientific, and technological skills to make responsible and ethical clinical judgments, apply the sonographic reasoning process and evaluate the effectiveness of information gathered.

The program is student-centered. As with anything created for student success, I welcome feedback. Please feel free to offer feedback for improvement in assessment and instructional material.

Sincerely,



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Vascular Sonography Program Accreditation

The Vascular Sonography Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Joint Review Committee on Education in Diagnostic Medical Sonography (www.jrcdms.org).

Commission on Accreditation of Allied Health Education Programs

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Organizational and Department Overview

Jackson College Vascular Technology Program

The VSON program is an integrated on-line course study and clinical training program designed to prepare the student for employment in vascular technology. After successful completion of the nationally recognized ARDMS registry exam, the graduate will be eligible to write the initials of RVS or RVT behind his/her name.

The Jackson College vascular ultrasound program goal is to prepare competent entry-level vascular sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Quality and accurate care for every patient is achieved with integrity, reasoning, collaboration, and lifelong learning.

Program Learning Goal- Cognitive-Sonographic Reasoning Competency	
The graduate will be able to think critically and act responsibly.	
Student Learning Outcome	<ol style="list-style-type: none">1. Use an investigative approach to determine the clinical hypothesis and select the correct exam protocols for image acquisition.2. Gather, analyze sonographic data, and identify connections to the pathological and clinical findings3. Formulate an accurate diagnostic preliminary report based on ultrasound and clinical findings
Program Learning Goal- Affective -Professionalism Competency	
The graduate will be able to work productively with others and recognize individual contributions to group success.	
Student Learning Outcome	<ol style="list-style-type: none">1. Participate in quality management team work to provide quality patient care, self-care, and integrity.2. An active member of a professional organizations and their community3. Caring advocate and effective communicator among patients of cultural diversity, normal and altered states, and other healthcare team members.
Program Learning Goal- Psychomotor- Scanning Competency	
The graduate will be able to show sonographic technological literacy.	

<p style="text-align: center;">Student Learning Outcome</p>	<ol style="list-style-type: none"> 1. Exhibit accurate and reliable clinical competency in the performance of vascular exams 2. Perform vascular sonography procedures appropriately and accurately recording all anatomic and physiologic information for interpretation by a physician 3. Apply ultrasound principles and instrumentation relative to imaging and image quality to produce diagnostic vascular sonography examinations 4. Locate and identify normal and abnormal anatomical structures and pathology associated with the cardiovascular system
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Competency Performance Standards

<p>Demonstrate knowledge and application of ergonomic technique</p>
<p>Demonstrate knowledge and application of types and methods of infection control.</p>
<p>Demonstrate knowledge and application of patient care</p>
<p>Demonstrate knowledge of the roles and responsibilities of healthcare professions to effectively communicate and collaborate in the healthcare environment.</p>
<p>Demonstrate knowledge of medical ethics and law</p>
<p>Demonstrate knowledge of medical and sonographic terminology</p>
<p>Obtain, evaluate, document, and communicate relevant information related to sonographic examinations</p>
<p>Identify and evaluate anatomic structures</p>
<p>Demonstrate knowledge of disease processes with application to sonographic and Doppler patterns</p>

Demonstrate knowledge and application of image production and optimization.
Demonstrate knowledge and application of biological effects
Demonstrate knowledge of a quality control and improvement program.
Demonstrate awareness of resources for professional development.
Demonstrate achievement of clinical competency through the performance of the requirements to provide quality patient care and optimal examination outcome.
Demonstrate knowledge of anatomy and anatomic variants of the cardiovascular system.
Demonstrate knowledge of normal and abnormal peripheral vascular physiology and hemodynamics
Demonstrate knowledge of mechanisms of vascular diseases, vascular pathophysiology, and hemodynamic effects.
Demonstrate knowledge of sonographic appearances, sonographic techniques, measurements, and Doppler characteristics in both normal and abnormal vascular structures
Demonstrate knowledge of physiologic vascular testing principles and techniques.
Demonstrate knowledge and application in the use of quantitative principles applied to vascular testing.
Demonstrate knowledge in ultrasound-guided procedures
Demonstrate knowledge of the role of ultrasound for evaluation of vascular surgical procedures or interventions, including a role in planning, intra-procedural guidance/technical evaluation, and/or post-procedure assessment
Evaluate scanning protocol and modification(s) based on patient-specific factors
Demonstrate knowledge and application of quality assurance and statistical tests used in a vascular laboratory
Demonstrate achievement of clinical competency through the performance of sonographic examinations of the vascular system according to practice parameters established by national professional organizations and the protocol of the clinical affiliate.

Jackson College	Jackson College Department of Vascular Technology
<p>Mission Together we inspire and transform lives</p> <p>Vision Jackson College is a world-class institution of higher education, where learners succeed, and community needs are met</p>	<p>Mission To be leaders in collaboration with state and national stakeholders in preparing competent, life-long learners who contribute to advancing the vascular technology profession.</p> <p>Vision To prepare talented, competent technologists to enter the workforce to provide excellence in patient care and high-quality vascular exams across the spectrum.</p>

Jackson College and Department of Vascular Technology
<p>Integrity – We demonstrate integrity through professional, ethical, transparent, and consistent behavior in both our decision-making and in our treatment of people; being accountable for our work and actions is the basis of trust.</p> <p>Caring – We demonstrate caring through attentive and responsive action to the needs of students, employees and our community. We listen with open minds, speak kindly, and foster relationships based on mutual respect and trust.</p> <p>Collaboration – We demonstrate collaboration through the mutual commitment of individuals and organizations who come together for a common cause..</p> <p>Innovation – We demonstrate innovation through the continuous improvement of all processes and services.</p> <p>Equity – We demonstrate equity by seeking involvement and providing access for those with diverse backgrounds to work toward a culture of inclusion while maintaining differences in a respectful way.</p> <p>Service – We demonstrate service by striving to make the communities we serve great places to live, work, and learn.</p> <p>Leadership – We demonstrate leadership by nurturing the full development of our employees and those we serve.</p> <p>Stewardship – We demonstrate stewardship through our mindful management of the human, intellectual, fiscal and environmental resources entrusted to us.</p>

Program Administration and Faculty		Contact
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Description of the Profession

Diagnostic medical sonography (DMS) is a multi-specialty occupation comprised of abdominal-extended sonography, adult cardiac sonography, breast sonography, musculoskeletal sonography, obstetrics and gynecology sonography, pediatric cardiac sonography, vascular sonography, and other emerging clinical areas or concentrations.

These concentrations all use comprehensive knowledge of ultrasound technology in their daily work. The trained technologist is an individual who provides patient care services applying ultrasound technology in the performance of diagnostic and/or therapeutic exams and procedures. As an occupational prerequisite the diagnostic medical sonographer must be educationally prepared and clinically

competent. Demonstration and maintenance of competency through certification by a nationally recognized credentialing organization is the standard of practice in sonography. Maintenance of certification in all areas of practice is endorsed.

The diagnostic medical sonographer functions as a delegated agent of the physician and does not practice independently. Diagnostic medical sonographers are committed to enhanced patient care and continuous quality improvement that increases knowledge and technical competence. Diagnostic medical sonographers use independent, professional and ethical judgment, and critical thinking to safely perform diagnostic procedures.

The diagnostic medical sonographer generally performs the following:

- Obtains, reviews, and integrates pertinent patient history and supporting clinical data to facilitate optimum diagnostic results;
- Performs appropriate procedures and records anatomic, pathologic, and/or physiologic data for interpretation by a physician;
- Records, analyzes, and processes diagnostic data and other pertinent observations made during the procedure for presentation to the interpreting physician;
- Exercises discretion and judgment in the performance of sonographic and/or related diagnostic services;
- Demonstrates appropriate communication skills with patients and colleagues;
- Acts in a professional and ethical manner;
- Facilitates communication and education to elicit patient cooperation and understanding of expectations and responds to questions regarding the sonographic examination.

As a multi-specialty occupation, these Standards apply to the following learning concentrations:

Abdominal Extended Sonography
Adult Cardiac Sonography
Breast Sonography
Musculoskeletal Sonography
Obstetrics and Gynecology Sonography
Pediatric Cardiac Sonography
Vascular Sonography

Vascular Technologist

Vascular sonographer is a highly skilled allied health professional who performs arterial and venous diagnostic procedures using high frequency sound waves. A vascular sonographer operates a variety of complex diagnostic and monitoring equipment, as well as numerous ancillary devices.

The vascular sonographer performs carotid duplex scanning, lower and upper extremity Doppler examinations, venous duplex scans, abdominal vascular exams, evaluates test results, monitors physiological states of the patient, conducts patient education, and maintains accurate records and protocols during and after procedures. A thorough understanding of hemodynamics and pathophysiology is required.

Obtain, review, and integrate pertinent patient history and supporting clinical data to facilitate optimum diagnostic results.

- Perform appropriate procedures and record anatomical, pathological and/or physiological data for interpretation by a physician.
- Record and process sonographic data and other pertinent observations made during the procedure for presentation to the interpreting physician.
- Exercise discretion and judgment in the performance of sonographic services.
- Provide patient education related to medical ultrasound.
- Promote principles of good health.

Accommodation for Students with Disabilities:

If a student has a documented learning disability, visual or hearing impairment, psychiatric issue, or other physical or psychological challenge that interferes with learning, the Center for Student Success (CSS) can arrange accommodations for each student's classes in compliance with the American Disabilities Act. Based on the student's particular needs, accommodations may include but are not limited to:

- Extended testing time
 - Quiet testing location
 - Assistive technology
 - Note takers
 - Alternative text formats
 - Sign language interpreter
- It is the student's responsibility to self-disclose a disability.

Once documentation has been provided, CSS can arrange accommodations with instructors each semester. It is the student's responsibility to self-disclose a disability. Once documentation has been provided, CSS can arrange accommodations with instructors each semester.

[Center for Student Success | Accommodations for Students with Disabilities](#)

American Registry for Diagnostic Medical Sonography

[American Registry for Diagnostic Medical Sonography \(ARDMS\)](#) provides reasonable testing accommodations in compliance with the Americans with Disabilities Act (ADA). Under the ADA, a disability is a physical or mental impairment that substantially limits one or more major life activities. Having a diagnosed impairment does not necessarily mean that an individual is disabled as defined by the ADA, and not all disabilities require test accommodations.

Test accommodations are adjustments or modifications of standard testing conditions designed to allow candidates with disabilities to take the examination without compromising its validity, providing an unfair advantage to disabled candidates or imposing undue burdens on ARDMS.

If you are an Applicant seeking accommodation, you must submit, along with your completed application:

1. An original letter, dated within the past five years and typed on official letterhead, from a qualified physician or health provider who specializes in the disability. This letter must document the disability and its severity, describe the applicant's limitation due to the disability, and state exactly what accommodations are recommended. The letter must contain an original signature and the physician's or health professional's credentials;
2. An original, current, detailed, comprehensive medical evaluation/ report of the diagnosed disability from the physician or health professional, dated within the past five years; and
3. A completed [ARDMS Special Accommodations Questionnaire](#) which must be submitted each time you apply for examination.

Review of applications containing a request to receive ADA accommodations may require an additional 30 days to be completed.

Documentation submitted by an applicant in support of a request is reviewed by ARDMS and may be forwarded to an independent medical expert for impartial professional review.

ARDMS may request additional documentation to support the request. All information will be kept confidential and will be used only to determine what, if any, test accommodations will be made.

Approved accommodations will be included in the Examination Confirmation Letter, sent to you via email and also available through [MY ARDMS](#) account, under "My Examinations/Application Status" found under the "Application Center" tab. The email will include the test vendor's telephone number and you should call the test vendor to schedule an examination appointment with the approved accommodations.

Note: All supporting documentation must be received before processing. Incomplete or illegible applications or questionnaires may be refunded, minus the non-refundable examination processing fee per examination.

Laboratory Skill Assessments

Extended time for live demonstration skills examinations: The purpose of skills test items incorporates the designated response time for patient safety and provider efficiency in the clinical setting. Students who are granted accommodations through the Center for Student Success (CSS) can complete any skills non-final practicum examination with up to 1.5 minutes per image acquisition (standard time is one minute per image acquisition). **For clinical purposes, no extensions to established times are allowed.** Jackson College follows the times set forth by the clinical site department policies. (See Center for Student Success | Accommodations for Students with Disabilities)

Program Sequence

Vascular education builds on prior learning. It is necessary to complete certain required courses before taking advanced courses. The following courses must be completed in sequence with a 2.0 grade before proceeding to the next more advanced course.

All DMS clinical courses are subject to special scheduling dates which may or may not follow the college semester dates and/or the college calendar.

Vascular Technology				
Semester SUM	Semester SUM	Course Name	Credits	BCH
Semester 1 (spring)				
DMS 102		Vascular Anatomy, Physiology and Pathophysiology	3	3
DMS 103		Introduction to Sonographic Reasoning and Research	2	2
	DMS 202	Basic Cardiovascular Principles, Hemodynamics and Doppler Waveforms	3	3
Semester 1 Totals			8	8
Semester A 8/30-10/1	Semester B 10/4-12/18			
Semester 2 (Fall)				
DMS 160		Introduction Vascular Technology and Professional lab Practice 105 hours lab practice	3	7
DMS 205	DMS 205	Arterial Duplex and Physiologic Imaging	3	3
	DMS 161	Clinical 24 hours each week x 14 weeks	4	8
DMS 203		Venous Duplex Imaging	3	3

Semester 2 Totals			13	21
Semester A	Semester B			
Semester 3 (Winter)				
DMS 206	DMS 206	Sonographic Physics	4	4
DMS 207		Cerebrovascular Imaging (intracranial and extracranial)	3	3
DMS 265	DMS 265	Clinical II 24 hours x 15	4	8
Semester 3 Totals			11	15
Semester A	Semester B			
Semester 4 (Spring)				
DMS 208		Advanced Imaging (abdominal, post-operative procedures)	3	3
	DMS209	Capstone	4	4
DMS 266	DMS 266	Clinical III 24 hours x 13 weeks	4	7
Semester 4 Totals			11	14
		Clinical Total= 1000 +flexible completion		

Course Description

Jackson College’s Vascular Ultrasound Program is designed as an outcome-based program. Students who demonstrate entry-level skills and program goals are eligible for early completion during the final clinical semester. Each student has maximum of 1,000 hours to achieve clinical goals.

DMS 102 Vascular Anatomy, Physiology and Pathophysiology

In this course students are introduced to the anatomy of the venous, arterial, microcirculation, and anatomic variants of the body. The abdominal structures associated with the vasculature will also be explored. In this course students are introduced to normal function of the venous and arterial systems, abnormal mechanisms, risk factors, and indications of arterial and venous disease associated with a range of pathological conditions.

DMS 103 Introduction to Sonographic Reasoning and Research

In this course students are introduced to the sonographic reasoning method framework, founded by Steven M. Penny, MA, RT(R), RDMS and Anna Zachariason, BS. Using the analytical framework students will be provided a fundamental approach to critical thinking and problem solving associated with

vascular ultrasound examinations. This course explores basic research steps and the importance of contributing to sonography education and becoming lifelong learners. Students will become members of the Society of Vascular Ultrasound and begin exploring the process for writing abstracts and journal articles.

DMS 160 Introduction Vascular Technology and Professional lab Practice

In this course students are introduced to and practice the Intercostal Accreditation Commission (IAC) exam testing protocols of the venous duplex obstruction testing, carotid duplex testing (including manual blood pressure measurements) and ABI exam. The routines of the daily lab are simulated using various In-patient scenarios and outpatient scenarios. Students practice oral communication in a concise, clear and effective manor with students, faculty, and staff. Students actively explore ultrasound equipment and scanning techniques. The appropriate use of color, pulse-wave Doppler, and gray-scale settings is applied to obtain optimal images and Doppler waveform patterns. Students are assessed for proper ergonomics while manipulating the transducer and scanning in the transverse to sagittal scan plans. HIPPA, OSHA Universal Precautions, and basic patient transfer techniques are covered and assessed. The affective, cognitive and psychomotor skills are also assessed in this course.

DMS 202 Basic Cardiovascular Principles, Hemodynamics and Doppler Waveforms

In this course students are introduced to math equations and the relationship of variables to the physics of normal and abnormal blood flow patterns. Basic fluid properties of the venous and arterial systems are defined. The Doppler effect and color Doppler imaging are also introduced in this course. The use of the Doppler equation is used to show how the Doppler spectrum is formed. Measurements of the Doppler waveform are covered and artifacts that may occur are explained.

DMS 203 Venous Duplex Testing

In this course theories, techniques and venous testing procedures of the lower and upper extremity exams are covered. Other topics will include: differential diagnosis; other imaging modalities; identifying deep vein thrombosis; advanced exploration of venous anatomy and collateral pathways; pathology & pathophysiology; Color Doppler & PW Doppler waveforms techniques & principles; preliminary writing. Assessment of these skills will occur in this didactic course and applied in the clinical course work.

DMS 205 Arterial Duplex and Physiologic Imaging

In this course theories, techniques and arterial testing procedures of the lower and upper extremity duplex and physiological exams are covered. Other topics will include: bypass graft imaging; differential diagnosis; other imaging modalities; advanced exploration of arterial anatomy & collateral pathways; pathology & pathophysiology; techniques & principles of color, PW, CW Doppler waveforms; preliminary writing. Assessment of these skills will occur in this didactic course and applied in the clinical course work.

DMS 207 Cerebrovascular Procedures (extracranial and intracranial)

In this course theories, techniques and testing procedures (imaging and non-imaging) of the extracranial and intracranial exams are covered. Topics will include: differential diagnosis; other imaging modalities; tests of accuracy; advanced exploration of arterial anatomy; collateral pathways; pathology & pathophysiology; techniques & principles of color & PW Doppler waveforms; preliminary

writing. Assessment of these skills will occur in this didactic course and applied in the clinical course work.

DMS 208 Advanced Imaging (abdominal, post-operative procedures)

In this course theories, techniques and testing procedures of the abdomen and post-operative exams are covered. Topics will include: post-operative procedures (abdominal, carotid, lower and upper extremities); abdominal arterial and venous visceral and aortic-iliac arterial disease using duplex ultrasound. Advanced exploration of abdominal arterial and venous anatomy, pathology & pathophysiology; Color Doppler, PW Doppler waveforms techniques and principles; preliminary writing. Assessment of these skills will occur in this didactic course and applied in the clinical course work.

DMS 209 Capstone

In this course is a 7-week learning plan designed to immerse students in lessons of how to learn, apply real-world skills, answer contextual style questions and build a deeper understanding of the arterial and venous vascular system, disease processes, pathology, and pathophysiology. The full interactive comprehensive-progressive learning plan is designed for various learning styles and is designed to prepare students for the rigors and endurance needed to complete the registry exam. The content on this site follows the American Registry of Diagnostic Medical Sonography (ARDMS) application and testing outlines. A preselected exam date is embedded in the learning plan schedule. Multiple quizzes and a timed computerized, 200 question mock exam are located at the end of the program containing contextual questions and explanation of incorrect answers.

Clinical & Lab Policies and Guidelines

Clinical Experience

It is expected that student's high learning curve days of clinical will be on those days when the clinical site has a lower-case load. Low learning curve days are when the clinical site is very busy with a heavy case load. On busy days, the student is expected to be of as much help to the staff as is possible. However, the students are placed in a clinical site as a learning modality, and we fully wish to utilize this clinical experience possible. **Students must understand and adhere to the policies the clinical site requires prior to working in that particular clinical site.**

CLINICAL SITE ASSIGNMENT

A clinical site must be arranged and approved for each applicant before final acceptance/admissions into the program. New clinical sites requests are due at the time the program application is submitted (March 1). Do not initiate independent contact with any current Jackson College clinical sites. The clinical site is a third-party entity into which students are placed for practical experience. The Clinical staff employees are not paid JC faculty for the clinical education portion of the program. Jackson College cannot guarantee

that a clinical site will always be available. Arrangement for such a site depends upon the college's ability to enter into a formal agreement with a proposed site. Students should not rely upon the availability of a clinical site particular geographical location. College uses its best efforts to negotiate clinical sites, even after they become available, they can become unavailable for reasons beyond the control of Jackson College and in that event Jackson College has no liability.

Clinical Hour Requirements:

The MAXIMUM Clinical Practicum hours for AAS & CERT-Vascular Technology Program is 1,000.

Student Work Policy: The clinical component of the program shall be educational in nature. Students may not substitute or replace paid staff members of the clinical affiliate. Paid employment of a student in a clinical department will not be used in lieu of the time assigned to the structured clinical experience. DMS students are **NOT** allowed to accept financial compensation for any of their clinical site component. Employment, volunteer services or any other activities cannot interfere with clinical rotations or used in lieu of clinical rotations. Students will not be allowed to use employment, volunteer services or any other activities as clinical experience.

Clinical Assignment: The Jackson College Clinical Coordinator will establish the specific student clinical assignments and rotation for each clinical site. Students may be expected to commute to an additional clinical site (other than the initial clinical site assigned to them) to obtain the complete education of the sonography program. The Jackson College Program Coordinator and Clinical Instructors must approve all student rotations.

A Basic Clinical Site Schedule will be utilized as a guide by the Clinical Coordinator. The clinical education schedule will be determined by the assigned Clinical Instructor of the clinical site. The DMS students may be required to follow the workday schedule of their clinical site. Lunches and work breaks will be at the discretion of the supervising sonographer. Time is not given for a 30 minute lunch, this means that a student must be at their clinical site for 8.5 hours per day in order to reach their 8 hour minimum requirement per day. The clinical schedule is determined by the clinical site not the student. Students should contact their instructor if they have a problem with their schedule; however, the clinical site's needs shall dictate the schedule.

Clinical Coordinator: A Jackson College faculty who provides DMS clinical education direction for students while at their assigned clinical site.

Clinical Instructor: An employee of the assigned clinical site who will support/supervise the clinical education that the Jackson College student is receiving during their clinical education.

VSON students are required to follow all rules and regulations of each clinical site they are assigned. Students violating such rules or regulations will be subject to the warning process and/or dismissal from the VSON program.

It is the student's responsibility to establish a working relationship with their clinical site. Failure to do so will result in the student being dismissed from the clinical setting and therefore the program.

Students violating such rules and regulations will be subject to a warning process and/or dismissal from the VSON program.

Attendance: Dependability and punctuality are important factors in the DMS clinical component. Any absences or tardiness, no matter how legitimate, disrupts the learning process of the student and disrupts the operational function of the Ultrasound Department. Students must complete a request for clinical absence for an approved scheduled absence. (See Exhibit C).

Students are required to notify the appropriate supervisor at their clinical site of their absences for each occurrence. The notification of absence intent should be at least 1/2 hr. (30 minutes) prior to the student's scheduled starting time. All missed clinical time must be made up within the semester that the absence accord. One absence that is not reported to the appropriate supervisor will result in a **warning action**.

Students are required to be at their DMS clinical site until the completion of an eight (8) hour shift unless permission is obtained from the supervising clinical instructor and the supervising sonographer. Students will only receive clinical hours for time actually spent within the clinical setting. Students are required to submit clinical attendance reporting forms.

The student is to notify the attending sonographer whenever the student leaves the DMS lab/department. Failure to do so may be interpreted as abandonment of the clinical assignment.

Tardiness: Excessive tardiness may result in a **warning action**. JC has identified 2 or more tardy during one clinical semester to be considered excessive.

Dress Code: The student's dress and appearance is a reflection of themselves as well as Jackson College and the clinical site. The student's appearance will reflect good personal hygiene and professional dress during all of their clinical practicum and be compatible with the dress code of their current clinical site. The student should check with the clinical instructor regarding specific requirements of the clinical site.

The Jackson College VSON student uniform may consist of the following:

- Must comply with the Clinical Site's dress code
- Clinical scrubs when indicated by clinical site

The student's mode of dress **must** adhere to the proper safety regulations and requirements of the clinical site. Excessive amounts of jewelry and sandals are **NOT** to be worn while at the clinical site.

NO JEANS OR SWEAT PANTS ARE TO BE WORN AT A CLINICAL SITE DURING SCHEDULED CLINICAL PRACTICUM.

Name Badge: All DMS students will be required to wear a name badge. The name badge may be provided by the clinical site.

Employment: Students are encouraged **NOT** to work during the VSON program. Due to limited clinical site affiliations and scheduled workdays within the Ultrasound labs, students will be required to follow a rigid schedule during their clinical site portion of the program. Therefore, if a student chooses to continue to work while in the program, the clinical site schedule will not be altered or adjusted in any way to conform to the students' personal work schedule.

Holidays: The DMS student's schedule will not always follow the routine holiday schedule at Jackson College due to the extensive clinical requirement. Students will have the same holidays off as the clinical site (if it's their regular schedule clinical day). Students are responsible for making arrangements prior to the time off to make the hours up.

The following are considered holidays for DMS students:

New Year's Day	Labor Day
Memorial Day	Thanksgiving Day
July 4th	Christmas Day

Each program has its own calendar; please consult appropriate program director.

Lodging: Students driving an extended distance to commute are responsible for their own lodging arrangements.

Student Conduct: DMS students are expected and required to conduct themselves in a professional manner at ALL times of the DMS program.

Confidentially: The DMS students must acknowledge the importance of the protection of confidential information concerning patients and their families. Any and all information (official and unofficial) regarding a patient or his/her family is considered to be confidential and privilege information. **Any DMS student violating a patient's right to confidentiality will be dismissed permanently from the DMS program upon proof of such violation.**

Vehicle Parking: All DMS students are to park their cars in a designated area of a particular clinical site's choice.

Cell Phones: While the Allied Health faculty recognizes that communication with family and friends is important, the use of cell phones and beepers in class is very distracting to other students and to your instructor. Please keep all electronic devices on either vibrate or voice mail mode and cell phone usage is forbidden in any patient care area. If you are experiencing a family emergency and must keep a cell phone on, please obtain instructor permission prior to class. We appreciate your cooperation in providing an environment conducive to learning for all students.

Vascular Societies: Students will join the Society of Vascular Ultrasound (SVU) while enrolled in the VSON program. Students will receive a discount for membership, \$25.00 per year. Students must be enrolled prior to clinical I.

DMS Lab/Classroom:

Students are required to make their request to the DMS Instructor and/or Program Director when they wish to use the DMS lab outside of the scheduled lab/classroom hours. A Jackson College faculty member must supervise lab use at ALL times.

Why is infection control important in this lab?

Infection control and prevention is critical to delivering safe and high-quality care to patients undergoing sonographic procedures. Ultrasound is generally considered a relatively safe procedure when compared with radiation-based imaging techniques, however poor ultrasound probe reprocessing protocols and environmental disinfection methods may result in a risk of patient cross-infection.

Required

All students will watch the instructional videos located in DMS 160:

- Lab Duties
- Universal Precautions

In our DMS lab, the Spalding Classification is **Non-Critical Contacts**, meaning our scan volunteers have healthy intact skin. This involves surface ultrasound procedures that involve intact skin such as transabdominal, cardiac, and some vascular ultrasounds. Low level disinfectants (LLD) are appropriate for environmental surfaces in the sonography clinic (e.g. probe cable, keyboard, and patient bed). Low level disinfectants rapidly kill most vegetative bacteria and medium sized lipid containing viruses. However, they are not effective against bacterial endospores, mycobacteria, fungi, or all small non-lipid viruses. **Non-critical ultrasound probes should undergo cleaning and LLD.**

- **Always follow the recommendations of the cleaner or disinfectant manufacturer.**
- **Always use gloves when cleaning or disinfecting any equipment.**
- **Using non-recommended disinfectants, using incorrect solution strengths, or immersing a transducer deeper or longer than recommended can damage or discolor the transducer and voids the transducer warranty.**
- **Always remove gel completely before using cleaners and disinfectants.**

General Practice Lab Usage Guidelines

- All students are to wash/sanitize their hands when entering the DMS lab. Hand hygiene is required before all scanning practice and pre-clinical competencies.
- Food is not allowed in the lab classroom HLC 218.
- Please be considerate of sharing lab space, beds, equipment, and supplies.
- Students are expected to utilize the designated supplies to practice, and they are to leave scanning bays areas neat and clean. Including the following:
 - All beds, ultrasound machines, and equipment should be sanitized upon completion of session.
 - All soiled linen should be placed in the appropriate receptacle.
 - All beds should be left in the lowest position with wheels locked.
 - Refill gel bottles and restock supplies.
- Cleaning and Disinfecting Ultrasound Systems
 - Do not spill or spray liquid into any system seams, ports, or transducer receptacles.
 - On monitor screens and touch screens, use microfiber cloth; do not use paper towels.

- On monitor screens, do not use glass cleaners, Dispatch spray, or products containing bleach. Repeated use of such cleaners or products may damage the monitor screen surface. Immediately wipe away approved disinfectants or cleaners to prevent residue buildup. Use cleaners specifically designed for cleaning LCDs or OLEDs.
- On touch screens, do not use Dispatch spray or products containing bleach or alcohol. Repeated use of such cleaners or products may damage the touch screen surface. Immediately wipe away approved disinfectants or cleaners to prevent residue buildup.
- System surfaces and transducers are resistant to ultrasound gel, alcohol, and disinfectants, but if you use those substances, you must wipe them off to prevent permanent damage.

Preparing & utilizing the workspace

- All students will wash/sanitize hands.
- All students will sanitize ultrasound machine, transducer, and equipment with approved disinfectant.
- Students will verify bed wheels are in the locked position.
- Students will drape the bed with either clean or disposable linens.
- Scanning students will wear gloves.
- When direct instruction is needed, instructor will wear gloves. Once instruction is completed, instructor will discard gloves and sanitize hands.

Closing out the workspace

- Students will dispose of dirty linen or disposable linen in appropriate receptacle in lab.
- Students will sanitize ultrasound machine, transducer, and equipment with approved disinfectant.
- Bed will be lowered in position. Wheels will be in locked position.
- Students will dispose of gloves in the receptacle located in scanning bay.
- Students are to wash/sanitize hands prior to leaving lab.

COVID-19 PROTOCOL

- COVID-19 positive students and employees must remain off-campus for 5 days.
- If there is a positive case in a classroom, the student is confined for 5 days post wellness. Class continues as normal.
- Masks are available upon request.
- Masks are encouraged in larger spaces (fieldhouse, community rooms, dining area, etc).

Student Scanning Policy:

Diagnostic Medical Sonography students are required to utilize live model patients during “Introduction to Clinical” laboratory scanning. These subjects cannot be subjected to scanning in the Jackson College DMS laboratory unless they have read and signed the **Jackson College Scan Subject Release Form prior**

to being scanned. All students, model patients, and volunteers must comply with this requirement. The form must be on file with the program director before a model patient can be used for any scanning. No student is required to be scanned. If they choose to be scanned they do so at their own risk. **Student's grades and evaluations will not be affected by participation or non-participation.** Jackson College, the Allied Health Director, the Program Director, or any Jackson College instructor or representative of the institution cannot be held liable for any condition and/or injury resulting from students scanning each other. Any scanning done by students will be done under the supervision of a designated DMS instructor. All DMS students and volunteers MUST sign a Jackson College Scan Subject Release Form (Found in VSON Handbook- Exhibit D).

- In case of an emergency while in your classroom, call 911.

- If you are concerned about a safety issue with an unstable or hostile student, call JC Security.
 - Extension x8620 from on campus
 - 517-796-8620 from a non-campus phone
- If you get voicemail
 - Press 2 IF AN EMERGENCY – this directs you to the guard on duty's mobile phone.
 - Otherwise LEAVE A MESSAGE – your message goes directly to JC security personnel. They will respond directly.

- Emergency procedures are posted in every classroom.

- Each of JC's external campuses has security on duty after 6 pm.

- Any non-emergency issues or concerns can be directed to:
 - **Heather Ruttkofsky**
Vascular Technology Program Director
517260-4810
ruttkofheatherm@jccmi.edu

 - **Becky Bartley**
Health Sciences Coordinator
517.796.8564
BartleyRebeccaL@jccmi.edu

Scanning Policy: During the "Introduction to Clinical" course VSON students will be scanning each other. No student is required to be scanned. **Student's grades and evaluations will not be affected by participation or non-participation.** If they choose to be scanned, they do so at their own risk. Jackson College, the Program Director, or any Jackson College instructor or representative of the institution cannot be held liable for any condition and/or injury resulting from students scanning each other. Any scanning done by students will be done under the supervision of a designated VSON instructor. All students and volunteers MUST sign a scan release form (Exhibit D-).

Human Subject for Education Purposes Policy: Participation in this program is completely voluntary and the purpose of participating in live ultrasound scanning is to learn as much as possible about ultrasound. All scanning examination in the classroom is for educational purposes only and is not diagnostic in nature.

Attendance of Conferences: Jackson College and the DMS Program encourage continuing sonographic education. Students may wish to attend local, regional, or out of state ultrasound conferences. Clinical absences will be excused.

Social Media Use: social media can be defined as web-based or mobile technologies through which users create online communities to share information, ideas, personal messages, and other content. Examples of social media include but are not limited to collaborative projects (e.g., Wikipedia), blogs and microblogs (e.g., Twitter, Instagram), content communities (e.g., YouTube, Allnurses.com), social networking sites (e.g., Facebook, LinkedIn), and virtual social worlds (e.g., Second Life). Students are responsible for the social media content they post or promote and are always held in compliance with the Social Media Policy guidelines while enrolled at Jackson College.

Health Records and Policies

Health Certificate Form: A Statement of Physical/Emotional Fitness must be completed (by the physician of your choice) for the sole purpose of determining and documenting your physical status prior to beginning the clinical component of your Allied Health Program (see Exhibit A). The Health Certificate Form includes: a negative Tuberculin Skin Test or negative chest x-ray; proof of immunizations for Rubella (German Measles); Rubeola (Hard Measles); Tetanus/Pertussis; the Hepatitis B Vaccine Series; Varicella Zoster (Chicken Pox) or a physician diagnosed history of varicella zoster; and a recent physical examination. It is preferable that the Hepatitis B series is completed prior to entering the Allied Health program; however, minimally it *must* be started, or a waiver signed before the student is allowed to attend the clinical site. This Health Certificate Form must be completed and uploaded to Castle Branch prior to starting any clinical education courses.

CPR Certification: It is also required to obtain “BLS for Healthcare Provider” CPR Certification via The American Heart Association. This training includes infant, child, adult, 1 man – 2 man CPR, choking and AED devices. CPR *must* be maintained and proven every 2 years.

Student Health Issues: It is the student’s responsibility to inform the Program Director of any illness, injury, surgery or medical condition that might compromise the safety of either the student or the patient(s) (i.e. lifting limitations, contagious disease, pregnancy, etc.). If a student has an infectious condition that may endanger clients in the clinical sites, they need to inform the Program Director of the situation and provide a written letter from their health care provider stating that it is safe for them to return to the clinical site. While in the program, any student with a medical condition or injury which causes a student to miss clinical for over two (2) days, will be required to obtain a written doctor’s release to continue in class and clinical and/or to return to class and clinical. The release will verify that s/he is able to meet class/lab/clinical practice requirements without restrictions on activity (such as limitations on weightlifting). The goal is to prevent aggravating an existing condition, or jeopardizing the students, classmates or patient’s safety or well-being. **If a student must interrupt the clinical component for period greater than two (2) weeks, the student will only be re-admitted into clinical with the Program Director and Clinical Instructor’s permission.** The program must be completed within 150% of enrollment. If at any point there are concerns regarding a health problem or disability, Jackson College reserves the right to require a medical release or physical examination. Students are responsible for contacting the Program Director regarding concerns or risks related to their own health care needs. Students must meet the Technical Standards and Functions (see Exhibit B) set for participants in the Jackson College Allied Health Programs with or without reasonable accommodation.

Health Insurance: It is important that you maintain health insurance to defray the cost of hospital and medical care of any illness or injury that may be sustained while participating in a clinical experience. Substantial monetary liability can be incurred if you do not have medical insurance and injury or illness occurs.

Communicable Disease Policy: To protect health care personnel from transmission by considering all patients as potentially infected with HIV and/or other blood-borne pathogens, and to adhere rigorously to infection control precautions for minimizing the risk of exposure to blood, bodily fluids, and moist body substances of all patients.

1. All health-care workers should routinely use appropriate barrier precautions to prevent skin and mucous-membrane exposure when contact with blood or other bodily fluids of any patient is anticipated. Gloves should be worn for touching blood and body fluids, mucous membranes, or non-intact skin of all patients, and for handling items or surfaces soiled with blood or body fluids. Gloves should also be worn during venipuncture or other vascular access procedures. Gloves should be changed after contact with each patient. Masks and protective eyewear or face shields should be worn during procedures that are likely to generate droplets of blood or other body fluids to prevent exposure of mucous membranes of the mouth, nose, and eyes. Gowns or aprons should be worn during procedures that are likely to generate splashes of blood or their body fluids.
2. Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or other body fluids. Hands should be washed immediately after gloves are removed.
3. All health-care workers should take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices during procedures; when cleaning used instruments; during disposal of used needles; and when handling sharp instruments after procedures. Refer to the policy and procedure manual of each clinical site for the specific methods for disposing of the objects mentioned above.
4. Although saliva has not been implicated in HIV transmission, to minimize the need for mouth-to-mouth resuscitation, mouthpieces, resuscitation bags, or other ventilation devices should be available for use in areas in which the need for resuscitation is predictable.
5. Health-care workers who have exudative lesions or weeping dermatitis should refrain from all direct patient care and from handling patient-care equipment until the condition resolves.
6. Pregnant health-care workers are not known to be at greater risk of contracting HIV infection than health-care workers who are not pregnant; however, if a health-care worker develops HIV infections during pregnancy, the infant is at risk of infection resulting from pre-natal transmission. Because of this risk, pregnant health-care workers should be especially familiar with and strictly adhere to precautions to minimize the risk of HIV transmission.

7. Body substances such as feces, airway secretions, and wound drainage, and urine always may contain potentially infectious organisms. The universal precaution system not only protects health-care workers from transmission of blood-borne pathogens, but also from other infectious agents found in moist body substances. Patients are protected from organisms present on the hands of personnel, and the staff's hands are protected from acquiring new organisms.

Immunization Requirements

Jackson College follows the policies of the clinical site and will require students to comply with all policies to submit health records and immunization requirements.

According to the Center for Disease Control (CDC) they recommend, all healthcare personnel (HCP) show evidence of immunity to measles, mumps, rubella and varicella. In addition, due to the potential exposure to blood or bodily fluids and risks related to direct patient contact, the CDC recommends that HCP protect themselves with vaccinations against Hepatitis B and Tetanus/Diphtheria/Pertussis, Influenza, SARS COVID-19, and be screened for Tuberculosis. Jackson College students must provide documentation of compliance with clinical partners and the CDC Healthcare Personnel Recommendations. Documentation of immunity must be a copy of an official immunization record or copies of lab reports indicating positive titers (self-reporting or parent's record of disease or vaccinations is not acceptable). See Appendix A-B

The clinical education site policy may require additional immunization not listed on this form in order to participate in the clinical education. The Allied Health/Nursing Department Coordinator will provide the student a list of the additional immunizations if different from the list provided on this form.

Students who are not fully vaccinated against COVID-19—regardless of the reasons for their declination of being vaccinated, and even if such declination is predicated upon a legally-cognizable disability or a sincerely held religious belief—the student may not be able to: (1) participate in an externship/practicum/Capstone Field Internship experience; (2) complete the requirements and graduate from the program; (3) sit for any licensing or certification examinations in the profession; and (4) be employed in the profession

Personal Illness or Injury: Any student who is unable to perform the routine duties of a student sonographer because of personal illness or injury must notify the Clinical Instructor and Program Coordinator as soon as possible. The student must notify the Clinical Instructor and Program Coordinator as soon as possible in writing of the anticipated length of the illness or disability. A medical release must be submitted prior to returning to the clinical education center.

Accidents (Including Needle Sticks):

While rare, accidents do occur in the clinical setting and on campus. If an incident occurs in the clinical setting, follow agency policy, including filling out and filing variance reports and seeking care if needed. Regardless of location (clinical or campus) a Jackson College accident report, available on the Jackson College website, must be completed online with the Office of Student Conduct within one week of occurrence. Incident Reporting Form: <https://cm.maxient.com/reportingform.php?JacksonCollegeMI> If emergent care is needed the student can chose to go to the emergency department, however, all treatment is at the student's own expense. Otherwise, it is highly recommended and encouraged for the student to see his or her primary health care provider, the Center for Family Health or the Jackson College Health Clinic for consultation and/or follow-up. The student is financially responsible for this consultation or follow-up. Depending on the nature and/or severity of the accident, a physician's release to return to the classroom or clinical site may be required.

Federal Law Concerning Chemical Hazards

Federal law requires that all individuals must be notified about hazardous chemicals present in the work place. This law applies to all occupations, with the basic purpose of raising the level of consciousness on chemical safety. There are safe levels and proper procedures or precautions to be followed when handling any chemical, just as there are when working with x-ray.

Chemical suppliers are required to prepare **Material Safety Data Sheets (MSDS)** for all chemicals in radiology. The MSDS should be accessible for your review. The clinical instructor will provide students with information specific to their department.

AIUM Statements on Diagnostic Medical Ultrasound Safety

AIUM STATEMENT ON IN VITRO BIOLOGICAL EFFECTS (Approved by the AIUM, March 1998)

It is difficult to evaluate reports of ultrasonically induced in vitro biological effects with respect to their clinical significance. The predominant physical and biological interactions and mechanisms involved in an in vitro effect may not pertain to the in vitro situation. Nevertheless, an in vitro effect must be regarded as a real biological effect.

Results from in vitro experiments suggest new endpoints and serve as a basis for design of in vivo experiments. In vitro studies provide the capability to control experimental variables and thus offer a means to explore and evaluate specific mechanisms. Although they may have limited applicability to in vivo biological effects, such studies can disclose fundamentals intercellular or intracellular interactions. While it is valid for authors to place their results in context and to suggest further relevant investigations, reports of in vitro studies which claim direct clinical significance should be viewed with caution.

AIUM STATEMENT ON CLINICAL SAFETY (Approved March 1998, Reaffirmed 1992)

Diagnostic ultrasound has been in use since the late 1950's. Given its known benefits and recognized efficacy for medical diagnosis, including use during human pregnancy, American Institute of Ultrasound in Medicine herein addresses the clinical safety of such use:

No confirmed biological effects on patients or instruments operators caused by exposure at intensities typical of present diagnostic ultrasound instruments have ever been reported. Although the possibility

exists that such biological effects may be identified in the future, current data indicate that the benefits to patients of the prudent use of diagnostic ultrasound outweigh the risks, if any that may be present.

AIUM STATEMENT ON SAFETY IN TRAINING AND RESEARCH (Approved March 1998)

Diagnostic ultrasound has been in use since the late 1950's. No adverse biological effects on patients resulting from this usage have ever been reported. Although no hazard has been identified that would preclude the prudent and conservative use of diagnostic ultrasound in education and research, experience from normal diagnostic practice may or may not be relevant to extended exposure times and altered exposure conditions. It is therefore considered appropriate to make the following recommendations:

In those special situations in which examinations are to be carried out for purposes other than direct medical benefit to the individual being examined, the subject should be informed of the anticipated exposure conditions, and of how these compared with conditions, and of how these compare with conditions for normal diagnostic practice.

When there is no direct medical benefit to a person undergoing an ultrasound exam (e.g. training or research), it is necessary to **educate** the person regarding the risks of the procedure and obtain his or her **informed consent**.

Exhibit D cont.

The AIUM suggests
Do not perform studies without reason
Do not prolong studies without reason
Use the minimum output power and maximum amplification needed to optimize the image

IN VIVO BIOEFFECT INVESTIGATIONS

In vivo means "observed in living tissue"

The following are recent conclusions of in vivo bioeffects investigations:

- When compared with unfocused beams, focused beams require higher intensities to produce bioeffects. This occurs because smaller beam area means less thermal build up and less interactions with cavitation nuclei.

Note: An unfocused ultrasound beam causes a higher temperature elevation than a focused ultrasound beam at the same intensity.

- When compared with a broad unfocused beam, highly focused ultrasound is much less likely to cause bio effects.

Maximum intensities (SPTA):

100mW/cm² - unfocused

1W/cm² - focused

CONCLUSIONS REGARDING IN VIVO MAMMALIAN BIOEFFECTS

Approved by the AIUM, October 1992

In the low megahertz frequency range there have been (as of this date) no independently confirmed significant thermal biological effects in mammalian tissues exposed in vivo to unfocused ultrasound with intensities below 100 mW/cm², or to focused ultrasound with intensities below 1W/cm² SPTA.

IN VITRO BIOEFFECTS INVESTIGATIONS

In vitro means “observed in test-tubes” in an experimentally controlled environment.

Advantage of in vitro studies: Careful measurements can be made under rigorous experimental conditions.

Academic Policies and Guidelines

A VSON student must achieve a 2.0 in each course within the curriculum while they are in the program and must maintain this overall GPA to receive the Associate of Applied Arts and Science Degree or the Certificate Degree. A student will be dismissed from the program if a required course in the program is unsatisfactorily completed.

Grades will be changed only for incomplete grades or faculty/clerical error. The last grade earned will be used in computing a student’s cumulative grade point average. All grades will remain on the student’s academic records and any grade not used to compute a student’s GPA will be designated. The complete credit hours will be counted only once for each degree/certificate purpose.

The DMS student must complete all course/program requirements for graduation within a maximum of two (2) years from their official beginning of their DMS Program.

Cheating: Cheating is defined as: copying another’s answers; giving answers on tests to another; bringing answers to a test situation; plagiarism including copying other students papers, etc.; forging competency evaluation forms; forging or misrepresenting clinical hours; any other act which does not truly reflect the student’s progress. Any student found cheating in any DMS course will fail that course and a written warning will be issued following the due process procedure.

Drug Free Campus Policy: For the well-being and safety of all concerned, unlawful manufacturing, possessing, distribution, or the ingesting of controlled substances or illegal drugs such as, but not limited to, marijuana, narcotics, stimulants, depressants, and hallucinogens, are strictly prohibited on the college's/clinical premises, equipment, job site, or during college activities.

No person shall report for work, no student shall report for class, and no person shall come on college/clinical premises while legally under the influence of alcohol or other illegal drugs. No person shall become impaired/intoxicated by the use of alcohol, controlled substances and/or illegal drugs on college/clinical premises.

Individuals who choose to violate the above becomes subject to institutional and legal sanctions. The college will cooperate with outside law enforcement agencies as they carry out their responsibilities both on and off campus.

Students found to be in violation of the college Drug Free Campus Policy will be subject to discipline and sanctions set forth in appropriate institutional manuals up to and including expulsion. Where applicable, individuals will also be subjected to local, state, and federal legal sanctions.

Course Withdrawal

Students are responsible for understanding the consequences of withdrawing if they are receiving financial aid.

- Students who withdraw from the program because of health problems will be required to obtain a written release (from a physician or licensed health care provider) that they may return to the program, without restrictions, before being re-admitted. Re-admission is dependent on space availability. (see Student Health Issues)
- If the student is a financial aid recipient, the student is advised to consult their student Navigator and the Financial Aid Office regarding any pay back responsibilities.
- If a student does not officially withdraw from a course and is no longer attending, the student will receive a 0.0 grade.

Application for National Registry Exams

Upon successful completion of the DMS program, students can apply with the American Registry for Diagnostic Medical Sonographers (ARDMS) to take the registry exam. As the application process can change from time to time, it is recommended that students refer to the ARDMS website for instructions on the instructions on the application process. www.ardms.org

Graduation & Commencement

An application for graduation needs to be filed for each degree. Students should refer to the college's Graduation & Commencement process located on Jackson College's webpage at <http://www.jccmi.edu/StudentServices/Registration/graduation.htm>

Clinical Assessment

Clinical assessment of learning in the clinical setting is conducted using multi modes of review. Jackson College uses a cloud system called Trajecsyst: <https://www.trajecsyst.com/> to track and report clinical assessments. Students will purchase access for one year to the Trajecsyst cloud.

Jackson College Competencies and Competency Indicators are defined by

Competency Standards

The Commission on Accreditation of Allied Health Education Programs and can be found at: <https://www.caahep.org/CAAHEP/media/CAAHEP-Documents/DMSStandards.pdf>

Competency Indicators

JRC-DMS Vascular Technology and can be found at: <https://www.jrcdms.org/pdf/NEC%20Vascular%20Technology.pdf>

Participation Description

***Background:** Imitate demonstrated skill through pre-post scanning (1-4 images obtained, but may not be saved)

***Direct Assistance:** Minimal verbal and/or hands-on assistance through exam performance. Review of case initiated by learner and instructor. Written and oral reports completed by learner and instructor.

***Indirect Assistance:** Minimal to no assistance through exam performance, Case review observation could be from remote viewing stations or direct supervision. Review of case initiated and communicated via written and oral report by learner.

Demonstrate achievement of clinical competency through the performance of sonographic examinations of the vascular system according to practice parameters established by national professional organizations and the protocol of the clinical affiliates. Clinical competencies must include evaluation and documentation of:

- 1) Identification of anatomical and relational structures
- 2) Differentiation of normal from pathological/disease process
- 3) Image optimization in grayscale, color Doppler and spectral Doppler
- 4) Measurement techniques
- 5) **Vascular competencies**
 - a) Extracranial cerebrovascular including vertebral vessels
 - b) Aortoiliac duplex
 - c) Ankle and brachial pressures/ABI
 - d) Lower extremity arterial duplex
 - e) Lower extremity venous duplex
 - f) Lower extremity venous insufficiency testing
 - g) Upper extremity venous duplex

The above may be completed as individual clinical competencies or may be incorporated with other structures/techniques as part of a limited or complete examination.

Demonstrate proficiency in the technique of:

- 1) Intracranial cerebrovascular

- 2) Upper extremity and digital arterial physiologic testing
- 3) Upper extremity arterial duplex
- 4) Palmar arch
- 5) Lower extremity and digital arterial physiologic testing
- 6) Lower extremity exercise testing
- 7) Vessel mapping
- 8) Visceral vascular

The above proficiencies may be demonstrated in a clinical setting or in a simulated environment.

Exam Challenge-Direct Assessment

An exam challenge can be initiated for one of the following:

1. Decrease in levels between scanning assessments
2. Pause in level advancement between scanning assessments
3. Affective, Cognitive, and Psychomotor evaluations below 85%
4. Questionable skill attainability concern

The duration of the exam challenge is 3 weeks unless additional time is needed. Exam challenge criteria is designed to meet individual student's needs. The log sheet will be placed in the student folder with instructions.

Performance Notice Procedure

Students who fail to meet academic, clinical, professional, or program requirements will receive a written performance notice. The performance notice will be issued as soon as possible after the problem is identified. Suggestions for improvement may include any reasonable action the faculty deems appropriate to correct the behavior. Depending on the severity of the behavior, consultation between the Lead Faculty, Student Ombudsman, Dean of Nursing and Allied Health, and Department Chair. If the student's behavior or performance is of a serious nature, it may necessitate immediate dismissal from the program. If a student is immediately dismissed a performance notice will not be issued; instead, a dismissal notice explaining the circumstances of the dismissal will be completed (see section on Program Dismissal.) The criteria for issuing a performance notice include but are not limited to:

1. Unsatisfactory achievement of clinical and/or academic objectives.
2. *Unsafe clinical practice. It is understood that unsafe practice may include either a combination of several repetitive examples of the following:
 - a. Errors in recording a pertinent clinical data
 - b. Failure of safely adopting basic patient care skills to actual patient care situations resulting in actual or potential patient harm. This is relative to the degree of completion of the sonography program.
 - c. Failure to demonstrate sound judgment relative to the student's degree of sonography curriculum completion
 - d. Unsafe or inappropriate diagnostic service to the patient
 - e. Failure to follow universal precautions or blood-borne pathogens processes

3. *Failure to establish effective working relationships with clinical site team members and/or JC faculty.
4. *Failure to establish effective relationships with patients.
5. *Violation of either the SDMS (www.sdms.org) or ASRT (www.asrt.org) codes of ethics.
6. *Students are prohibited from being under the influence of alcohol or an illegal drug while at a clinical site, in class, or participating in other aspects of the program. If there is reason to believe that a student is under the influence of drugs and/or alcohol, they will be required to undergo drug and/or alcohol testing. If the student refuses to submit to a test or the student's test returns a positive result, the student will be immediately removed from the program.
7. *Failure to assume the responsibilities of a student in the DMS program:
 - a. Excessive tardiness
 - b. Inappropriate personal appearance or inappropriate clinical behavior
 - c. Unethical behavior, i.e., lying, cheating, stealing, etc.
 - d. Repeated failure to submit required written work in the clinical area or repeated lateness in submitting work
8. Failure to meet the course work and "Clinical Guidelines & Competency Levels" of the Jackson College DMS Program.
9. *Failure to submit clinical documents such as, evaluation forms, time sheets, log sheets.
10. *Failure to comply with Jackson College's Student Code of Conduct or Student Rights and Responsibilities Handbook.
11. *Failure to comply with HIPAA laws.
12. *Failure to comply with program policies.

Serious violations will warrant immediate removal from the program without a verbal or written warning issued (note – those marked may not be an all-inclusive list).

Student's reply to the warning notice

The student is required to reply to the warning notice **5 business days of the notice**, using the student corrective action reply (Exhibit E). The student's reply must show evidence of problem solving regarding the identified unsatisfactory behaviors. The reply must include the following:

- a. Student's perception of the problem
- b. Awareness of the seriousness of the Warning Notice
- c. Methods that will be utilized to correct problem

Resolution of the warning notice

At the end of the established probationary period, the student and the instructor will again have a conference to discuss the effectiveness of the corrective action taken. If the student has progressed to another clinical area during this time, the student will be evaluated by both the instructor who issued the Warning Notice and the current instructor.

1. If the student shows satisfactory improvement, the Warning Notice will be resolved. A written evaluation of the student's progress will be submitted, signed and dated by both the instructor(s) and the student.

This will remain on file until the student graduates. Copies go to the, Program Director, the Clinical Instructor and the student.

Instructor and the student.

1. If the behavior that originally elicited the warning notice reoccurs, the student will automatically fail the clinical portion of that course, thus fail the course and is dismissed from the DMS-program.
2. If the student does not show satisfactory improvement after receiving a warning notice, the recommendations of the issuing instructor will be followed.

Changes in clinical schedule due to a warning notice

When issued a warning notice, students:

1. May have their schedule changed if possible, by the Program Director in consultation to prevent loss of academic time.
2. Will be held back in their program by the Program Director if schedule rearrangement is not feasible.

Program Dismal

If a student should lose their clinical site, the Program Director will investigate to determine the validity of the dismissal. The student will be notified by the program director of the student's status within the program.

[Students will remain in all didactic courses and complete the current semester only.](#)

After dismal the following steps are recommended:

1. Discuss with your program director whether there are any classes you can/should complete at this time.
2. Consult with the Office of The Student Ombudsman.
3. Meet with your Student Success Navigator in Student Services.
4. Refer to your program handbook for information regarding the re-consideration process.

The student is not eligible to reapply to the program and must follow the readmission process if they want to re-enter the program.

Re-Admission Exclusions:

Any dismissal considered a serious violation as listed in section- Student Conduct Warning Notice Procedure.

*Serious violations will warrant immediate removal from the program without a verbal or written warning issued (note – those marked may not be an all-inclusive list).

Appeal Process

Students should refer to the college's academic complaint process located on the Dean's webpage at www.jccmi.edu/administration/deans/StudentComplaintProcess.html.

Personal Problem Solving

If any DMS student is having difficulties maintaining the program course work, personal conflicts, or complaints regarding the program, the following individuals may be contacted to assist the student:

Dean of Health Sciences and Career & Technical Trades	Heather Ruttkofsky	(517) 796-8502
Allied Health Faculty Chairperson	Stephan Geiersbach	(517) 796-8494
Vascular Program Director	Heather Ruttkofsky	(517) 796-8531
Center for Student Success		https://bit.ly/3w7KHcE

Re-Admission to Sonography Program

Criteria for appeal: loss of clinical site; failure of any program course

Once the student is dismissed the only option is to be readmitted to the program is through the readmission process. The readmission process consists of: the student will send a letter requesting re-admission to the Program Director and Chair of Allied Health. The request for re-admission letter must include:

1. The student's perception of the problem leading to dismissal and explanation of contributing circumstances.
2. Demonstration of an understanding and awareness of the problem.
3. What the student has done to rectify the problem.
4. The student's detailed plan for success in the sonography course to be repeated and future sonography courses if re-admitted.

The request will be forwarded to the Program Director. The Committee will be comprised of two allied health faculty other than the faculty directly involved in the dismissal, the Chair of Allied Health, and the Student Ombudsman. The Allied Health Department Re-Consideration Committee will meet as needed.

The student and faculty member involved in the dismissal will be informed by the Program Director of the time, date and place of the meeting. At the meeting, the student will present a detailed academic success plan. The faculty member involved in the dismissal will present an overview of the behaviors that led to the dismissal and his/her support for or against re-consideration. In absence of the involved faculty, the lead faculty of the course will present. The student has the choice of being present or not during the involved faculty's presentation. The student and involved faculty will then be excused from the meeting.

The Allied Health Department Re-Admission Committee, after reviewing the student's history, the documents described above, and faculty recommendation will determine if the student will be re-admitted to the sonography program using the readmission criteria found in Exhibit F. The Allied Health Department Re-Consideration will look for compelling evidence that the reasons for the dismissal can be corrected with certain changes, and that these changes improve the chances for a successful outcome. If the student is readmitted, the Allied Health Re-Admission Committee along with the Program Director will determine if additional courses must be repeated and will detail what other requirements (i.e. skills validation) are associated with the opportunity to repeat the failed course and continue in the program.

The Chair of Allied Health will notify the student in writing of the **final** determination and any re-admission conditions. Clinical site availability cannot be guaranteed.

The decision of the Allied Health re-admission committee decision is final. Once a student is dismissed from a DMS program and denied re-admission, that student will not be allowed to apply for admission into any DMS program for three years who are not dismissed for serious violations as defined in the DMS handbook (Student Conduct Warning Procedure, page 11-12)

A student who applies for re-admission will need to have their written request received by the Allied Health Office by the following deadline:

Vascular Sonography- January 31 of the year the student is seeking reconsideration

Exhibits

Dear Student:

The Health Certificate Form (Exhibit A) must be completed by the physician of your choice for the sole purpose of determining and documenting your physical status prior to the clinical component of your Allied Health Program.

This medical statement must be completed and uploaded to Castle-Branch prior to clinical semester.

I strongly suggest that you retain a copy for your own records.

Sincerely,



Heather Ruttkofsky
Program Director

Exhibit A

Jackson College
Health Certification Form
Allied Health & Nursing Departments

Jackson College follows the policies of the clinical site and will require students to comply with all policies to submit health records and immunization requirements.

1. A Statement of Physical/Emotional Fitness
2. Current Health Provider CPR certification
3. Verification of Immunization Status
4. Health Insurance

The completed Health Certificate Form and copies of the required records must be provided before the student may begin clinical course studies. Students will not be allowed in clinical if current documentation is not submitted.

According to the Center for Disease Control (CDC) they recommend, all healthcare personnel (HCP) show evidence of immunity to measles, mumps, rubella and varicella. In addition, due to the potential exposure to blood or bodily fluids and risks related to direct patient contact, the CDC recommends that HCP protect themselves with vaccinations against Hepatitis B and Tetanus/Diphtheria/Pertussis, Influenza, SARS COVID-19, and be screened for Tuberculosis. Jackson College students must provide documentation of compliance with clinical partners and the CDC Healthcare Personnel Recommendations. Documentation of immunity must be a copy of an official immunization record or copies of lab reports indicating positive titers (self-reporting or parent's record of disease or vaccinations is not acceptable). See Appendix A-B

The clinical education site policy may require additional immunization not listed on this form in order to participate in the clinical education. The Allied Health/Nursing Department Coordinator will provide the student a list of the additional immunizations if different from the list provided on this form.

Students who are not fully vaccinated against COVID-19—regardless of the reasons for their declination of being vaccinated, and even if such declination is predicated upon a legally-cognizable disability or a sincerely held religious belief—the student may not be able to: (1) participate in an externship/practicum/Capstone Field Internship experience; (2) complete the requirements and graduate from the program; (3) sit for any licensing or certification examinations in the profession; and (4) be employed in the profession

A. Identification

Student's Name:	Student ID Number:
------------------------	---------------------------

B. Statement of Physical/Emotional Fitness (MUST BE COMPLETED BY A PHYSICIAN, PHYSICIAN ASSISTANT, OR NURSE PRACTITIONER). Please review the attached technical standards and functions for _____ (insert program of study).

I have reviewed the attached technical standards and functions for this student's program of study and in my judgment this student is physically and emotionally capable of participating in the Jackson College Health Occupation program indicated above.	
_____ Signature of physician, physician assistant, or nurse practitioner	
_____ Type or print name of physician, physician assistant, or nurse practitioner	
_____ Address	
_____ Telephone Number (including area code) (Required)	_____ Date

Any student with a condition that could impact decision making or the physical ability to provide client/patient care must discuss his/her condition with the program director for his/her program of study.

Immunization Requirements

All Required Documentation Must Accompany This Form

CPR & TB Must Remain Current throughout the duration of the program

C. CPR Certification and Immunization Checklist:

1. CPR Certification (BLS for Health Care Provider via The American Heart Association)
 - Upload copy of both the front and back of card to CastleBranch

D. Required Immunizations:

Submit Copies Of An Official Immunization Record Or Lab Reports For The Following Immunizations. Keep Originals For You Own File

1. Rubella (German Measles)
 - Documentation of 2 doses of MMR 4 weeks apart **OR** a positive Rubella titer
2. Rubeola (Hard Measles)
 - Documentation of 2 doses of MMR 4 weeks apart **OR** a positive Rubeola titer
3. Parotitis (Mumps)
 - Documentation of 2 doses of MMR 4 weeks apart **OR** a positive Mumps titer
4. Varicella (Chicken Pox)
 - Documentation of 2 doses of Varicella given 28 days apart **OR** a positive Varicella titer
5. Diphtheria/Tetanus/Pertussis (TD or Tdap)
 - Documentation of a booster within the past 10 years. If booster is needed recommend a Tdap
6. Hepatitis B
 - Documentation of 3 dose Hepatitis B series at 0-1-6 month interval **OR** a positive Hep B surface antibody titer
7. COVID-19

E. Two Step Tuberculin Skin Test (TST):

Submit The Following

1. Documentation of first negative TST
2. Documentation of second negative TST, within 7-21 days from the first negative TST
3. If first TST is positive you need documentation from your health care provider of evaluation and treatment **OR** chest x-ray that has been in the past 12 months.
4. Two consecutive annual single step test. Second test must be administered within the past 12 months
5. Negative QuantiFERON Gold blood test, administered within the past 12 months
6. Negative T-Spot blood test administered within the past 12 months

F. Seasonal Flu Shot

Submit Dates and Lot Numbers For The Following:

1. Documentation of Flu Vaccination and lot #

NOTE: It is the student's responsibility to keep their health record updated and evidence submitted to CastleBranch prior to the expiration date. Failure to do may result in the inability to participate in the program.

By signing below I give my permission for Jackson College to release any and all information contained in this record to any clinical facility that I am assigned to. I also understand that I am responsible for the accuracy of the information I have provided and that I am required to notify Jackson College if there is a change in my health that could potentially impact my ability to participate in my program of study. I further acknowledge that failure to provide accurate and complete health records and/or failure to notify Jackson College of a change in my health that could potentially impact my ability to participate in my program of study could result in me being dismissed from my program of study.

Student Signature _____ **Date** _____

Exhibit B

TECHNICAL STANDARDS FOR ADMISSION

NURSING AND ALLIED HEALTH DEPARTMENT JACKSON COLLEGE

The Nursing and Allied Health Department faculty has specified the following non-academic criteria which applicants generally are expected to meet in order to participate in the Department of Nursing and Allied Health Sciences programs and professional practice. These technical standards are necessary and essential and have been developed to provide for the health and safety of the patients receiving care from the Nursing and Allied Health Department program students.

OBSERVATION – The applicant must be able to participate in all demonstrations, laboratory exercises and clinical practicum in the clinical component and to assess and comprehend the condition of all patients assigned for examination, diagnosis and treatment.

- Vision enough to see fine detail, and sufficient to be able to read and accurately complete reports in charts, vision sufficient to differentiate shades of gray and color, to observe patient's skin color, measuring exact amounts of parenteral medications and diagnostic real-time images.

COMMUNICATION – The applicant must be able to communicate with patients to effectively elicit patient compliance, understand and assess non-verbal communications; and be able to effectively transmit information to patients, physicians, paraprofessionals, faculty and staff in a timely way.

- Speech sufficient to be understood by others; ability to understand the communication with patient and health care team. Hearing sufficient to understand the spoken word, hear variations in physical assessment findings, auscultate lung sounds, hearts sounds, bowel sounds. Hearing sufficient to differentiate Doppler signals.

PSYCHOMOTOR – The applicant must have motor functions sufficient to elicit information from patients by appropriate diagnostic or therapeutic maneuvers; be able to perform basic tasks; possess all necessary skills to carry out diagnostic or therapeutic procedures; be able to interpret movements reasonably required to provide general care and emergent treatment/actions as necessary for patient safety and comfort.

- Physical coordination including fine motor functions sufficient to perform procedures accurately, operation of instrument panels, position patient efficiently and safely

- Sufficient muscle strength and lower back and knee stability to lift patients in a safe manner, physically assisting patients, moving beds and equipment. Able to stoop when necessary.

INTELLECTUAL / CONCEPTUAL INTEGRATIVE AND QUANTITATIVE ABILITIES – The applicant must be able to measure, calculate reason, analyze, evaluate, and synthesize information and observations. Problem solving, the critical skill demanded of Allied Health Practitioners, requires all of these cognitive abilities. In addition, the applicant must be able to comprehend three-dimensional structures and understand the spatial relationships of these structures.

- Sufficient psychological stability and knowledge of techniques/resources to be able to respond appropriately and efficiently in emergent situations in order to minimize dangerous consequences either patient related or environment related.

BEHAVIOR AND SOCIAL ATTRIBUTES – The applicant must possess the emotional health required for full utilization of intellectual abilities; execute appropriate medical judgment; the prompt completion of assigned or non-assigned responsibilities for care of and service to the patient; and the development of supportive and effective relationships with patients. Applicants must be able to tolerate physical and mental workloads, function effectively under stress, adapt to changing environments and conditions, display flexibility and function in the face of uncertainties inherent in the clinical setting and with patients. Compassion, integrity, concern for others, interest and motivation are personal qualities with each applicant should possess.

- Sufficient endurance to walk for extended periods of time, up to twelve hours per day.
- Ability to learn technical, medical, and pathophysiological information.
- Free of Chemical Impairment during participation in program including classroom, laboratory and clinical settings.

You need to be able to perform each of these tasks with or without accommodation. If an accommodation is necessary because of a disability it is your responsibility to provide documentation and to request accommodation. The college will endeavor to satisfy requests for reasonable accommodations however it is not guaranteed.

**TECHNICAL STANDARDS AND FUNCTIONS THAT ARE
REQUIRED TO SUCCESSFULLY COMPLETE AN ASSOCIATE
IN APPLIED SCIENCE DEGREE IN VASCULAR SONOGRAPHY**

STANDARDS

FUNCTIONS

<p>Vision sufficient to differentiate shades of gray and color and to observe diagnostic real-time images. Vision sufficient to delineate ill-defined structures, borders, anatomical structures and pathological entities in three-dimensional projections.</p>	<p>Scanning with real-time Sonography system for the purpose of delineating normal anatomical structures from abnormal pathological entities.</p>
<p>Vision sufficient to be able to read and accurately complete reports and charts.</p>	<p>Reading and completing of charts, reports and interpretation of requisitions.</p>
<p>Speech sufficient to be understood by others; ability to understand the communication of others.</p>	<p>Communicating with patients, and other health care professionals.</p>
<p>Hearing sufficient to differentiate Doppler signals.</p>	<p>Conduct Doppler studies of anatomical arterial and venous structures for the purpose of diagnosing abnormal blood flows and pathological states.</p>
<p>Vision and physical coordination sufficient to perform scanning tasks accurately, efficiently and safely.</p>	<p>Manipulating of transducer while observing real-time image and conducting diagnostic study.</p>
<p>Sufficient fine motor functions and coordination to perform tasks involving manipulation of scan probes, instrument panels, patient position and safety.</p>	<p>Obtaining diagnostic real-time images for diagnostic interpretation.</p>

Sufficient muscle strength, lower back and knee stability to handle patients in a safe manner.	Lifting and transferring of patients, physically assisting patients, moving and manipulation of ultra-Sonography systems.
Sufficient psychological stability and knowledge of techniques/resources to be able to respond appropriately and efficiently in emergent situations in order to minimize dangerous consequences either patient related or environment related.	Recognizing and responding appropriately in emergency situations.
Ability to sit or stand for extended periods of time, up to 7-8 hours per day.	Scanning requires sitting or standing for extended periods of time.
Ability to learn technical, medical, and pathophysiological information.	Completion of clinical and didactic components of program requires ability to learn.

You need to be able to perform each of these tasks with or without accommodation. If an accommodation is necessary because of a disability it is your responsibility to provide documentation and to request accommodation. The college will endeavor to satisfy requests for reasonable accommodations however it is not guaranteed.

Exhibit C

JACKSON COLLEGE
VASCULAR SONOGRAPHY
REQUEST TO SCHEDULE CLINICAL ABSENCE

Student Name: _____ Date: _____

Requested date of absence(s): _____

Semester: DMS 161 _____ DMS 265 _____ DMS 266 _____

Clinical Education Center: _____

Note: Jackson College does not award sick days or personal days. If a student is (unexcused) absent 2 or more days per semester a written warning will be issued and the student will be dismissed from the DMS VSON program if any additional days are missed. All absences, including doctor appointments must be approved by the program faculty and clinical site instructor.

Please denote: 1st Sick Day, 2nd Sick Day, etc. Describe your plan to make-up the missed clinical time.

Student's signature: _____

Clinical Coordinator's signature: _____

Program Director's signature: _____

Directions: Complete this form at least one week prior to requested date of absence. Give copies to the clinical coordinator, clinical instructor, and the program director. Retain one copy for your own records.

This form may be revised as necessary by the Program Director.

Exhibit D

Jackson College Scan Subject Release Form (student or volunteer)

I, _____ (printed name) that I am a ___JC employee

_____ a JC Student or _____ neither a student or employee of Jackson College, elect to participate in the optional volunteer learning experience of live ultrasound. By signing this release form, I acknowledge that I have read the [American Institute of Ultrasound in Medicine \(AIUM\)](#) statements informing me of the possible risks of ultrasound scanning. It is my understanding that my experience in the classroom will be limited by my instructor who serves as an information source and observer, not as a guarantor of safety. It is also my understanding that I will be advised to consult with my personal physician at my own expense if the instructor observes an abnormality during the course of the volunteer scanning experience.

I understand that it is my responsibility to consult a physician regarding any possible negative effects which may result from my participation in the ultrasound scanning activity and the effects that it may have on my health and well-being. I further release Jackson College of any responsibilities for any and all physical/mental conditions that may be believed to have resulted from any scanning session whereby I was utilized as a scan subject.

I realize that my participation in this program is completely voluntary and the purpose of participating in live ultrasound scanning is to learn as much as possible about ultrasound. I understand that any scanning examination in the classroom is for educational purposes only and is not diagnostic in nature.

By signing this document, I certify that I have read and understand its contents and I consent to an ultrasound examination performed by students, faculty, and/or staff affiliated with the Jackson College Diagnostic Medical Sonography programs. I understand a physician will not be reviewing any of the images documented today and a medical diagnosis will not be provided.

I further agree to monitor the time I was scanned and to complete accurate scan time reporting sheets as directed by the DMS instructor/s.

Printed Name _____

Signature _____ Date _____

AIUM Prudent Clinical Use and Safety of Diagnostic Ultrasound

Diagnostic ultrasound has been in use since the late 1950s. Given its known benefits and recognized efficacy for medical diagnosis, including use during human pregnancy, the American Institute of Ultrasound in Medicine herein addresses the clinical safety of such use: No independently confirmed adverse effects caused by exposure from present diagnostic ultrasound instruments have been reported in human patients in the absence of contrast agents. Biological effects (such as localized pulmonary bleeding) have been reported in experimental mammalian systems at diagnostically relevant exposures, but the clinical relevance of such effects is either not significant or is not yet known. Increased outputs and time of exposure can increase the likelihood of bioeffects. Ultrasound should be used only by qualified health professionals to provide medical benefit to the patient. Ultrasound exposures during examinations should be as low as reasonably achievable (ALARA).^{1,2}

References

1. American Institute of Ultrasound in Medicine. Official Statements: As Low As Reasonably Achievable (ALARA) Principle. American Institute of Ultrasound in Medicine website. <https://www.aium.org/officialStatements/39>. Reapproved April 2, 2014.
2. American Institute of Ultrasound in Medicine. Official Statements: Recommended Maximum Scanning Times for Displayed Thermal Index (TI) Values. American Institute of Ultrasound in Medicine website. <https://www.aium.org/officialStatements/65>. Approved October 30, 2016.

Exhibit E

Student Corrective Action Reply

Student _____ Date _____

My perception of the problem:

My awareness of the seriousness of the problem:

Steps I will implement to correct the problem:

Students Signature _____

Educational Coordinator Signature _____

This form is due within three days of issuance of Corrective Action Notice.

Distribution: Student/Student's File

Exhibit F

Re-Admission Criteria	0	1	2	SCORE
Submitted written Success Plan Outlines criteria for re-admission	No awareness of the problem; incomplete submission of criteria; lacks awareness of the problem.	Partial awareness of the problem; poorly presented plan to rectify the problem	Plan fully demonstrates awareness of the problem, contributing factors and a plan to correct or rectify problem.	
<ul style="list-style-type: none"> • Problem-solving actions to overcome the problem(s) • Plan must be specific, goal oriented 	Does not communicate awareness of the problem- and problem-solving actions	Partial communication of the problem; poorly presented plan to rectify the problem	Plan fully communicated awareness of the problem, contributing factors and a plan to correct or rectify problem.	
Individualized Plan of Action <ul style="list-style-type: none"> • Student’s perception of the problem leading to dismissal/withdrawal. • Analysis of factors that lead to failure/dismissal/withdrawal which demonstrate an awareness of the problem. 	Does not communicate perception and analysis of the problem- and problem-solving actions	Partially communicates perception and analysis of the problem- and problem-solving actions	Plan fully communicates perception and analysis of the problem- and problem-solving actions	
Exhibited professionalism in behavior and communication during formal re-admission process.	Inappropriate communication, failure to upload required documents, no call, no show for appointments.	Unclear communication, partially uploaded documents, late for scheduled appointments. (Dress non-business casual formal face-to-face meeting).	Communicated clearly and concisely, uploaded all documents in a timely manner, Arrived on time. (Dressed business casual formal face-to-face meeting).	

SCORING RUBRIC:**0-5 = Student candidate does not meet minimum criteria for re-admission****6-7 = Student candidate meets minimum criteria for re-admission****8 = Student exceeds minimum criteria for re-admission****Exhibit G**

Technology/Software

Operating System	Processor	Disk Storage	Memory	Video Card	Minimum Screen Resolution	Input Ports	Browser Requirements	Webcam	Internet Connection
Windows 7, 8, 8.1, 10; Mac OS X 10.11; macOS 10.12, 10.13, 10.14, 10.15	Intel Core 2 Duo or AMD Athlon X2 at 1.5 GHz or faster	Up to 30 GB available disk space depending on modules purchased	2 GB RAM	NVIDIA GeForce 9000 or greater, ATI/AMD Radeon 5000 or newer, most Intel HD Graphics or newer**	1024×768	One USB port, directly accessible or via USB-C adapter	Up to date Google Chrome or Mozilla Firefox	Required	Broadband internet connection is required

Exhibit H

Butterfly IQ User Agreement (Handheld, Whole Body **Ultrasound** Device)

The user agreement is between _____, 2020 and _____ 2021 (the "Effective Date"), by and between Jackson College and _____ **(STUDENT)**

User read, understood, and agreed to the following

A. Scope of Use

1. The Butterfly IQ equipment must be used exclusively for educational purposes;
2. Users must use appropriate speech and expression when using the Butterfly IQ equipment;
3. Users will be expected to adhere to the same standard of conduct expected in the classroom;
4. At all times, Butterfly IQ equipment may be used only during scheduled sessions supervised by appropriately credentialed faculty;
5. Users must avoid copyright violations;
6. Users should understand that there is no expectation of privacy in any and all uses of Jackson College technology resources;
7. Users must respect the privacy rights of others(HIPAA); and
8. Users must avoid substantial and material disruption of the educational process for the school community.

B. Prohibited use

1. Users may not access, send or display inappropriate materials through the use of Butterfly IQ equipment;
2. Users may not use the Butterfly IQ equipment for non-educational purposes;
3. Users may not use profane, obscene, vulgar or abusive language
4. Users may not use Butterfly IQ equipment to harass, insult or attack others;
5. Users may not use the Butterfly IQ equipment for commercial or for illegal purposes;
6. Users may not use another student's Butterfly IQ cloud account;
7. Users may not damage Butterfly IQ equipment. Users are to be held liable for any damage to Jackson College property.

C. Liability

1. User will hold Jackson College harmless in the event of liability: misuse, theft, loss, damage, gross negligence or willful misconduct.
2. User will not be awarded completion degree in the event of: misuse, theft, loss, damage, gross negligence or willful misconduct, failure to return ButterFly IQ in working condition as received.
3. User will assume current market replacement cost of ButterFly IQ handheld, whole body **Ultrasound** Device

D. Maintenance

1. Users will follow the [ButterFly IQ maintenance](#) manual (referenced pages 47-52)
2. Users will follow the [Butterfly IQ instructions](#) for charging ButterFly IQ handheld, whole body **Ultrasound** Device (referenced pages 21-23)

Student Name _____ Date _____

Student Signature _____

ButterFly IQ Asset Tag# _____

Jackson Employee Signature _____ Date _____

Acknowledgement Form

I hereby acknowledge that I have received, read and understand the Jackson College VSON Student Handbook. I further agree to follow all policies and procedures within the handbook.

I understand while attending the clinical site of the VSON program I am expected to follow all reasonable rules and regulations of policies and procedures of the assigned clinical site.

I understand that failure to abide by these rules and regulations may result in dismissal from the VSON Sonography program.

I further understand that my signature below would allow personnel from the accrediting body, JRC, to review my student file during a formal audit of the VSON program.

DATE: _____

NAME: _____

SIGNATURE: _____

This acknowledgement form needs to be completed and submitted to the Allied Health Office (JW 231) within **ten days after receipt** of the VSON Student Handbook.