PENNSYLVANIA INSTITUTE OF TECHNOLOGY DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM



STUDENT HANDBOOK 2023-2024

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This handbook is an addendum to Pennsylvania Institute of Technology Catalog of Courses and its Student Handbook and applies only to the Diagnostic Medical Sonography (DMS) Program and its students. Policies that are addressed in the College Catalog of Courses and the Student Handbook apply to the DMS Program and its students.

Dear Sonography Student,

It is our privilege and honor to welcome you to the **Pennsylvania Institute of Technology (PIT) Diagnostic Sonography Program (DMS).** Congratulations on your acceptance into this highly competitive program.

We have entered a remarkable time for sonography. The demand for knowledgeable and compassionate sonographers has never been greater. This profession requires independent judgment and the ability to critically think through complex issues.

We look forward to meeting each of you and becoming a *partner* in your success. Being a partner in any endeavor is a shared responsibility. Your dedication as an active participant will determine your experience. Our goal is for each of you to become a registered sonographer and help improve the health of your patients.

Our advice is to read through this handbook, make sure you understand it and can abide by the policies. Please do not hesitate to ask questions.

Best wishes on behalf of all the staff and faculty at PIT. Have a healthy journey.

Ms. Denise Boyle MS, RDMS Director of Sonography Pennsylvania Institute of Technology 800 Manchester Ave. Media, PA 1906

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PENNSYLVANIA INSTITUTE OF TECHNOLOGY DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM

Mission and Goal Overview

The **Diagnostic Medical Sonography** Program at Pennsylvania Institute of Technology is committed to serving the local community by providing the training and education needed to fulfill the duties of a sonographer.

The program goal is to prepare competent entry level general sonographers in cognitive (knowledge), psychomotor (skills), and affective (behavior) in the abdomen-extended and OB/GYN domains.

Program Overview

The Pennsylvania Institute of Technology Diagnostic Medical Sonography Program will develop and produce the region's most professional and skillful entry-level Diagnostic Medical Sonographers who will provide exceptional patient care.

The teaching-learning process is a shared responsibility between the faculty and the students. The faculty facilitates the process by defined content, establishing critical criteria, role modeling, providing opportunities for learning activities and evaluating performance. The process is further facilitated with a movement from general to specific and simple to complex. The teaching learning process utilizes critical thinking, research findings, effective interpersonal communication, and a variety of instructional methodologies relevant to a changing society. Learning is a life-long process, which involves the acquisition and synthesis of knowledge, skills and

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understanding. The learner must be an active participant to attain success.
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A balanced curriculum of general didactic and practicum courses offers the student an opportunity for cultural development, as well as occupational competence. Clinical sites include major hospitals, affiliates and clinics. Clinical sites will be assigned by the department chair and faculty.

The program consists of a twenty-four-month associate in science degree. Students will be eligible to sit for their SPI (physics) examination offered through the ARDMS (American Registry of Diagnostic Medical Sonography) at the end of term 2. Students may be eligible to apply for examinations in abdomen and OB/GYN as offered by the American Registry of Diagnostic Medical Sonographers based on their prerequisite category. Students may also apply for the ARRT Sonography Registry.

College Mission

Pennsylvania Institute of Technology's mission is to empower students to achieve success by offering a personalized approach to learning that promotes career advancement, transfer opportunities, and individual growth. By fostering an inclusive environment, P.I.T. encourages, supports, and celebrates diversity.

Program Outcomes

The philosophy of this Program is to educate and develop skilled sonographers in the field of Diagnostic Medical Sonography and to assist them in understanding the importance of their role on the allied health care team as they contribute to total patient care.

The following specific outcomes have been adopted by Pennsylvania Institute of Technology Diagnostic Medical Sonography Program for its twenty-four-month program leading to an associate in science degree:

1. Demonstration of practical application in the professional and technical aspects of patient care related to medical sonography. Skills in demonstrating respect for interpersonal relationships, including moral and ethical responsibilities to increase effective communication and empathy for the diverse patient population with an awareness of cultural diversity within the community.

2. Appreciation of the career in medical sonography through knowledge of medical history, as well as the evolution of sonographic technology and its professional organizations.

3. Recognizing the common factors in the production of a sonographic image regardless of the imaging system used.

4. Ability to maintain and/or troubleshoot malfunctions in processing systems, evaluate sonograms for the presence of artifacts and correct or compensate for the cause.

5. Proficiency in applying the principles of structure and function within the human body. Comprehensive study of physiology of the various systems. Ability to correlate the anatomy. from a sectional standpoint.

6. Ability to comprehend medical terminology.

7. An understanding of disease entities and their influence on sonographic techniques, enabling the student to produce optimum diagnostic sonograms and ensure effective care for the patient. 8. Familiarization with routine sonographic procedures and supplementary techniques such as radiology, computerized axial tomography, angiography, nuclear medicine, radiation therapy, and magnetic resonance imaging.

9. Assure that both clinical and didactic education relate to practical needs, prepare competent sonographers, and foster mutual appreciation and collaboration among the health. professions.

10. Competence in cardiopulmonary resuscitation.

Philosophy

The philosophy of the Pennsylvania Institute of Technology (PIT) Diagnostic Medical Sonography Program reflects the **Mission** and **Philosophy** of the College by:

- Maintaining a high standard of excellence in education
- Creating an environment in which development of human potential is the highest priority
- Offering open access and equal opportunity for all qualified students
- Supporting upward mobility for all students
- Recognizing that prior educational experiences and successful work experiences can form a valid basis for articulation
- Meeting the needs of business and industry for competency in a global marketplace
- Providing service to the community and opportunity for lifelong learning

The faculty of the Sonography program is responsible for supporting the mission and philosophy of the college and DMS program. Some policies for sonography students may differ in specific instances from those of the College.

Mission Statement

The Diagnostic Medical Sonography Program at PIT is committed to serving the local community and students by providing the training, job skills, and proper education needed to fulfill the duties of a diagnostic medical sonographer. The program is also committed to graduate students capable of attaining the status of Registered Diagnostic Medical Sonographer. The program provides access and equal opportunity to all qualified individuals who apply.

Program of Study

Classroom and Laboratory

The courses are arranged sequentially over the span of eight (8) terms. The length of the program is designed so that the students can achieve the program goals and outcomes. The curriculum is comprised of 85.5 credits. In addition, a variety of teaching strategies & learning experiences may be utilized, including lecture, slide show presentations, group work, role play, written assignments, self-directed learning, case studies, computer-assisted instruction, quizzes, exams, clinical laboratory simulations, online courses, hybrid courses and clinical experiences in a variety of settings.

Clinical Experience

Clinical Education is an integral part of the academic preparation of the Diagnostic Medical Sonography Program (DMS). It requires the dedication and cooperation of many parties including the academic faculty, the clinical instructors, the clinical coordinator, and other clinicians who interact with the student in their quest to learn how to do this profession on a day-to-day basis. Each student will have the opportunity to work with clinical instructors in a variety of clinical settings after passing skill assessment tests to prove competency in lab.

This program specific Student Handbook and the Trajecsys clinical reporting system have been developed to help serve as a resource for information regarding both the classroom and the clinical education components of the Diagnostic Medical Sonography Program at PIT. Clinical competency forms and term evaluations are found in Trajecsys.

At the end of the program students can download Trajecsys records to highlight skill summaries and attach to their job applications and resumes.

This is an addendum to the college handbook.

Essential Skills for a Diagnostic Medical Sonography Student

The successful completion of the Diagnostic Medical Sonography Program at the Pennsylvania Institute of Technology requires students to participate in, and satisfy, the didactic, laboratory, and clinical training components of the program.

Students are required to perform the essential skills identified in the Trajecsys Clinical Record keeping system, the evaluation tool for Clinical Education, as well as demonstrate command of the following skill sets:

The student should be able to meet all the following expectations:

- 1. Attend class, lab or clinical, up to 40 hours a week depending on the stage of the program curriculum.
- 2. Complete all assignments on time.
- 3. Participate in classroom discussions.
- 4. Use sound judgment and safety precautions and follow guidelines for safety/infection control to avoid contracting or transmitting disease.
- 5. Meet class standards for successful course completion.
- 6. Use critical thinking when making decisions.
- 7. Follow standards stated in the DMS Program Handbook and Trajecsys Clinical Record keeping system.
- 8. Address problems or questions to the appropriate person at the appropriate time.
- 9. Maintain classroom, work area, equipment, supplies, personal appearance, and hygiene conductive to a professional setting as appropriate.
- 10. Behave in a competent, professional manner.

The DMS program at Pennsylvania Institute of Technology has adopted the following as Essential Physical Competencies and Technical Performance Standards for Sonography students. Sonography students must be able to apply the knowledge and skills necessary to function in a variety of clinical situations while providing sonography services. DMS students must also demonstrate clinical judgment and immediately respond to the physiological and psychological needs of the patient.

The following standards reflect reasonable expectations of DMS students for functions in the clinical setting. Each student must possess the following abilities and be able to perform the following skills. Qualified people with a disability who can meet these technical standards/essential functions with reasonable accommodations will not be denied admission to the program. A college counselor must be contacted to best determine reasonable accommodations needed to be successful in the PIT DMS program. These needs will be determined on an individual basis. Clinical affiliates have the option of overriding decisions based on their ability to provide certain accommodations.

Physical Requirements:

- Be in good physical health with the stamina that is essential to carry out all required procedures. Students must be physically capable of successfully performing activities in both the classroom, lab, and clinical site.
- Must be able to move with full manual dexterity of both upper and lower extremities, have unrestricted movement of hands, neck, shoulder, back and hips to assess, observe and perform emergency patient care, assist with all aspects of patient care, and be able to touch the floor for removal of environmental hazards.
- Extensive walking and standing daily.
- Ability to reach, and/or lift, carry and move heavy equipment.
- Ability to keep arm and hand steady while manipulating hand-held transducer.
- Demonstrate fine motor abilities sufficient to provide safe and effective patient care

- Visual acuity allows the sonographer to detect physical changes, hearing that allows responding to physical and verbal clues, and a sense of touch that allows for assessment and palpation.
- Ability to observe, assess, and evaluate patients effectively in low-light rooms, while speaking and hearing clearly with a mask on.

Cognitive Requirements:

- Utilize appropriate verbal, non-verbal, and written communication with patients, families, and all members of the health care team in a timely manner.
- Must be able to complete assigned tasks in a reasonable and acceptable timeframe.
- Employ technology in the workplace, including database user interfaces, email, medical software applications, and office software.
- Understand and interpret the verbal, non-verbal, and written communications of others and respond appropriately and professionally.
- Read, speak, and write in English.
- Comprehend and integrate information from coursework into clinical experiences.
- Demonstrate effective emotional coping and stress management skills.

Affective Requirements:

- Practice in a safe, ethical, and legal manner
- Demonstrate the ability to interact respectfully with individuals, families, groups, and communities from a variety of emotional, religious, socio-cultural, ethnic, and intellectual backgrounds.
- Work effectively in a group.
- Exhibiting sensitivity to patient needs and concerns must be demonstrated in the classroom, laboratory, and clinical area.

Sensory Requirements:

- Possess the visual ability to observe and respond to a patient close at hand.
- Possess the auditory ability to hear and respond to soft voices, equipment timers, and alarms, as well as blood pressure cuffs and breath sounds.
- Use auditory, tactile, and visual senses to assess the physiological status of a patient.

Critical Thinking Requirements:

- Possess the ability to prioritize multiple tasks and make sound decisions.
- Demonstrate the ability to use judgment and critical thinking to assimilate, integrate, apply, synthesize, and evaluate information to solve problems.

Please sign the "Essential Skills for a Diagnostic Medical Sonography Student" Appendix page 45.

Accommodations

Facilities and Services for Differently Abled Students

The Pennsylvania Institute of Technology is committed to providing equal opportunity for students with disabilities and does not discriminate based on disability in admission, access to or treatment in its programs and activities. Qualified students with a diagnosed disability are eligible to participate in our programs or services. To this end, the Pennsylvania Institute of Technology shall provide reasonable accommodation unless it constitutes an undue burden or requires a fundamental alteration of the College's program.

Reasonable accommodation includes but may not be limited to extended time testing, testing in a private environment and access to recorded course instruction.

Students with disabilities who have questions regarding their rights are encouraged to contact the Director of Student Affairs. Students with disabilities that need accommodations are encouraged to disclose their diagnosed disability as early as possible during the admissions process to allow time to complete the assessment and approval of accommodations prior to the start of the term.

Scope Of Practice

Applicants shall agree to perform the duties of a diagnostic medical sonographer only as directed by a duly qualified physician or sonographer and under no circumstances to give out oral or written diagnoses, or work independently, whether in a private office or institutional department. "Duly qualified physician or sonographer" refers to a physician or sonographer who has demonstrated education and training in the use and effect of ultrasound.

The Clinical Affiliate facilities reserve the right to have students removed from their facilities if those students are undesirable or unacceptable according to those facilities' protocols and professional standards. (See Dismissal Policy)

Non-Discrimination Policy, Sexual Misconduct Policy

It is the policy of Pennsylvania Institute of Technology not to discriminate based on sex, disability, race, age, color, religion, national origin, veteran status, or sexual orientation or any other characteristic protected by applicable law in its educational programs, admissions policies, employment practices, financial aid, or other school-administered programs. This policy is consistent with various state and federal laws including Titles VI and VII of the Civil Rights Act of 1964, Title IX of Education

Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1967, and the Americans with Disabilities Act of 1990.

For any claims of sex discrimination, sexual harassment or sexual assault, or any other claims under this policy, or to request information about services and resources (including reasonable accommodations) for disabled students, please contact:

Kamira A. Evans, MPA

<u>Director, Student Affairs</u> Title IX Coordinator

Department of Student Affairs, Pennsylvania Institute of Technology

800 Manchester Avenue, Media, PA 19063. Voice: 610-892-1504; email – kevans@pit.edu.

Program Degree Plan/Course Sequence

Associate in science (A.S.) DEGREE PROGRAM

		TERM 1 - HEALTH SCIENCE	Lecture	Lab	Clinical	Credits
BIO	112	Introduction to Anatomy & Physiology	3	1	0	4
ENG	108	Composition I	3	0	0	3
PSY	105	Introduction to Psychology	3	0	0	3
MTH	145	College Algebra and Trigonometry	3	0	0	3
		TERM TOTAL	12	1	0	13
		TERM 2 – HEALTH SCIENCE				
BIO	135	Anatomy & Physiology I	3	1	0	4
ENG	215	Analytical Writing	3	0	0	3
MOT	115	Healthcare in a Transcultural Environment	3	0	0	3
PSY	109	Human Growth & Development	3	0	0	3
		TERM TOTAL		1	0	13
		TERM 3 – HEALTH SCIENCE				
PHS	260	Physics for Sonography	3	0	0	3
BIO	136	Anatomy & Physiology II	3	1	0	4
COM	108	Social Interactions and Communication	3	0	0	3
		TERM TOTAL	9	1	0	10
		TERM 1 - DIAGNOSTIC MEDICAL SONOGRAPHY	,			
			Lecture	Lab	Clinical	Credits
DMS	101	Introduction to Sonography	2	•5	0	2.5
DMS	103	Basic Ultrasound Physics	3	0	0	3
DMS	104	Abdominopelvic Sonography I	3	1.5	0	4.5
DMS	110	Sonography Clinical I	0	0	60	1
		TERM TOTAL	. 8	2	1	11
		TERM 2 – DIAGNOSTIC MEDICAL SONOGRAPHY				
DMS	203	Advanced Physics	3	0	0	3
DMS	224	Introduction of Vascular Sonography	2	1	0	3
DMS	206	High Resolution Sonography	2	1	0	3
DMS	210	Sonography Clinical 2	0	0	75	1.25
		TERM TOTAL	. 7	2	1.25	10.25
		TERM 3 – DIAGNOSTIC MEDICAL SONOGRAPHY				
DMS	204	Sonography of Obstetrics/Gynecology	3	1	0	4
DMS	225	Abdominopelvic Pathophysiology	3	•5	0	3.5
DMS	251	Sonography Clinical 3	0	0	150	2.5
		TERM TOTAL	. 6	1.5	2.5	10
		TERM 4 – DIAGNOSTIC MEDICAL SONOGRAPHY				
DMS	-	Sonography Clinical 4	0	0	345	5.75
DMS	226	Sonography of High-Risk Obstetrics	3	۰5	0	3.5
		TERM TOTAL	3	۰5	5.75	9.25
		TERM 5 - DIAGNOSTIC MEDICAL SONOGRAPHY				
DMS	289	Sonography Clinical 5	0	0	360	6
DMS	290	Advanced Ultrasound and Review	3	0	0	3
		TERM TOTAL		0	6	9
		PROGRAM TOTAL	. 60	9	990(16.5 cr)	85.5

Course Descriptions

BIO 135 Anatomy & Physiology I

Presentation of basic concepts of human anatomy and physiology, and an introduction to proper anatomical and directional terminology, positioning of body parts, cell structure, tissue, and body systems. Content includes structure and function of skeletal, muscular, integumentary, and nervous systems. Laboratory component consists of instruction and activities that include the study of human anatomy and physiology via software and quantitative study. **Contact Hours:** Lecture-3, Lab-1, Credits-4

Prerequisite(s): High school biology

ENG 108 English Composition

In this course, students learn to write clear, organized academic essays. Students apply rhetorical modes, such as comparison/contrast, cause and effect, process, and descriptive narration to essay writing assignments. Grammar exercises are incorporated to give students an intensive review of the rules of English grammar. Assessments are based on writing assignments, homework, and grammar exercises. A short expository research paper is required as well, with a concentration on integrating academic sources into the paper.

Contact Hours: Lecture–3, Lab–o, Credits–3 **Prerequisite(s):** None

ENG 215 Analytical Writing

In this course, students will write in-depth analytical essays as well as reader response assignments. Analytical essays will include Classification, Definition, and Argument. Students will also demonstrate a proficiency in analyzing visual rhetoric. Students will complete an Analytical Argument Research Paper with academic sources to demonstrate proficiency in academic exploration.

Contact Hours: Lecture–3, Lab–o, Credits–3 **Prerequisite(s):** ENG 108 Composition.

MTH 145 College Algebra and Trigonometry

This is a first-term course that covers basic topics in algebra and trigonometry. Upon completion of this course, the students simplify algebraic and numerical expressions utilizing the fundamental operations. Students have a basic understanding of the rectangular coordinate system, can plot points, use a calculator to graph functions, and evaluate functions at a given point. Students solve systems of two and three linear equations; work with trigonometric, logarithmic, and exponential functions; and perform the fundamental operations on fractional algebraic expressions. Finally, students can solve problems in technology involving ratio, proportion, and variation.

Contact Hours: Lecture-3, Lab-o, Credits-3

Prerequisite(s): Grade of "C" or better in MTH 111 Algebra Skills for College Success or placement testing

MOT 115 Health Care in a Transcultural Environment

Today's health care provider will be delivering health care in a transcultural environment. This environment may well present consumer-provider challenges that create barriers to quality care for consumers and to a positive sense of competence and satisfaction for the provider. This course provides students with the opportunity to gain an appreciation for delivering health care within the environment of continuously changing vulnerable, racial, ethnic, and cultural demographics. Students will learn communication concepts related to the principles and techniques designed to provide the student with an awareness and knowledge of appropriate means of interactivity with diverse health care consumers. The student will learn to apply the concepts when gathering data for assessment, developing plans of care, and delivering quality health care.

Contact Hours: Lecture-3, Lab-o, Credits-3 Prerequisite(s): None

PSY 105 Introduction to Psychology

This course provides a general overview of the field of psychology. Students focus on human behavior and human brain functioning. Through the examination of significant psychological research trends and important figures in the field, students trace the evolution of this social science. Topics covered in this course include memory, learning, creativity, emotions, abnormal behavior, mood and psychological disorders, group dynamics, and motivation. At the conclusion of this course, students can apply the concepts they have learned to their own behavior and to those around them.

Contact Hours: Lecture-3, Lab-o, Credits-3 Prerequisite(s): None

PSY 109 Human Growth and Development

Psychology and sociology combine to understand and predict the behavior of people in their social context. Developmental psychology is the study of the changes in people and their relationships across the lifespan. This course helps students understand those changes in themselves and in the people in their lives.

Contact Hours: Lecture-3, Lab-o, Credits-3 Prerequisite(s): None

BIO 112 INTRODUCTION TO ANATOMY AND PHYSIOLOGY

This course presents basic Medical Terminology related to human anatomy and physiology. This includes an introduction to proper terminology associated with anatomical and directional landmarks, positioning of body parts, cell structure, tissues, and body systems. Content includes proper pronunciation and application of the terms dealing with the structure and function of skeletal, muscular, integumentary, and nervous systems. The in-class and lab components consist of instruction and activities that include the study of human anatomy and physiology via software and quantitative study. This course will provide students with an appreciation of the design, balance, and capability of the human body and its related terminology.

Credit Hours: Lecture–3, Lab–1, Credits–4 Prerequisite(s): None

BIO 136 ANATOMY AND PHYSIOLOGY II

This course is a continuation of BIO 135, Anatomy and Physiology I, and presents basic concepts of human anatomy and physiology of the overall structure and function of the human body. Content includes basic anatomy and physiology of the endocrine, cardiovascular, respiratory, lymph, immune, urinary, and reproductive systems. Laboratory component consists of instruction and activities that include the study of human anatomy and physiology via software and quantitative study.

Online demonstrations and student-learning exercises are an integral component of this course. Students are expected to have access to a smartphone, tablet, or computer to access this material. For students who do not have access to one of these devices, there are computers available for use in the Innovation Center and the Library.

Credit Hours: Lecture-3, Lab-1, Credits-4 Prerequisite(s): BIO 135 Anatomy & Physiology I

PHS 260 PHYSICS FOR SONOGRAPHY

The study of physics and ultrasound technology establishes a key foundation for anyone using diagnostic or therapeutic ultrasound in clinical practice. This course will concentrate on the principles associated with sonography with an emphasis on sound propagation. The interaction of ultrasound with tissue is the essence of ultrasound image formation and only by understanding that interaction can images be fully interpreted and understood. It is recommended that this class be the last class taken prior to DMS application submission, as content will continue into DMS 103.

Credit Hours: Lecture–3, Lab–0, Credits–3 Prerequisite(s): MTH 145 College Algebra and Trigonometry

108 COMMUNICATIONS AND SOCIAL INTERACTION

Through the extensive use of oral presentations, the class will examine the process of how messages are created and interpreted, with a specific focus on how culture, age, gender, and ethics influence our understanding of information. We will compare verbal and non-verbal communication as well as how to manage the information being delivered. Students will also complete a resume, reference list, cover letter and thank you letter before practicing their interview skills. Ultimately, the student will understand how to engage with others, present messages in a concise way, and understand how to effectively present and market themselves in the professional arena.

Credit Hours: Lecture-3, Lab-o, Credits-3 Prerequisite(s): None

DMS 101 INTRODUCTION TO SONOGRAPHY

Introduces sonography and the role of the sonographer. Students will have the opportunity to learn about scan planes, image orientation, ultrasound terminology, cross-sectional anatomy, patient care, ethics and medical-legal concerns, ergonomics and musculoskeletal issues, professionalism, historical developments in medical ultrasound, and professional organizations.

Contact Hours: Lecture-2, Lab-0.5, Credits-2.5

Prerequisite(s): Health Science Prerequisites and acceptance to the DMS program

DMS 103 BASIC ULTRASOUND PHYSICS

Explores the fundamentals of acoustic physics. Students will have the opportunity to learn about basic instrumentation, parameters, interaction of sound and media, basic transducers, and detail resolution.

Contact Hours: Lecture-3, Lab-0, Credits-3

Prerequisite(s): PHS 260 Physics for Sonography

DMS 104 ABDOMINOPELVIC SONOGRAPHY

Examines basic embryology, gross and microscopic anatomy, physiology, lab values, and sonographic appearance of the abdominal and pelvic body cavities. Students will have the opportunity to apply concepts to imaging techniques, transducer selection, and scanning protocols.

Contact Hours: Lecture-3, Lab-1.5, Credits-4.5

Prerequisite(s): Health Science Prerequisites and acceptance to the DMS program

DMS 110 SONOGRAPHY CLINICAL 1

The students will be provided with clinical experience in a hospital setting. The students will become acclimated to patient flow in a functioning department. The students will apply knowledge learned in didactic courses and integrate it within the clinical setting. The clinical professional provides direct supervision. Contact Hours: Lecture–0, Lab–0, Clinical Hours–60 Credits–1

Prerequisite(s): Health Science Prerequisites and acceptance to the DMS program.

DMS 203 ADVANCED PHYSICS

Explores imaging modes, transducer arrays, real-time imaging, pulsed echo instrumentation, image optimization techniques, contrast agents and harmonics, hemodynamics and Doppler, artifacts, quality assurance, and bioeffects and safety. Students passing this course with 75% or better are required to challenge the SP I exam to advance to the next term.

Contact Hours: Lecture-3, Lab-0 Credits-3

Prerequisite(s): Basic Physics DMS 103

DMS 204 SONOGRAPHY OF OBSTETRICS AND GYNECOLOGY

Explores the non-gravid and gravid gynecological and female pelvic systems. Student will have the opportunity to learn the scanning protocols of the first, second, and third trimesters obstetrical exams and the sonographic appearance of normal and abnormal female pelvic organs. Contact Hours: Lecture–3, Lab–1 Credits 4 Prerequisite(s): Introduction to Sonography DMS 101

DMS 206 HIGH RESOLUTION SONOGRAPHY

Examines the basic embryology, gross, microscopic, and cross-section anatomy, physiology, laboratory values, pathology, patient history, and sonographic appearance of normal and abnormal superficial structures, abdominal wall, gastrointestinal tract, and neonatal/pediatric abdomen, hips, spine, and head. Students will have the opportunity to apply concepts to scanning protocols, imaging techniques, and transducer selection.

Contact Hours: Lecture-2, Lab-1 Credits 3

Prerequisite(s): Introduction to Sonography DMS 101

DMS 210 SONOGRAPHY CLINICAL 2

The students will be provided with clinical experience in a hospital setting. The students will become acclimated to patient flow in a functioning department. The students will apply knowledge learned in didactic courses and integrate it within the clinical setting. The clinical professional provides direct supervision. Contact Hours: Lecture–0, Lab–0, Clinical Hours–75 Credits–1.25

Prerequisite(s): Sonography Clinical I (DMS 110)

DMS 226 SONOGRAPHY OF HIGH-RISK OBSTETRICS

Explores pathophysiology associated with high-risk pregnancies. Students will have the opportunity to learn about the sonographic evaluation of common maternal complications in pregnancy, fetal anomalies, and the monitoring of high-risk patients. Students will have the opportunity to apply knowledge and practice skills on an OB phantom.

Contact Hours: Lecture 3, Lab .5 Credits 3.5

Prerequisite(s): Sonography of Obstetrics and Gynecology DMS 204

DMS 225 ABDOMINOPELVIC PATHOPHYSIOLOGY

Expands on DMS 104 and explores abnormal physiological processes associated with disease or injury in the abdomen and pelvis. Students will have the opportunity to learn about the body's response to pathology, the related changes in sonographic findings, and adjustments to protocol and instrumentation.

Contact Hours: Lecture 3, Lab 0.5 Credits 3.5

Prerequisite(s): Abdominopelvic Sonography DMS 104

DMS 224 INTRODUCTION TO VASCULAR SONOGRAPHY

Introduces basic anatomy and physiology of the vascular system, fundamental hemodynamics and Doppler concepts, common sonographic examinations, and normal and abnormal sonographic findings. Students will have the opportunity to apply concepts to scan protocols, Doppler instrumentation and techniques, and transducer selection for cerebrovascular, peripheral arterial and venous, and abdominal circulations.

Contact Hours: Lecture-2, Lab-1 Credits 3

Prerequisite(s): Introduction to Sonography DMS 101

DMS 251 SONOGRAPHY CLINICAL 3

The students will be provided with clinical experience in a hospital setting. The students will become acclimated to patient flow in a functioning department. The students will apply knowledge learned in didactic courses and integrate it within the clinical setting. The clinical professional provides direct supervision. Contact Hours: Lecture–0, Lab–0, Clinical Hours—150 Credits–2.5 Prerequisite(s): Sonography Clinical 2 (DMS 210)

DMS 285 SONOGRAPHY CLINICAL 4

This course integrates didactic knowledge and practical skills learned in the lab in the clinical setting. The student will comply with college and clinical affiliate department policies and procedures. The student will demonstrate professional behaviors relating to patients, family, and other healthcare members. The student will practice using ultrasound instrumentation and other equipment necessary for sonographic procedures. Proper pre-examination preparation and acquisition of pertinent patient medical information are also expected. The student will institute and practice diagnostic medical sonographic procedures under the supervision of a registered staff diagnostic medical sonographer. In this clinical term, the student will show improved scanning skills and the ability to perform more independently as a student sonographer. Students will be expected to triage and present exams as well.

Contact Hours: Lecture–0, Lab–0, Clinical Hours–345 Credits–5.75 Prerequisite(s): Sonography Clinical 3 (DMS 251)

DMS 289 SONOGRAPHY CLINICAL 5

This course integrates didactic knowledge and practical skills learned in the lab in the clinical setting. The student will comply with college and clinical affiliate department policies and procedures. The student will demonstrate professional behaviors relating to patients, family, and other healthcare members. The student will practice using ultrasound instrumentation and other equipment necessary for sonographic procedures. Proper pre-examination preparation and acquisition of pertinent patient medical information are also expected. The student will institute and practice diagnostic medical sonographic procedures under the supervision of a registered staff diagnostic medical sonographer. In this clinical term, the student will demonstrate improved scanning skills with the ability to perform more independently as a student sonographer prepared to be employed as a staff sonographer.

Contact Hours: Lecture–0, Lab–0, Clinical Hours–360 Credits–6 Prerequisite(s): Sonography Clinical 4 (DMS 285)

DMS 290 ADVANCED ULTRASOUND AND REVIEW

Explores the transition from student to entry-level sonographer and the role of the sonographer in various aspects of the practice. Students will be provided with the opportunity to learn about earning and maintaining certification, credentialing exam preparation, professional organizations, volunteer opportunities, continuing education, career development, and professionalism. Students will be provided with the opportunity to apply knowledge to practice problems in preparation for credentialing exams.

Contact Hours: Lecture 3, Lab 0 Credits 3

Corequisite(s): Sonography Clinical 5 (DMS 289)

Students enrolled at PIT are issued a subscription to Office 365 which gives access to digital power points

Grading Policy

All courses will be graded as indicated in the table below:

Diagnostic Medical Sonography Program – Grading Scale

Letter grade	Percentage	Letter grade	Percentage	Letter grade	Percentage
А	93-100	В	83-86	C	70-74
A-	90-92	В-	80-82	I	69
B+	87-89	C+	75-79	W	0

The **final grade of "FA"** is assigned to students who failed to participate in course activities through the end of the term. This grade is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible.

"I" (Incomplete) is a temporary grade. Students are required to petition for this grade by completing the Verification of Incomplete Grade Form. This form must be approved in advance by the instructor and the Dean or an Assistant Dean of Academic Affairs. It is the sole responsibility of the student to complete the required work no later than 60 calendar days from the last class session or by an earlier date assigned by the instructor.

Notes:

- Students enrolled in the DMS Program at PIT must achieve a minimum of 75% in all DMS program courses to progress in the program. Averages below 75% are considered non-passing scores and will be dismissed from the Diagnostic Medical Sonography Program due to unsuccessful completion of academic outcomes. Grades will **not** be rounded up.
- For all courses in the DMS Program, an average of 75% for all examinations and quizzes combined, as well as competence in all lab skills examinations (minimum score of 75%) will be required to achieve a passing grade in that course.
- Students are responsible for their academic progress and for seeking assistance when experiencing academic difficulty. Remediation is required for any midterm or final score below 75%. Students are required to meet with instructors.
- While in the DMS Program an incomplete ("I") is a temporary grade and granted solely by the combined decision of the Diagnostic Medical Sonography Program Director and the course instructor. Students are required to petition for this grade by completing the Verification of Incomplete Grade Form. This form must be approved prior to the last day of classes by the instructor and the Dean or Assistant Dean of Academic Affairs. It is the sole responsibility of the student to complete the required work no later than 60 days from the last class session or at an earlier date assigned by the instructor.
- <u>An incomplete ("I") grade may prevent a student from receiving high honors or Dean's List appointments.</u>
- An incomplete grade in a DMS course may result in the delay, or cancellation of a student's Clinical assignment.
- The grading policy for each clinical competency is detailed in Trajecsys.

Grade Appeal Policy

Students who have questions about incorrect or unjustified grades must first contact their faculty member. If a student is not satisfied with the resolution of the issue after such discussion, they may appeal to the Program Director. If students desire, the decision by the faculty member and the Program Director may be appealed to the Dean. The issue may be referred to the academic standards committee.

Attendance Policy: Lecture, Lab, and Clinical Sessions

Diagnostic Medical Sonography is an intensive field. Attendance in lectures, lab and clinical is extremely important. Students are expected to attend their educational experiences as scheduled. If a student is unable to attend a lecture or lab session, she/he is responsible for contacting the appropriate instructor prior to the scheduled class time. While there may be explanations for absences there are very few exceptions.

Regular and punctual attendance of class, lab and clinical is mandatory. Enrolling in a professional program should reflect a serious commitment to professional behaviors. See the Self Grading Attendance log in the appendix. A new form will be issued each term to determine the attendance grade.

Exceptions may be made in emergency situations only. The student should schedule an appointment with the department chair and the instructor. The student is responsible for making up missed work, and obtaining handouts, class notes and other information.

If a student is absent from lab, they must make arrangements to return the Butterfly probe and iPad to campus during the lab session. Absence from hands on lab instruction can adversely affect the student and fellow classmates. To avoid a delay or disruption in future instruction, students that miss a lab are required to meet with the clinical coordinator prior to the next lab to catch up on missed instruction.

To avoid an incomplete Grade "(I)", missed clinical time should be made up prior to the end of the term. If a student is unable to make up their clinical hours prior to the final day of the term, hours must be made up the first Monday and/or Tuesday over the break. Failure to make up the time in 60 days will result in program dismissal. Students have the opportunity to gain back points by making up 2 for 1 days of missed time (up to two absences).

Late or Missed Exam/Lab Competency

A student who arrives late for an exam may or may not be admitted, but if admitted, will have only the remaining allotted time to complete the exam.

- A student who is absent for an exam is expected to make up the exam on the first day he/she returns to class.
 - It is solely the student's responsibility to contact the appropriate faculty member to make arrangements.
 - If the appropriate faculty member is not available, contact the Director or Clinical Coordinator.
 - Date and time of the make-up exam will be decided by the faculty. Make-up exams may be any type and the type selected may be different from the original exam.
 - Failure to contact the appropriate faculty to make arrangements to take the missed exam will result in a grade of zero for the exam.
 - Examples of unexcused circumstances that will **not** be considered: attending events such as a wedding, vacation, child's school event, missing a bus, moving, routine visit to health care provider.

Examples of excused extenuating circumstances that would be considered **with supporting documentation**: illness (with dated and signed statement from health care provider on letterhead), death in the immediate family (with death notice or funeral home document), court appearance (with copy of court summons), unforeseen emergency such as vehicle collision, house fire (with signed statement from appropriate source). Attendance is documented and recorded in Trajecsys.

Academic Integrity / Scholastic

Academic Dishonesty and Misconduct

It is the policy at P.I.T. to uphold academic honesty. Academic dishonesty is defined as the attempt to mislead, deceive, or influence the grading system or process. Academic dishonesty includes, but is not limited to:

- Cheating, including:
 - The use of unauthorized materials or devices such as crib notes or cell phones during an examination,
 - o Providing and/or receiving unauthorized assistance during an examination,
 - Possessing a course examination prior to the examination,
 - Using a substitute to take an examination or course.
- Plagiarizing in any form.
- Fabrication of information or citations.
- Facilitating the acts of academic dishonesty by others.
- Submitting the work of another person.
- Submitting work previously used without informing the instructor.
- Tampering with the academic work of other students; or,
- Attempting to bribe institutional personnel to attain academic advantage.

All matters involving academic dishonesty are serious violations of the Student Code of Conduct. Faculty members should report all violations to the Dean of Academic Affairs and may recommend penalties for initial violations of a serious nature or for recurrent violations (including dismissal).

Plagiarism

Plagiarism is a form of academic dishonesty which is unacceptable in any academic institution. The P.I.T. academic community will make all reasonable efforts to discourage this form of dishonesty. Plagiarism is the unacknowledged use or incorporation of another person's words, ideas, materials, research, graphics, or computer programs may be considered plagiarism. Students should cite the source by using quotations and/or reference notes, including foot or endnotes. P.I.T. requires the use of either the MLA citation format or the APA citation format. The instructor will inform students which format should be used in a particular course.

Sources of plagiarism may include material obtained from a friend, from duplicated student writings used in other writing courses, or from commercial sources, all of which must be acknowledged by reference notes or quotations. Students can obtain assistance from the P.I.T. librarian regarding the research and citation process. Students who are unsure of their ability to produce a finished draft, which is virtually error-free or required strategies for proper writing, should arrange to meet with an English tutor.

<u>Initial Violation</u>: An automatic grade of "F" will be assigned for the test, project, essay, or other course requirements when plagiarism has been proven to occur. Subsequent violations will be dependent on the nature of the infraction. The faculty member may assign a grade of "F" in the appropriate course; refer the matter to the Assistant Dean of Academic Affairs. The Assistant Dean of Academic Affairs will refer the matter to the Academic Standards Committee for further action. The Academic Standards Committee (may be comprised of the Director of Student Services, Dean of Academic Affairs, Registrar, Program Director, Director of Financial Aid, and others as needed) will then recommend a course of action to the Dean of Academic Affairs.

Dress Code Lecture and Lab

PIT uniform must be worn at all times for classes, lab and clinical. Some lab classes will require the exposure of certain body parts; shorts coupled with a sports bra or tank top may be instructed by the faculty as needed.

• **NOTE:** The instructor has the authority to remove a student from the laboratory or the classroom if the student is non-compliant with the dress code or unprepared for lab. The student will be marked absent for the day.

Scanning Instruction and Lab Competency Policies

Many courses in the DMS program are laboratory courses and include both didactic and practical skills which may be tested separately. Practical skills are assessed through lab **competencies**. Students will then have an opportunity to work on any problem areas prior to being tested by the course instructor. Scanning instruction is done by the clinical coordinator during lab. Lab competencies evaluate the student's ability to integrate scanning skills and course material to perform a diagnostic study on a patient safely and effectively.

Scan Lab Policies

Student Scanning Policy

Scan Labs will include students scanning each other. All precautions are taken to ensure that the exposure times and intensities used during training sessions do not exceed those expected during a diagnostic examination. Prudent use of ultrasound and the "As Low as Reasonably Achievable (ALARA) "principle will be practiced.

Students are not required to be scanned. Students' grades and evaluations are not affected by participation or non-participation as being a "patient" during labs. If they choose to be scanned, they do so at their own risk. The "student patient" may discontinue an exam at any time. All DMS students will be required to sign a fair practice/consent form. The Program Director, Clinical Coordinator, Faculty, or any instructor or representative of the institution cannot be held liable for any condition and/or injury resulting from students scanning each other. Any scheduled scanning done by students will be done under the supervision of a designated DMS instructor.

DMS students and credentialed sonographers cannot diagnose in either a clinical or an academic environment. Only a qualified physician can make a medical diagnosis even when an exam during a scan lab uncovers an incidental finding. All sonographic procedures performed in the lab are for educational training purposes only and sonographic images shall not be considered diagnostic, no physician will interpret them, and findings will not be part of a medical record.

HIPAA rules apply to any information obtained in lab scanning

Lab Environment

Scan lab serves as a safe place for students to practice scanning, professional behavior and clinical practices. Faculty expect students to participate in class activities including discussion and scan assignments. This is an environment of mutual respect. Students should accept criticism, advice, and direction from faculty without complaint or reluctance.

Students should stay in their roles, as sonographer or patient, while completing assignments at their scanning stations NO cell phones may be used while at scanning stations. Students acting as the patient should be actively involved and attentive to the exam. If positioning prevents you from seeing the screen flash cards for effective usage of time will be provided. Students sleeping or not complying with the phone policy will be asked to leave the lab for the day. They will be graded as absent.

Lab Competency Process

- 1. Lab competencies are timed assessments.
- 2. Lab competencies are graded. The student will receive that grade based on the given criteria for that skill in Trajecsys.

Examples of components of the competencies are:

- a. Preparation and clean up: washes hands before and after patient interaction, prepares treatment area (including linens, pillows, and towels), acquires all necessary medical information, selects appropriate transducer, selects correct scanning parameters, and cleans up all materials afterwards.
- b. Patient interaction: introduces themselves, identifies patient, obtains consent, provides instruction and demonstration (if required) of the procedure.
- c. Hands on skill performs required skill according to grading rubric, always maintains patient safety.
- 3. The student should refrain from asking questions during the lab competency.
- 4. The instructors will not give any cues or prompts.
- 5. If a student realizes an error was made, they can self-correct it if completed in a pre-determined period.
 - a. If an item is missed by the student, the instructor will ask that the item is completed.
- 6. The tester may ask the student questions during the testing time. These questions are not to be combative or meant to break the concentration of the student but to foster learning.
- 7. Students may attempt the lab comp two (2) times. The second attempt must be made within one week following the initial attempt.
- 8. Students who are not successful after 2 attempts must meet with the course instructor/ clinical coordinator for remediation.
- 9. A student may not re- attempt the lab comp until a remediation and successful skills assessment has occurred. The CI/CC will determine readiness to then perform the competency.
- 10. The student must successfully pass the **lab** competency before attempting to complete **clinical** competencies. The completion of these competencies will be documented in Trajecsys.
- 11. Sharing information with classmates who have not yet taken the comp is considered academic dishonesty and will be treated as such. Dismissal can and may be implemented.

Attendance Policy: Clinical

Clinical attendance is **MANDATORY**. A clinical day may be a 6-8.5 hr "shift" (including ½ hour lunch break) of any fashion within that day. (Example: day, midday, evening, or weekend).

When a student is absent from the assigned clinical site, the student must notify the Clinical Coordinator as well as the clinical site supervisor by a phone call AND an email sent to PIT and clinical site email. (1 email to both) These must be sent at LEAST 1 hour prior to their expected arrival time. Absences must be made up during the remainder of the term or on the first available day or days over the break between terms. This make up time will be at the discretion of the clinical site and the clinical coordinator. (Day, evening, weekend etc.) Failure to make up time prior to the end of the term will exclude students from academic honors (Dean's List etc.) Time verification forms for late or missing clock in's must be uploaded to Trajecsys within 24 hours.

Tardiness and early departure are unprofessional and unacceptable. Tardiness is defined as not being present and settled at the clinical site at the scheduled time, early departure is defined as leaving prior to the end of clinical shift. Students are required to clock in and out on Trajecsys at their assigned clinical site. **Students are not permitted to leave early.**

There may be times when schedules are light. Students are expected to take these opportunities to scan fellow students or sonographers, refill gel, stock rooms, assist departmental needs and triage previously performed studies.

For mock triage studies, students should compare their assessment of the case against the sonographers. Presenting mock triaged case to a radiologist is encouraged as well. Permission to access PACS may be required. As with each live patient encounter, all confidentiality and HIPPA policies must be followed.

"Banking" of time is not permitted. Banking is when a student stays late or comes in early at the clinical site with the intent to leave early/arrive late on another day. Schedule adjustments may be made on a per student basis such as exposure to certain types of cases, specific studies are scheduled at certain times, etc. The clinical site/ instructor and Clinical Coordinator must be informed of this prior to staying late or going in early via one email to both recipients. If a student is performing an exam for half an hour or more after their usual departure time, they are not expected to leave in the middle of the exam. That extra time can be compensated at the clinical site's discretion. The Clinical Coordinator must be notified by email before compensation is allowed.

P.I.T. academic calendar for specific terms can be accessed via the student portal.

Clinical/Professional Dress Code

To foster professionalism in the clinical setting and in the interest of safety, students are expected to adopt the following professional appearance.

Requirements:

- Neat, clean appropriate clothing. Student uniform which includes a scrub top and pants. Cherokee brand black scrubs. NO JOGGER SCRUB PANTS.
 School emblem patches will be distributed to students and must be sewed onto the left chest of the scrub top
- White or black shoes. **Solid** color hospital work shoes or sneakers are acceptable. Sneakers must be clean and not worn out.
- No hats
- Neatly trimmed and cleaned **natural** nails. Neutral polish. **No artificial nails of any type.** Acrylic, gel, dip, powder, tips, press-on's, etc. **This applies to clinical and lab.**
- No excessive jewelry (No large hanging earrings or hoops. Gauge holes must wear a flesh-colored solid plug)
- No facial jewelry may be worn.
- No excessive makeup
- Body Art/Tattoos should be covered if possible or per the clinical site policy.
- No chewing gum.
- No offensive body odor including strong scented perfumes, body sprays and aftershave.
- Hair neatly groomed and out of face.
- Clean shaven mustache and/or beard
- School and/or clinical site ID badge

Exceptions to the DMS clinical dress code/professional appearance may be made for religious, cultural, or medical reasons. During unexpected circumstances such as the COVID-19 pandemic, other requirements may be added such as N-95 mask, goggles or face shield.

Clinical Log

Students are expected to keep a daily log of all ultrasound cases they are involved in, whether that be observing, assisting, or performing. Students are required to log all organs indivually into Trajecsys on a daily basis eg. liver, pancreas, GB, renal not RUQ. Logs should be updated after clinical hours or if time permits during downtime. Failure to log studies on a daily basis will result in grade deductions. Patients should be identified by first initial, first three letters of last name and Medical Record Number and a brief preliminary description of case.

Confidentiality

During the DMS Program, students gain access to highly confidential information about patients. This includes written as well as verbal information pertaining to patients. Any discussion of patient information, except during an educational experience, is considered a breach of confidentiality.

Violation of patient confidentiality will result in dismissal from the program.

Clinical Evaluations

The student will be evaluated periodically by the clinical site on personal appearance, hygiene, professional standards, relationships with other students, hospital staff and patients. This evaluation is meant as constructive criticism and should be accepted as such.

Cell Phone and Electronic Use (Clinical)

The use of any electronic communication equipment (e.g., beepers, cellphones) is not permitted.

Students must turn off or silence all devices during lecture, lab and clinical hours.

They should not make, receive personal calls, or text messages. Use of cell phones in a patient care area will be documented in the student evaluation or clinical coordinator site visit evaluation. Cell phone use during lunch or break is acceptable, only in non-patient areas. Cell phones should be silenced and stored during lab and lecture.

Clinical Competency Requirements Procedure

The student should demonstrate in lab and/or in Clinical to the Clinical Coordinator and/or Clinical Instructor that the student is able to perform "X" study with minimal assistance. The student may attempt given the following conditions:

Student's activity log and clinical exam totals must show adequate documented experience.

1. The student must have passed the lab competency and an independant practice competency or they may not Final Comp that exam. Practice comps must be completed in Trajecsys.

2. The student must also be prepared to answer an accompanying oral competency exam if the evaluator chooses. If the student fails the oral competency, the scan competency will have to be reattempted.

3. The student must inform the Clinical Instructor prior to the beginning of the exam that the student wishes to attempt the scan competency test.

4. Patients are to be selected at random.

The Clinical Instructor will grade the student using the appropriate competency test in Trajecsys and will at no time give the student assistance during the test. The clinical instructor must be registered in the specialty area.

Examples:

- Only a sonographer who is RDMS (AB) can sign off on an abdominal study.
- Only a sonographer who is RDMS (OB/GYN) can sign off on a GYN or OB proficiency.

A grade of 75 percent or greater must be obtained to pass. If a student fails the competency, the student will be required to demonstrate the study in scan lab.

Incomplete "(I)" clinical grades will be issued if competency requirements are not met at the end of each term. Students will have 60 calendar days to meet the requirements. Clinical requirements not met in Term 5 will delay graduation date and therefore board eligibility.

Required Term Competencies:

MINIMUM number of required competencies to proceed to the next term are as follows:

- **Term 1** (1) Trophon certification
- Term 2 (2) Gallbladder to include CBD & Biliary Tract and IR guided assistance
- Term 3 (4) Liver, Renal/Bladder, Pancreas
- **Term 4** (8) Abdomen Complete to include spleen, IVC, pleural space Thyroid, Scrotum, Aorta, GYN Pelvis Transabdominal (TA)
- **Term 5** (9)
 - GYN Pelvis Transvaginal (TV)
 - OB 1st Trimester: TA or TV
 - OB 2nd/3rd Trimester: Head/Face (HC, BPD, Profile, N/L/P, Choroid, Ventricles, Thalami, Cisterna Mag, Cerebellum)
 - OB-2nd/3rdTrimester: Heart/Thorax(4CH,RVOT,LVOT,3VH,3V.Tracheal,Lung, Diaphragm, M-Mode, Levocardia Sag.)
 - OB 2nd/3rd Trimester: Abd/Abd Wall (AC, 3VC, ACI, Diaphragm, Abdominal wall Sag)
 - OB 2nd/3rd Trimester: Spine (Cervical, Thoracic, Lumbar Spine Sagittal and Transverse)
 - OB 2nd/3rd Trimester: Extremities (Femur Length, Humeral Length, short bones, Bilateral Hands and Feet
 - OB 2nd/3rd Trimester: Maternal Survey (Placenta, Fluid, Cervix, Cord, Adnexa)
 - Biophysical Profile

*order subject to change depending upon availability of studies at a particular clinical affiliate.

Term	Abdomen	Lab	Clinical		Exit
		Competency	Competency	Continual	Competency
1	Trophon Certification				
2	GB, CBD & Guided Assistance				
3	Liver				
3	Pancreas				
3	Renal/Bladder				
4	Aorta				
4	Abdomen Complete (Spleen, Pleural Space, IVC)				
4	Scrotum & Testes				
4	Thyroid				
4	GYN Uterus & ovaries TA				
5	GYN Uterus & ovaries TV				
5	1 st Trim. TA or TV				
5	2 nd /3 rd Trim. Head/Face				
5	2 nd /3 rd Trim. Heart/Thorax				
5	2 nd /3 rd Trim.Abdomen/Abd. wall				
5	2 nd /3 rd Trim. Spine				
5	2 nd /3 rd Trim. Extremities				
5	2 nd /3 rd Maternal Survey				
5	Biophysical Profile				
	LAB PROFICIENCIES				
3	Abd. Vascular		N/A		
-	(Hepatic ,Renal, Mesenteries)				
4	Appendix (Gastrointestinal)		N/A		

Mandatory Clinical Competency Checklist

	OPTIONAL ELECTIVES				
	Carotid Arteries				
	Lower Extremity Venous				
	Breast				
*	SIM/Knowledge-Infant Hips	N/A	N/A	N/A	N/A

Clinical Injury/Incident Reports

A student who is injured in a clinical facility during clinical hours must:

- Report on the incident IMMEDIATELY. If necessary, the student will be seen in the hospital's Emergency Room at no expense to PIT. The incident must be reported to the Program Director, Clinical Coordinator and Department Supervisor.
- 2. Complete reporting policies and documents with clinical site
- 3. The clinically related incident will be documented and reported accordingly to the College within 48 hours.

College incident reports and records related to clinical incidents must be released to the hospital if required for use in legal or regulatory proceedings which may involve the College.

Students must submit medical clearance to the clinical site and College before returning to the clinical site.

Removal from Clinical Site

Clinical instructors are authorized to exclude a student from participation at a site when the student is unprepared, physically unfit for duty, or when the student does not meet health or professional standards.

Faculty will also exclude a student for failure to adhere to dress code, failure to maintain CPR certification, health documentation and/or health insurance, or for inappropriate behavior. In this situation, the student's absence is unexcused and depending on the nature of the offense may be grounds for dismissal. A student is not readmitted to the clinical site until there is evidence the student meets criteria for safe clinical participation.

Additionally, any clinical site has the right to exclude the student from the clinical setting based on the clinical site's policies.

If a student is removed from a site, counseling will occur. An intervention with that clinical site will be scheduled. If there is not a resolution for the return to that site, every effort will be made to reassign the student to another clinical site pending availability. Removal from 2 clinical sites may result in program probation or dismissal.

Changes in the clinical schedule may have to be made during the term due to unexpected circumstances, such as conflicts, clinical site requests, etc. All clinical scheduling is at the discretion of the Program Director and Clinical Coordinator. Students are expected to be flexible if these circumstances arise.

Leave Absence Policies

Long-Term Illness

Upon written request of a student with a medically documented long-term illness, and who is unable to complete the program coursework, there is an option for a medical leave of absence (LOA). The student must submit this written request to the Program Director, prior to the start of the next term. Upon acceptance, the

student will be granted guaranteed placement in a future cohort, provided they meet the readmission criteria. The written request to return must be received within two (2) years of the LOA. After two (2) years of absence, a student must reapply to the program. It is the discretion of the DMS program faculty to assess the student's readiness to return. All or any combination of the following may occur. CLEP exams, oral interview, scan skill assessment.

A student returning from LOA due to a medical condition must have a healthcare provider's clearance before re-entering the Program. The student will be expected to resume normal activities and clinical responsibilities without limitations. Individual assessment of the student's clinical skills will be performed upon return from the LOA. Students must be competent at the appropriate program level before returning to the clinical setting. Remediation, comprehensive exams and/or course audits may be required based on the assessment. Prior lab and clinical courses must be repeated.

Pregnancy

A student has the right to declare pregnancy and remain in the DMS program with no modifications. If a student continues to attend both clinical and didactic courses as scheduled during her pregnancy minimal disruption will occur. The DMS program chair and faculty will be supportive to pregnant students. Once a student informs DMS program officials of their pregnancy through written notifications, the student will choose from the following options:

- Remain in the program throughout the pregnancy with written approval from a board-certified practitioner for attendance in clinical and didactic. The student will participate in all clinical rotation areas as assigned without special provisions and must keep up with classwork and assignments. Any clinical time missed after delivery must be made up. The college will not assume any liability and student will sign a form of releasing the college and its affiliates.
- 2. Medical leave of absence in good standing. If the student decides to do so, the Program Director and Clinical Coordinator must be informed as soon as possible. Students may plan to re-enter at the beginning of the corresponding term in which they left. Students must be competent at the appropriate program level before returning to the classroom, lab and clinical setting. Remediation, scanning skill assessment, comprehensive exams and/or course audits may be required based on the assessment. Re-entry tasks and benchmarks of "C" or better must be completed prior to re-entry.
- 3. Voluntary withdrawal in good standing at any point during the pregnancy. If student wishes to selfwithdrawal due to pregnancy and who are interested in readmission, may submit a request to the DMS program chair to be eligible for non-competitive readmission as part of the next academic year cohort. Student will be required to complete tasks and/or assessments and to meet evaluations benchmark of "C" or better must be completed within a 3 months prior to program admission.

Military Deployment

If a student is called into active duty to the armed services of the United States of America, the student will be given an immediate leave of absence, with guaranteed placement in the next cohort, upon his or her return.

Students must be competent at the appropriate program level before returning to the classroom, lab, and clinical setting.

Remediation, scanning skill assessment, comprehensive exams and/or course audits may be required based on the assessment.

Bereavement Leave

Bereavement leave will be granted at the discretion of the program faculty and the assigned clinical site. A maximum of three (3) days excused absence will be granted in the event of a death of a member of the student's immediate family with proper documentation. The immediate family includes husband, wife, child, father, mother, brother, sister, mother-in-law, father-in-law, or grandparents.

Students should contact the instructor, clinical coordinator, or Program Director to request bereavement leave.

Jury Duty

A student who may potentially be absent from their clinical site due to jury duty will first attempt to be dismissed during the length of the program. If this is unsuccessful, the student will need to make up the time as assigned by the clinical instructor and the program faculty. Students must provide evidence of jury duty service.

Court Dates

If a student is called to testify in court, whether it is a personal case or as a witness, the time missed from clinical will be counted as time absent. The faculty may elect to assign make up time depending on the length of time absent.

Disciplinary Procedures

Upon determination of a student's inappropriate conduct, the faculty member who was involved will meet with the student to inform the student of the unacceptable behavior and discuss the matter. A verbal warning concerning the inappropriate behavior will be given to the student and a written record of the behavior will be placed in the student's electronic file through Drop Out Detective, which in turn will alert the College guidance counselor assigned to the student.

If the student's conduct and behavior does not improve, the instructor involved will meet with the student for a 2nd time, at which time a written warning is given with documentation of specific actions needed to improve performance. There will be a deadline given for definite measurable improvement to be demonstrated by the student.

If satisfactory improvement is not demonstrated before the deadline, the student may be dismissed from the DMS program.

Refer to PIT College Student Handbook for the "Disruptive and Abusive Student Behavior Policy" on page 32.

Dismissal

Program dismissal may result for any of the following reasons as stated previously in this handbook:

- Unexcused or excessive absenteeism and/or lateness
- Grades of < 75% on written and laboratory examinations
- Substandard, unethical, unprofessional, or inappropriate conduct
- Release of confidential information regarding patients, classmates or volunteers
- Cheating or plagiarism

Faculty members are authorized to deny a student the privilege of participation in clinical affiliations, skill competency tests, lab activities or classroom lectures when the student is unprepared or student performance falls below a competent level regarding patient safety (which makes him/her potentially dangerous to others) or presents a health hazard to clients or fellow classmates when the student does not meet agency or facility health standards.

In such situations, participation in the experience will be discontinued until there is evidence that the student's progress meets minimal criteria for safe clinical performance. This may require medical documentation from the student's health care provider, if indicated.

Bloodborne Pathogens

All students will receive instructional material on communicable diseases to include AIDS and Hepatitis B Viruses in the in the Introduction to Sonography DMS course. Students are required to complete all clearances and health and background checks through American Data Bank and as needed or required from the clinical affiliates.

Link to <u>PIT Webpage.</u>

Re-Entry Policy

Sonography courses are sequential, content builds from class to class.

Students must be competent at the appropriate program level before returning to the classroom, lab, and clinical setting. Remediation, scanning skill assessment, comprehensive exams and/or course audits may be required based on the assessment.

Requirements for re-entry into the Diagnostic Medical Sonography program are dependent upon:

TERM OF DEPARTURE, STATUS OF SPI BOARDS, and REASON FOR DEPARTURE.

Students may be readmitted to the DMS program only **ONE** time.

A student must request to be readmitted within 1 year of withdrawal or dismissal.

A student may not have an outstanding balance owed to Pennsylvania Institute of Technology.

Students requesting re-entry are required to meet **ALL** the admission criteria in place at the time of application submission as well as current policies, clearances, and regulations.

Withdrawals, FMLA's and academic failures in Term 5 may have alternative considerations.

American Data Bank compliance is at the student's expense.

Readmission is not guaranteed.

There must be space available at the time of the readmission request.

Students dismissed for academic or disciplinary reasons may be required to meet with an Academic Standards Committee.

In addition to the DMS application requirements, the student must submit a formal, typed, single spaced letter of no less than one page and no more than three pages outlining a plan that identifies the factors that prevented successful completion of the curriculum; and what will be done to prevent these factors from reoccurring if granted readmission to the DMS program.

Extenuating circumstances are at the discretion of the President, Dean, Program Director and/or Advisory Committee.

CPR Certification:

- 1. Proof of certification in Basic Life Support for the Health Care provider offered through the American Heart Association. The student must maintain a current CPR certification while enrolled in the DMS program. Certification is good for two calendar years. In person certification is required.
- 2. If the current certification expires prior to the anticipated graduation date, the student will be required to complete another CPR course while in the program.
- 3. Failure to maintain a current CPR certification will result in immediate withdrawal from all clinical courses.

Background Check:

Criminal and Child Abuse Background Check

DMS Clinical education sites require the student to complete a drug test and fingerprinting and/or supply the results of a criminal and child abuse background check in American Data Bank. Students are responsible for child abuse clearance and any additional background checks/clearances required for the program. Students

who present with positive drug testing results will not be allowed to begin or continue in the program. Refusal by a student to submit to testing will result in that student's dismissal from the program. The results are kept in the American Data Bank repository unless a clinical affiliate requires a hard copy. Clinical affiliates may require similar and/or internal clearances in addition to American Data Bank clearances.

College Closing Information

Information about the College closing, a delayed opening or an early closing will be posted on the website at <u>www.pit.edu</u>. Students should sign up for the Emergency Message System through the college website. This information may be heard on radio station KYW, 1060 AM. The day emergency number for PIT is **504**, and the evening and Saturday emergency number is **2504**.

The DMS Program may create an email "chain" for disseminating information about closing, delays, or including class "make-up" or other essential information. Each student is responsible for keeping his/her contact information current.

Clinical time is not cancelled unless the clinical facility is closed.

Term specific academic calendars can be accessed via the student portal.

Cell Phone Policy

Use of **c**ell phones is not permitted during class time. Cell phones are to be turned off or silenced and put away. A student, who feels he/she has a valid reason to have his/her cell phone turned on while in the classroom or laboratory, <u>must first request permission</u> from the instructor. If given permission, the cell phone may be turned on silent or vibrate mode and the student must leave the classroom to answer it.

Cell phones must be turned off and put away during exams. A student found using a cell phone or other electronic device during an exam will be engaging in academic dishonesty and appropriate actions will be taken.

Electronic Mail (E-mail) Policy

Students are to activate their PIT email accounts and check daily. In addition, students must ensure that the username and password for the network are current and working. PIT email is the only account through which a student should communicate with clinical instructors.

Advising and Assistance (Counseling/Support Services)

Faculty assistance such as tutoring, remediation, etc. is available to each student. It is recommended that the student first seek assistance from the instructor who is teaching the course.

Faculty members are available to students during specified office hours and by appointment. Faculty offices are in the Faculty Tower. Faculty office hours may be listed in the course syllabus.

Tuition and Fees

Tuition and fees are established by the PIT College Board of Trustees. The college reserves the right to

change tuition or fees at any time by action of the Board of Trustees. In addition to tuition and fees, students are responsible for purchasing supplies (i.e.: uniforms, books) for classes/clinical.

As a student in the DMS program, you are entitled to know approximately what costs are associated with the curriculum in addition to the tuition to the college. Costs are subject to change; however, the college business office should provide the student with a reasonable expectation for the amounts involved.

Financial aid and scholarship options are available to assist students in their quest for higher education. Please see the website, College business office and your financial aid representative.

Transportation Expenses

Students are responsible for their own transportation costs to and from all scheduled classes and clinical affiliations. This includes any other expenses incurred for food, parking, tolls, etc. while attending DMS program classes and clinical.

Safety Guidelines and Procedures

Smoke-Free Environment

PIT is a smoke-free facility. In recognition of the clear and present hazards associated with smoking and the responsibility of PIT to provide a healthy environment for everyone, the College has adopted a formal policy **prohibiting smoking throughout all campus buildings and anywhere along the front of the building including the main entrance to the College.**

Equipment

Students are responsible for thoughtful care of all equipment utilized in lab instruction. Any student willingly damaging equipment will be financially responsible for repair or replacement. If equipment is accidentally damaged and a student caused and/or discovers it, and reports it to the instructor, the student will not be financially responsible. All laboratory electrical equipment will be inspected annually by a biomedical company and a sticker will be placed on the item indicating the date. Repairs will be made or arranged as needed. Students should not utilize equipment until they receive instruction on the proper usage.

Etiquette for the Classroom and Laboratory

Students are expected to act in an adult and professional manner when in the DMS lab. In addition, the lab is to remain free of trash. No liquids will be allowed in the lab. Aisles must be kept open and free of clutter. Prior to leaving the lab, it is the responsibility of all students and instructors that the room returns to its previous form with chairs under the desks, windows closed, and all linens placed in the appropriate bins. Supervised open lab times are built into the DMS schedule. Students will be able to request additional access to the DMS lab by contacting the faculty.

Fair Practices

The health and safety of patients, students, and faculty associated with the educational activities of the students must be adequately safeguarded. Therefore, students scan each other during assigned on-campus labs. All students are required to scan an individual for their lab grades. In the event you are not scanned by one of your lab peers on any given day, there will be no adverse effect on grades or evaluations by participation or non-participation.

Informed Consent / Incidental Finding

Students within the DMS Program perform a variety of diagnostic medical sonography exams on volunteers and each other strictly for educational purposes. Students and volunteers must sign a consent and a general waiver of liability prior to being scanned. These consents will remain in effect during the student's tenure in the DMS Program.

Incidental findings are a common occurrence in the DMS lab. Incidental findings on any exam will follow the procedures noted on the "Volunteer Consent" form.

Confidentiality Expectations

Classmates may be asked to share physical anomalies or previous injuries and treatments with the DMS class. If an individual chooses to share this information with the class, it should **NOT** leave the classroom. If an individual does not wish to share a personal diagnosis or anomaly with the class, it is within the right of the individual not to do so.

All individuals, including faculty, who elect to allow themselves to be the "patient" during class and lab activities or choose to share physical anomalies or previous injuries with the class must be able to expect that all information gained during the activity will remain confidential. In other words, whatever is shared during class time must remain in the class and not be discussed outside of the classroom. This is analogous to discussing a patient outside of the clinical environment and the behavior would violate a patient's privacy.

HIPAA

All hospital patient records are confidential in nature. Requests for information concerning a patient should be referred to the clinical instructor. The students are expected to maintain absolute confidentiality of all data involving the patient and the practicum affiliate. All students will be HIPAA (Health Insurance Portability and Accountability Act) trained before the first day of clinicals.

Universal Precautions

Exposure to blood and body fluids is a risk to all healthcare workers. Universal Precautions must be followed at all times. Hands should be washed between sessions of working with different classmates or faculty. Gloves must be worn. All used gloves must be disposed of in a container for regulated waste. In the event any surface in the lab becomes contaminated with body fluids, appropriate cleanup procedures will be implemented.

Students will receive instruction regarding Universal Precautions during orientation.

Infection Control

Maintaining a safe and healthy environment for students and faculty in the classroom and lab is a priority. Program equipment should be cleaned with an antiseptic solution available in the lab. Linens used in class are to be changed after use. Gloves and proper handwashing techniques expected at all times.

Medical Health Insurance and Immunizations

Documentation of a current physical examination is required. The student is also responsible for attaining and maintaining a health insurance policy. The forms and proof of insurance are due PRIOR to the beginning of the first term.

Documentation of immunization or record of disease for Rubeola (Measles), Rubella (German Measles), Mumps, Tetanus and Diphtheria, Varicella (Chicken Pox) and Polio as well as documentation of immunization for influenza are required.

Students are required to have the results of a Mantoux skin test for tuberculosis (TB) completed within the last 12 months. A student who was immunized against TB or received treatment for TB and has a positive Mantoux needs to have a chest x-ray to demonstrate no evidence of active TB. Some clinical education sites may require a more recent test, such as within 30 days before the first day at the clinical education site, or a "two-step" TB test.

The student is responsible for some of the costs incurred for the purpose of completing the necessary health information worksheet, insurance, immunizations and for medical treatment if illness or injury occurs while enrolled in the DMS program.

If a DMS student requires minor medical assistance e.g., for a cut or abrasion, the DMS Lab has a First Aid Kit, which contains bandages and first aid cream along with a eye wash station.

If a student requires immediate medical assistance during a DMS program course, then either a DMS program faculty member or designee will call 911. Should an injury or accident on campus or clinical occur, students must follow this procedure:

- Advise your instructor immediately of the incident
- Ensure that a report is prepared (see report in appendix)
- Obtain a copy of this report for your records

Use of Prescribed Medications

If prescribed medications are used, the student must provide signed documentation from the prescribing practitioner to attend and participate in class, lab, and clinical activities without restriction. The student must report the use of medication that may impair clinical or academic performance to their instructor or advisor. Failure to report the use of such drugs or substances or failure to provide proper evidence of medical authorization for use may result in the student's termination from the program.

See policy in appendix.

Impaired Students / Differently Abled Students

If the student's ability to function safely in the lab is impaired as judged by the instructor, the student will be immediately removed. The instructor will document the incident in Drop out Detective and report to the Program Director. An action plan will be determined. This includes, but is not limited to, falling asleep in the classroom or clinical, slurring words or staggering.

The program also reserves the right to perform drug and alcohol testing upon reasonable suspicion that a student is under the influence of drugs or alcohol. The student will be escorted to the laboratory chosen by the program for the testing. Any student who refuses to undergo testing will be considered to have tested positive. If the test is positive the student will immediately be dismissed from the program.

Cardiopulmonary Resuscitation (CPR)

Students are required to hold and maintain current certification in CPR throughout the DMS program curriculum. Prior to the start of the first clinical phase of the curriculum, the student must provide proof of current in person (not online) individual certification to the Compliance Coordinator. This course must be taken at the level for the professional health care provider. Certification is available through courses provided by the American Red Cross (CPR for the Professional Rescuer) or through the American Heart Association (Healthcare Provider CPR). These courses include the following: infant/child/adult CPR, foreign body airway obstruction, and AED (Automated External Defibrillators).

Employment Policy

While the faculty realizes that employment is necessary for some students, the practice of employment while attending a full-time program may prove harmful to the student's performance and is discouraged. Working prior to clinical may hinder alertness and ability to provide safe care. Clinical and classroom expectations and schedules will not be altered to accommodate student employment. If employed, students <u>may not</u> identify themselves as a representative of the Pennsylvania Institute of Technology Diagnostic Medical Sonography Program by wearing the program uniform, ID badge, or any other item with PIT logo.

Off-Campus Educational Experiences

If at any time DMS students and faculty travel off campus for a departmental related field trip. Students are individually responsible for their own transportation, as well as vehicle insurance coverage. DMS program faculty members will not assume any additional risk by transporting students to an off-site campus activity.

Videotaping, Audiotaping and Sharing of Media

Students may audio tape lectures given by instructors upon approval from that instructor. Videotaping of lab activities is strictly prohibited without written permission from EVERY individual involved in the process. Under no circumstances shall an audio or videotape be disseminated in a public forum without a media release form which has been signed by all entities caught on tape and filed with the appropriate authorities at the College. These rules extend to taping that occurs while on a clinical experience. The faculty reserves the right to video tape skills assessment, lab practical exams and cumulative practical exams (for re-admission) for educational and evaluative purposes. The student will be allowed to view the video upon request.

Process to Apply for the Sonography Principles and Instrumentation Exam

The SPI exam is a timed 2-hour exam of 110 questions. Passing score is 555.

The following steps will occur for students advancing to DMS 203:

Week 1- Students are required to request a copy of transcripts from the Academic Records Office. Week 2- Students are required to register for an account with the ARDMS. Week 3- All required documents will be uploaded; application will be submitted. Fees paid by P.I.T. Week 4- Students are required to select a testing date and time during the term break. Week 5-11-Practice questions every night. Week 12-13 -Take SPI exam.

Review classes with P.I.T. faculty will be scheduled over the break **ESP review classes are available to all students that purchased the Edelman book at a discounted rate, please see faculty for codes** **x-zone should be activated approximately 2 weeks prior to exam.

Sonography Principles and Instrumentation (SPI) Examination requirements please visit <u>www.ardms.org</u> for any further specific instructions.

*SPI exams can be re-attempted every 60 days. *After passing the SPI exam, students have 5 years to take and pass one specialty exam to attain ARDMS status.

Professional Memberships

In Term 2 students are required to join and actively participate in their local, state, and national professional organizations. The professional journals and activities of these organizations provide a stimulating environment for the student sonographer. Additionally, they provide networking opportunities that may lead to jobs and other opportunities within the medical imaging profession. Students may also receive educational journals with membership and be eligible for CME credits by reading the training modules and completing the test at the end. Discounts for educational seminars are typically a benefit of being a member of a professional organization. Join under this category and receive special student discounts plus all the benefits of membership except the right to vote and hold office. Membership gives you the information and tools to help meet your career goals. To qualify for this membership category, you must be enrolled in a

diagnostic medical program. A letter from the program director verifying student status and anticipated graduation date is required before the membership application can be processed. Fees paid by P.I.T. See websites for updated/current fee information: https://www.sdms.org/membership/join-sdms/member-benefits/student-benefits

Grievances and Complaints

Please refer to the College Student Handbook for the Institutional Grievance Policy on pages 16-22. <u>PIT</u> <u>Student Handbook</u>

Faculty Information PIT and DMS

President	Matthew Meyers, MBA	610-892-1500	
Dean of Academic Affairs	Dr. Heather Pfleger Ed.D	610-892-1500	
Assistant Dean of Academic Affairs	Rachelle Chaykin, MA rchaykin@pit.edu	610-892-1500	
Program Director	Denise Boyle MS, RDMS	Denise.boyle@pit.edu	
Clinical Coordinator	Marie Ruoff BS, RDMS, RVT, RT	Marie.ruoff@pit.edu	
Faculty	Laurie Rohrman M.Ed., RDMS, RVT	Laurie.rohrman@pit.edu	

Pennsylvania Institute of Technology Diagnostic Medical Sonography Program Student Handbook

APPENDIX

Butterfly IQ User Agreement

Handheld, Whole Body Ultrasound Device

The user agreement is between PIT DMS program and the DMS Student				
Effective Date: from, 20through	_20			
Student Name (printed)	_Student Name (signed)			

The user will read, understand, and agree to the following:

A. Scope of Use:

- 1. The Butterfly IQ, IPAD, and equipment must be used exclusively for educational purposes.
- 2. Users will be expected to adhere to the same standard of conduct expected in the classroom.
- 3. Users should understand that there is no expectation of privacy.
- 4. Users must respect the privacy rights of others (HIPAA) and
- 5. Users must follow all principles of the ALARA policy

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 or equipment for non-educational purposes.
- 3. Users may not use the Butterfly IQ or equipment for commercial or for illegal purposes.
- 4. Users may not use another student's Butterfly IQ cloud account.
- 5. Users may not damage Butterfly IQ or equipment.
- 6. Users are to be held liable for any damage caused by unreasonable neglect

C. Liability:

1. User will hold PIT harmless in the event of liability: misuse, theft, loss, damage, gross negligence, or willful misconduct.

2. User may not be awarded completion degree in the event of: misuse, theft, loss, damage, gross negligence or willful misconduct, failure to return Butterfly IQ or equipment in working condition as received.

3. User will assume current market replacement cost of Butterfly IQ handheld, whole body *Ultrasound* Device, IPAD and equipment.

D. Maintenance:

1. Users will follow the <u>Butterfly IQ maintenance</u> manual.

2. Users will follow the <u>Butterfly IQ instructions</u> for charging Butterfly IQ handheld, whole body *Ultrasound* Device.

Print Name:	
Signature:	
Date:	
Butterfly IQ Asset Tag#	IPAD Asset tag #
PIT Sonography Faculty Signature	Date

Informed Consent Form VOLUNTEER SCAN/LAB MODELS

I hereby allow myself to be scanned as a model for the Diagnostic Medical Sonography Program at PIT. The purpose of these scans is to provide students with an opportunity to obtain practical scanning experience under direct supervision. I understand that the scanning procedure that I will experience is **not** for diagnostic purposes.

If any abnormalities are detected during the scanning process, I will seek professional advice for formal diagnostic studies or counseling with a practitioner.

Obstetrical volunteers attest that they have been seen by a physician prior to scan. (initial)

Images are used for educational purposes only.

Risks

Although studies have been conducted to assess the health risks from ultrasound energy, a common scientific conclusion reached was that the studies necessary to support a definitive assessment of risk have not yet been determined. However, clinical experience to date shows that ultrasound is a safe, useful means of conducting diagnostic examinations, and there is no compelling reason to believe that adverse delayed effects will be apparent in the future. ALARA principles will be followed.

I hereby waive and release PIT from any claim for damages alleged to result from injuries arising from or related to my participation as a model for the DMS program.

Form is valid for DMS students and returning volunteers for the entire length of program

Medical Marijuana Policy

The Pennsylvania Department of Health has implemented the Pennsylvania Medical Marijuana Program, a component of the Medical Marijuana Act (MMA) that was signed as law on April 17, 2016. This program provides access to medical marijuana for patients with serious medical conditions as defined by the Pennsylvania Department of Health.

Currently, the federal government regulates drugs through the Controlled Substances Act, which does not recognize the difference between medical and recreational use of marijuana. Under federal law, marijuana is a Schedule 1 controlled substance, which means that it is considered to have no medical value. Practitioners may not prescribe marijuana for medical use under federal law.

Students entering any Clinical Health Programs are required to have laboratory screenings for drugs and alcohol upon admission to the clinical phase of the program and on a yearly basis while participating in the clinical experiences. As per current policy, if the results are positive, the student will be dismissed from the program.

Students using medical marijuana will not be eligible for clinical placement in any P.I.T. clinical program due to the current discrepancy between state and federal law regarding Drug Free Workplace Act and the MMA. Businesses who are not in compliance with federal law are at risk for criminal or civil charges; and additionally, may find issue with eligibility for federal contracts and grants.

Additionally, Pennsylvania's Medical Marijuana statute specifically provides that an employer does not have to accommodate an individual in a safety sensitive position if that person is under the influence of medical marijuana. Most positions involving direct patient care will be considered safety sensitive positions.

Students should also understand that under current Pennsylvania State Board law, many health career licensing boards require drug screening at the time of application for licensure. Similarly, most health care employers will perform routine drug screening as a condition for employment, as these positions involve direct patient care, and are considered safety sensitive positions. This discrepancy between federal and state law allows our clinical partners to deny student placement for clinical experiences and the State of Pennsylvania to deny licensure.

In order to be transparent with this entire process, we recognize our responsibility to fully inform students of P.I.T.'s procedure regarding the use of medical marijuana. Due to current laws, we cannot provide admission to the clinical phase of any of our Clinical Health Programs and students who have been admitted and are later to be found positive for medical marijuana will be removed.

Print Name:			
Signature:	 	 	
C			

Date:

Essential Skills Verification Form

____Yes____No I have read, and I understand the Essential Skills relative to the Diagnostic Medical Sonography Program.

____Yes____No I can meet the Physical Requirements of the DMS Program as specified and do not require any reasonable accommodation to meet these requirements at this time.

I require the following reasonable accommodation(s) to meet the Physical Requirement standard.

Print Name: _				
Signature: _				
Date:		_		

EQUAL OPPORTUNITY/NONDISCRIMINATION

It is the policy of Pennsylvania Institute of Technology not to discriminate on the basis of sex, disability, race, age, color, religion, national origin, veteran status, or sexual orientation or any other characteristic protected by applicable law in its educational programs, admissions policies, employment practices, financial aid, or other school-administered programs. This policy is consistent with various state and federal laws including Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1967, and the Americans with Disabilities Act of 1990. For any claims of sex discrimination, sexual harassment, or sexual assault, please contact the College's Title IX Coordinator, Kamira Evans. Ms. Evans' contact information is Department of Student Services, Pennsylvania Institute of Technology, 800 Manchester Avenue, Media, PA 19063. Voice: 610-892-1504; email – kevans@pit.edu. For any other claims under this policy or to request information about services and resources (including reasonable accommodations) for disabled students, please contact the Director of Student Services, Kamira Evans, Pennsylvania Institute of Technology, 800 Manchester Avenue, Media, PA 19063. Voice 610 892-1504; email - kevans@pit.edu.

Performance Improvement Form

Verbal Warning	
Student Name:	
Faculty Member:	
Meeting Date:	
Nature of offense and recommended remediation	
Student signature:	
Faculty Member signature:	
Date:	

Written Warning

This offense was originally discussed with you on______. Recommended changes in behaviors or actions have not been demonstrated. This copy serves as your written notice that the desired effect has not yet been achieved. Failure to produce the agreed upon changes within ______ will result in your removal from the clinical education site and/or dismissal from program.

Student signature:	
0	

Faculty Member signature: _____

Date:	

Incident / Accident Report

INJURED

Student Name:	
Address	
City	State/Zip
Date Injured	Time
Phone:	
Location	
INJURY	
Referred to:	
By Whom:	
Date:	Time:
Student Signature	Date:
PIT Staff Signature	Date:

WAIVER:

l,	decline treatment.
Student Signature:	Date:
PIT Staff Signature:	Date:



800 MANCHESTER AVENUE • MEDIA, PA 19063-4098 (610) 892-1500 Fax: (610) 892-1515 Email: denise.boyle@pit.edu www.pit.edu

DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM

Notice Regarding Criminal Background Checks

The events of September 11, 2011, have caused many organizations to review their screening processes in order to strengthen institutional security. Of particular concern is the screening of health care professionals.

As a consequence, anyone who will have patient care responsibilities may be subject to criminal background checks by prospective employers, state licensing and certification boards, and other organizations. Included among those who are subject to background checks are students seeking clinical experiences.

Please be advised that the hospitals and outpatient centers with which the Diagnostic Medical Sonography Program is affiliated may require background checks of its student. An unfavorable report could bar a student from clinical attendance at one or more of our affiliates. It is at the discretion of the affiliate. If this occurs, it is unlikely that the college will be able to identify a suitable alternative clinical placement. These students may continue taking the lecture and laboratory courses but will not be able to obtain a satisfactory grade in courses where clinical education is a required component.

Student who chose to continue with registration for each term, do so with the understanding that a criminal record could prevent successful completion of the educational program and could prevent the student from being granted a license to practice as a Registered Diagnostic Medical Sonographer.

Acknowledgement:

have read and received a copy of this notice.

[Print Name Legibly]

Signature

Date

Denise Boyle Program Director Diagnostic Medical Sonography Program denise.boyle@pit.edu



800 MANCHESTER AVENUE • MEDIA, PA 19063-4098 (610) 892-1500 Fax. (610) 892-1515 denise.boyle@pit.edu

www.piLe

Attn: Denise Boyle MS RDMS

Program Director, Diagnostic Medical Sonography Program

HISTORY OF CRIMINAL RECORD DISCLAIMER STATEMENT

Student Name:

This document confirms that the implications of a criminal record have been explained to me.

Most of our cooperating clinical sites require students to have criminal history record checks. In some cases, the cooperating clinical site may bar a student with a positive criminal history from their facility. If a cooperating agency is the only site available for the clinical learning experience and it does not permit the student to attend clinical the student will not be able to achieve the clinical objectives.

I understand that a criminal record may be a potential barrier to completing the program, receiving permission to take the registry examination, and obtaining a license. I also understand that a criminal record may preclude me from employment in a variety of settings.

I will not hold the Diagnostic Medical Sonography Program or the Pennsylvania Institute of Technology responsible if I am required to withdraw because I am unable to meet the attendance or the clinical objectives of the program because a cooperating agency has precluded me from the facility, or if I am denied permission to take the registry examination, or if I am denied a license, or if I am precluded from employment in a facility because of my criminal record.

I acknowledge that was directed to the ARDMS to complete a Pre-Determination Application.

The Compliance Pre-determination Application ("PDA") review process is for individuals who wish to determine the impact of a previous criminal or disciplinary matters on their eligibility to apply for ARDMS certification. The Compliance PDA review process is recommended for individuals who have not applied for the examination and are contemplating employment in the field of sonography or enrollment into a sonography program.

I am also responsible for notifying the Program Director of any criminal charges that occur aft er most recent criminal history record check, while still attending the DMS Program .

Student Signature

Date

Witness's signature

Online or Social Media: Standards of Behavior

- 1. Canvas is used for the delivery of instruction and discussions related to academic progress in a class.
- 2. Online classes may not be used to create or transmit material that is derogatory, defamatory, obscene, or offensive.
- 3. Please mute yourself during lectures. You can unmute yourself at any point if you have a question or comment or if you are asked a question.
- 4. You may not express anything that might be interpreted as harassment or disparagement of a person based on their race, color, national origin, gender, sexual orientation, age, disability, or religious or political beliefs.
- 5. When appearing on screen, students and faculty should comply with all dress code expectations.
- 6. If you are using a virtual background, video must be on and please ensure that it is not offensive or overly distracting. Discretion of the instructor.
- 7. Some classes may be recorded and posted for students to re-watch or refer to. Please be aware that you may appear on screen (as a student).
- 8. Students are not permitted to be at work during online classes.

Standards of Behaviors and Online Communication

Students will engage in online communications with one another and their instructor throughout their P.I.T. course. Written communication is an excellent way to express ideas; however, it also eliminates the contributions of our body language and other non-verbal cues. Sarcasm and humor are often lost in the written word unless the writer clearly identifies their statement as such.

Here are a few guidelines to help you follow proper behavior when engaging with one another in an P.I.T. course:

- **Stay on topic:** While discussion is encouraged, rambling rants aren't helpful for a positive learning experience.
- Use specific subject lines in your emails: Provide a succinct explanation of the reason for the email.
- Avoid "I agree" and "Me, too!' messages on message boards: Your instructor is looking for discussion and detail. If you agree with a message post, then explain why you agree with it.
- Avoid posting messages using all caps: It is perceived as SHOUTING! Use all caps only if you are trying to emphasize a point, but you should only capitalize the individual words you want to highlight, not the entire sentence or paragraph.
- **Be professional in all communications:** Even though messages posted on the discussion board are conversational and often informal, please avoid posting messages with grammatical, spelling, and typographical errors.
- Never engage in hate speech: This is speech that attacks or degrades a specific group based on certain characteristics such as: race, religion, orientation, or gender.

- **Carefully choose the format for your messages**. Long paragraphs are difficult for other people to follow on-screen. In general, try to limit each paragraph to five to seven lines and avoid using font styles, colors and sizes that are difficult to read.
- **Be friendly:** Remember, everyone in your class is human. They make mistakes. Before posting a comment, ask yourself "Would I say this to a person face to face?" If the answer is "no," don't post it. Avoid "flaming" a classmate (sending angry messages).
- Avoid responding when you feel emotional: If you're angry about something someone has posted, don't reply to their message until you've had a chance to calm down. Remember, your posted messages can be seen by everyone.
- Your digital footprint is essentially permanent: Anything you post on the internet has the potential to be public knowledge. Be careful about what you share with your classmates and your instructors.

General guidelines for all respectful interactions:

Respect all who are participating in this learning community by

- Realizing they have a right to their opinions
- Respecting the right others have to disagree with you
- Avoiding foul or abusive language
- Signing your name to any message you send
- Respecting your own and your classmates' privacy
- Being constructive in your responses to your classmates
- Being willing to clarify statements which might be misunderstood or misinterpreted by others
- Forgiving someone who may have accidentally offended you

I have read this document and I understand it is my responsibility to engage in proper online behavior.

Print Name: _______

Date:

Student Statement of Understanding and Release

I,______(print name), am a student at Pennsylvania Institute of Technology who is enrolled in the Diagnostic Medical Sonography (DMS) Program. I acknowledge that I have been informed of the following and that I understand the following:

- 1. That the program I have enrolled in may involve exposure to human body fluids that may carry infections such as HIV (Human Immunodeficiency Virus) and Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV).
- 2. That exposure to infectious blood and other body fluids by contact through eye, mouth, blood, non-intact skin or other methods may put me at risk of contracting a blood borne infection.
- 3. That to protect myself from exposure to blood and other body fluid and cultures I will wear protective apparel according to OSHA (Occupational Safety and Health Administration) standards and comply with applicable policies of the College and clinical affiliation that I am attending.
- 4. That if I should become exposed by eye, mouth, blood, non-intact skin or other method to blood or other human fluids or cultures, I will immediately report such incident to the program manager or clinical instructor.
- 5. That if such exposure should occur, I hereby authorize the college or clinical affiliation to administer such immediate first aid as is deemed appropriate until medical help can be obtained.
- 6. That I hereby release and hold harmless Pennsylvania Institute of Technology, its employees, officers, agents and representatives including all clinical affiliates, from any liability for any and all injury, illness, disability, or death, including all costs for medical care, resulting from my exposure to infectious blood or other human fluids or the administration of emergency first aid after such exposure during the course of my participation in the DMS program, whether caused by negligence of the College or otherwise, except that which is the result of gross negligence or wanton misconduct by the College.

Print Name:			
Signature:	 	 	
Date:			

Student Waiver of Liability, Assumption of Risk, and Indemnity Agreement

Waiver: In consideration of being permitted to participate in the Diagnostic Medical Sonography Program, I, for myself, my heirs, personal representatives or assigns, **do hereby release**, **waive and discharge** Pennsylvania Institute of Technology and their officers, employees, agents, successors and assigns from liability **for any and all claims, demands, actions, causes of action, judgments, damages, expenses and costs (including attorney fees)** due to negligence or accidentally resulting in personal injury or illness (including death) and property loss which arise out of, result from, occur during, or are connected in any manner with my participation in the DMS Program.

Assumption of Risk: Participation in the Program carries with it certain risks that cannot be eliminated regardless of the care taken to avoid injuries. The specific risks vary from one activity to another and include but are not limited to 1) minor injuries such as scratches, bruises, and sprains; 2) major injuries such as eye injury or loss of sight, joint or back injuries, heart attacks and concussions; and 3) catastrophic injuries including paralysis and death.

I have read the previous paragraphs and I know, understand, and appreciate these and other inherent risks. I hereby assert that my participation is voluntary, and I knowingly assume all risks.

Indemnification and Hold Harmless: I also agree to INDEMNIFY and HOLD Pennsylvania Institute of Technology and their officers, employees, agents, successors and assigns from any and all claims, actions, suits, procedures, costs, expenses, damages, and liabilities, including attorney's fees which arise out of, result from, occur during, or are connected in any manner with my participation in the DMS Program.

Severability: The undersigned further expressly agrees that the foregoing waiver and assumed risk agreement is intended to be as broad and inclusive as is permitted by the Laws of the State of Pennsylvania and that if any portion thereof is held invalid, it is agreed that the balance shall, notwithstanding, continue in full legal force and effect.

Acknowledgement and Understanding: I have read this waiver of liability, assumption of risk and indemnity agreement, fully understood its terms and understand that I am giving up my rights, including my right to sue. I acknowledge that I am signing the agreement freely and voluntarily and intend by my signature to be a complete and unconditional release of liability to the greatest extent allowed by law.

Print Name:		

Signature:

Date:		

Declaration of Intent

I, the undersigned, have received a copy of the DMS Program Student Handbook. My signature acknowledges I have read the PIT DMS handbook with the opportunity to ask questions about the content. I understand that I will be held accountable for the expectations of PIT students delineated within this handbook and the College Student Handbook as stated or implied. I agree to comply with the policies and procedures. Furthermore, I understand that from time-to-time changes may be made to the handbook and that if this occurs, I may receive a written addendum and may be asked to sign to acknowledge receipt, understanding, and compliance if warranted.

My signature below confirms that I:

- Did receive a copy of the Pennsylvania Institute of Technology Diagnostic Medical Sonography Student Handbook
- Understand that I am expected to comply with the policies and regulations in this handbook
- Understand that I am expected to comply with policies and regulations in Pennsylvania Institute of Technology *Catalog of Courses* and *Student Handbook*
- Understand that if I fail to comply with the policies and regulations the result could be my withdrawal (dismissal) from the program
- Understand that if I have questions about any policy or regulation, I should seek advice from the Diagnostic Medical Sonography Program staff or Student Services staff.
- Understand that I may be asked to submit to drug and alcohol testing.

Name Print:	
Signature:	
Date Signed:	
- 	
Witness Name Print:	
Witness Signature:	

PIT Diagnostic Medical Sonography Program Student Safeguards and Fair Practices

FAIR PRACTICES

The health and safety of patients, students, and faculty associated with the educational activities of the students must be adequately safeguarded.

Therefore, students scan each other during assigned on-campus labs. All students are required to scan an individual for a daily lab grade. In the event you are not scanned by one of your lab peers on any given day, there will be no adverse effect on grade or evaluations by participation or non-participation.

I have been given the opportunity to clarify any information that I do not understand.

Print Name:	 	 	
Signature:	 	 	
Date			

PIT Diagnostic Medical Sonography Program

Self-Grading Attendance Log

Term:_____

Attendance and punctuality during the program can be indicative of patterns moving forward in the workplace. Please grade your professional behavior using this form. Your OVERALL attendance grade will be applied to each class per term.

<u>Late</u> – 5 points (Verbal (V) warning at 75) <u>Absent</u> –10 points (Written (W) warning at 70)

NOTE: Any occurrence after you reach a grade of 70 = meet with Academic Standards Committee

Grade	V/W	Initial
	1	
	+	
	+	

Academic Standards Committee Comments:

Signature and Date

PIT Diagnostic Medical Sonography Student Site Visit

Student Name	·					
Date						
Term						
Affiliate						
Were clinica	lobjectives	assignmen	ts met?			
Assessment	of studies/	skills observ	ed during si	te visit.		
Recommenc	lation for p	ractice or pl	an for reme	diation.		
Student Signat	ure					
Clinical Coordii	nator Signatu	re				
**Fairness in G	rading discus	sed with Clinic	cal Preceptor	Y	Ν	
Clinical Precept	or comments	5:				

Clinical Preceptor Signature

PIT Diagnostic Medical Sonography Program Student Handbook Addendum Pregnancy Declaration Form

To Whom It May Concern: I wish to declare that I am pregnant. My estimated delivery date is: ______.

In making this declaration I wish to accept the following option as denoted in the PIT DMS Handbook, please initial **one** only.

Initials

 Option I: Remain in the DMS Program Without Disruption			
 Option II: Leave of Absence in Good Standing			
 Option III: Voluntary Withdrawal in Good Standing			
 	Date of Declaration		
	Name of DMS Student (Printed)		
 	Signature of Student		

Receipt of Declaration Acknowledged

Program Director Signature

Date



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Administrative Approval Page:

The policies and procedures listed in this handbook have been approved by Cabinet and the Executive Leadership Team of Pennsylvania Institute of Technology, as written in this DMS Program Handbook.

Last date updated: February 2024