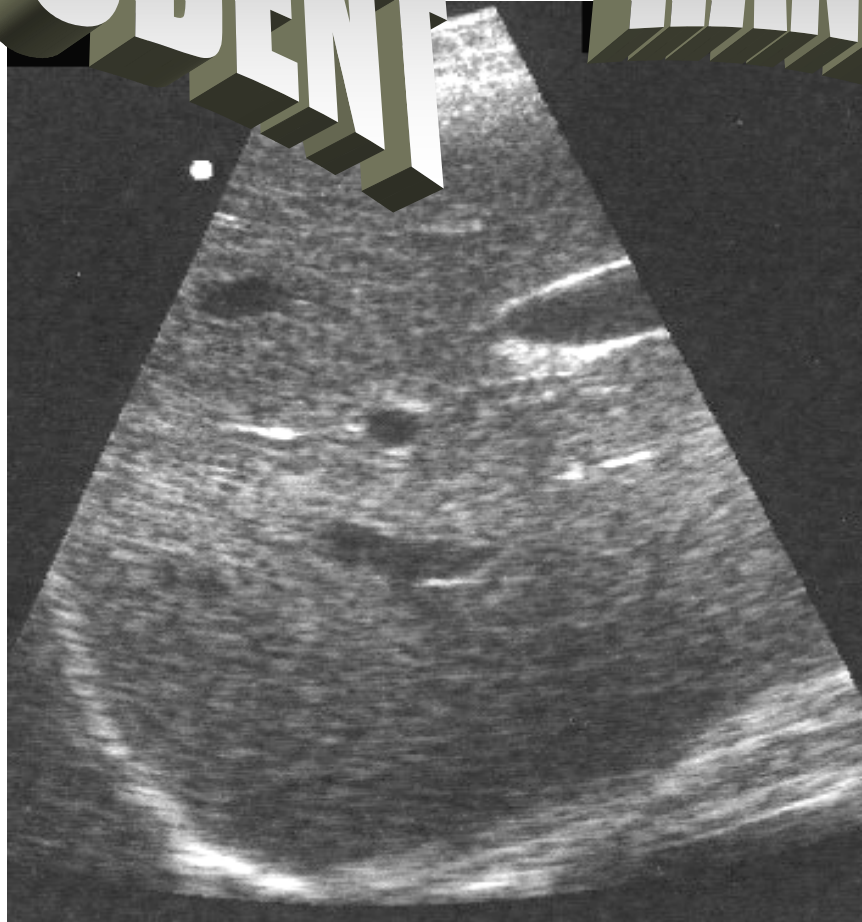


LORAIN COUNTY COMMUNITY COLLEGE
DIVISION OF ALLIED HEALTH AND NURSING
2012-2013

DIAGNOSTIC MEDICAL SONOGRAPHY

STUDENT HANDBOOK



LORAIN COUNTY COMMUNITY COLLEGE
DIVISION OF ALLIED HEALTH AND NURSING

**DIAGNOSTIC MEDICAL SONOGRAPHY
STUDENT HANDBOOK
2012-2013 CLASS**

Prepared by:

Craig Peneff, BSAS, RDMS, RVT
November, 2011

TABLE OF CONTENTS

Verification of Receipt of DMS Handbook (**Signature Required**) 1

INTRODUCTION

Welcome from Craig Peneff, BSAS, RDMS, RVT, Program Director.....2

Accreditation Status 3

College Mission.....3

Vision and Values of the College.....3

Vision 2015 Priorities.....4

General Education Outcomes4

Mission Statement for Division of Allied Health & Nursing.....4

Philosophy of the Diagnostic Medical Sonography Program.....5

Program Goals5

Program Outcomes5

General Attributes of a Diagnostic Medical Sonographer6

Entry Level Requirement for Sonographers7

GENERAL POLICIES AND PROCEDURES

Attendance 8

Absence Policy 8

Tardiness Policy 9

Unexcused Absence.....9

Excused Absence9

Excused Absence/Tardiness Procedure.....9

Unexcused Absence/Tardiness Procedure.....9

Academic Integrity 10

Accommodation Statement..... 10

Anatomy & Physiology Recommendation 10

Appeal Process 10

Assignment of Students to Clinical Agencies 10

Background Checks & Fingerprinting..... 11

Calculators 11

Campus Security..... 11

Cardiopulmonary Resuscitation Certification Policy..... 11

TABLE OF CONTENTS (continued)

Change of Address and Name	11
Clinical Affiliates	12
Clinical Facility Staff/Clinical Liaison.....	12
Clinical Objectives	12
Clinical Expectations.....	12
College Catalog	13
Community Service	13
Conflict Resolution/Line of Communication	13
Confidentiality Policy.....	14
Continued Proficiency	14
Course Withdrawals	14
Dignity & Respect	15
Deficiency Notice	15
Dismissal from the Sonography Program.....	15
Emergency Calls	15
Forty-Hour Week for Students	16
Grading Policies	16
Graduation Requirements	16
Guests and Children in Class.....	16
Health & Physical Requirements.....	17
Identification Cards for Students	17
Inclement Weather (Closing of the College).....	18
Incomplete Grades	18
Laboratory Faculty.....	18
Liability Insurance	18
Medical/Health/Personal Injury Insurance	19
Math Requirement	19
Make-up Clinical Hours	19
Patient Experience	20
Pregnancy Policy	20
Probation.....	20
Professional Society Participation.....	20
Program Evaluation	20

TABLE OF CONTENTS (continued)

Quality of Written Materials 21

Re-entering Diagnostic Medical Sonography Program 22

Repetition of Courses 22

Skills Assessment 23

Smoke Free Environment 23

Student Employment at a Clinical Facility 23

Student Injuries 23

Student Meetings with Faculty 23

Student Records 24

Student Vacations 24

Substance Abuse, Alcoholic Beverages and Gambling 24

Substance –Abuse Clinical 25

Taping of Lectures 25

Telephone Numbers-LCCC 25

Telephones- Cellular Phones & Beepers Policy 25

Unsatisfactory Clinical Practice 26

Infection Control Policy 26

Guidelines for Body Substance Exposure in Clinical Settings 28

Uniform Policy 29

APPENDICES

Competencies 32

Exit Competencies 32

Specific Competencies 34

Generic Abilities 36

Clinical Site Orientation 38

DMS Holdings in LCCC Library 49

Offenses List for Community Health Partners & Allen Medical Center 51

SDMS Code of Ethics 53

Scope of Practice for the Diagnostic Ultrasound Professional 55

Diagnostic Ultrasound Clinical Practice Standards 56

DMS Clinical Master Plan 63

Laboratory Waiver (**Signature Required**) 64

LORAIN COUNTY COMMUNITY COLLEGE
DIVISION OF ALLIED HEALTH AND NURSING

DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM

VERIFICATION OF RECEIPT and ACKNOWLEDGEMENT OF POLICIES

This handbook of Policies concerning the Diagnostic Medical Sonography Program has been compiled to help and inform you, the student. You are responsible for the information included in this handbook.

Please read the statement below, sign and give this sheet to the Program Director/ Coordinator as an indication that you understand the contents, and agree to abide by all the policies within this document, no later than the end of the second week of classes.

I have read, understood accept and agree to take full responsibility for the policies, information and rules of conduct in the student handbook.

STUDENT NAME (PLEASE PRINT)

STUDENT NUMBER

STUDENT'S SIGNATURE

DATE

LORAIN COUNTY COMMUNITY COLLEGE
DIVISION OF ALLIED HEALTH AND NURSING

DIAGNOSTIC MEDICAL SONOGRAPHY

Welcome from Craig Peneff, RDMS, Program Director of the Diagnostic Medical Sonography Program.

The faculty of the Diagnostic Medical Sonography Program and I want to welcome you to an exciting and challenging health care field. Diagnostic Medical Sonographers work under the supervision of a physician (often a radiologist or obstetrician). We hope your observation days have given you a good understanding of the job expectations and responsibilities of a sonographer as well as give you an idea of the positive and negative aspects of the field. I want to briefly outline some of these as you are entering the Program. The duties of a diagnostic medical sonographer include: providing patient care; scanning patients to produce ultrasound images of the body; correlating patient symptoms, lab values, and other imaging tests with the sonographic images; writing summaries of the scans: as well as other tasks necessary to provide efficient, cost-effective health care.

Included in performing sonographic exams is an understanding of human anatomy and physiology, disease processes and the normal and abnormal ultrasound appearances. Also a good understanding of ultrasound physics and instrumentation is necessary to produce diagnostic images. One must understand that a sonographer is much like a detective who puts various pieces of information together to develop a conclusion. However, it is not solely based on intelligence, it also depends on eye-hand coordination, common sense, treating others with respect, providing the best of care and the ability to perform multiple skills quickly and efficiently at one time. This may be the most challenging as a sonographer must perform the scan, continuously adjust equipment controls, observe/assess the patient's condition, assess the appearance of the images and determine if it is normal/pathologic/equipment control related and if there is pathology present, what correlates with the symptoms and what else needs to be evaluated to accurately present it to the physician. Unfortunately, not everyone is able to be a sonographer.

While the profession is quite challenging and rewarding, there are some negative aspects that I feel you should be aware of. One of the most common misconceptions is that sonographers do not have to deal with body fluids or needles and such. Note above that patient care is listed. This is an important aspect because sonographers are responsible for the patient's needs while in the ultrasound laboratory. Not only do we perform scans that include inserting the probe into the vagina or rectum, we often have to clean up occurrences from all bodily functions while acting professionally and treating the patient with respect. We also assist the physician in performing biopsies, fluid aspirations or may have to go to the surgical suite to provide guidance. With the future availability of the new contrast that is currently being tested we may soon be expected to give patient injections. While the obstetric exams are the most popular, there are many pathologies of the pregnancy that the sonographer may be the first to identify such as genetic defects, miscarriages or prenatal death. Unfortunately this may cause an ethical dilemma or stress to the sonographer and one needs to learn to approach such situations professionally, separating it from their personal lives and beliefs to give the patient the best care possible.

Currently there is a shortage of sonographers. While this is promising for new graduates, work situations are often short from ideal. Sonographers often do not work a normal eight-hour day. They are often expected to stay until all of the ordered exams for the day are completed. Most sonographers have to take emergency call during the night and weekends after working their normal shift. Many are expected to report for their normal shift after being called-in several times throughout the night. This may cause additional stress with the job. Fortunately, several employers are developing additional shifts as well as more flexible hours to reduce this problem.

Another aspect that students should be aware of is the risk of job related repetitive strain injuries. Students having current back, shoulder or wrist problems should seriously consider entering the sonography profession. Recent studies by the SDMS has shown sonographers have a predisposition for developing back problems, carpal tunnel syndrome or frozen shoulder or various other muscular-skeletal injuries from years of scanning. Currently, OSHA and the SDMS are addressing this issue to improve working conditions, equipment design and preventative techniques to minimize these occurrences. However if you currently have these types of problems, you should investigate and consider your options.

I expect that the students and faculty work hard to provide the best services of the highest quality to everyone and treat everyone with respect. I feel that one should love what they do and do it well and always strive to do it better. If you enjoy what you do, learning and improving is easier and fun, than trying to do something you hate. I truly believe that if one hates their job, then it is work, if one enjoys what he/she does then it is easier to tolerate the occasional problems. Also, if one enjoys what he/she does, then there is more interest in improving and staying current with new developments. This is no longer a job but a career. You as a student or as a graduate represent the college, the program and the faculty of the program as well as the profession, and I want you to be the very best.

Currently, there are nine different specialties of sonography: Abdomen, Obstetrics and Gynecology, Neurosonography, Breast, Peripheral Vascular, Fetal Echo, Adult and Pediatric Cardiac. Of these, the LCCC Diagnostic Medical Sonography Program will prepare you for the abdomen, and obstetric/gynecologic specialties and will give you a

good basis for the peripheral vascular specialty and introduce you to the neurosonography, breast and fetal echo specialties as well.

Our goal is to provide you with an up-to-date education, preparing you for successful entry into the workforce. With that in mind, the program is designed for highly motivated individuals. The program is challenging, time consuming, demanding and upon successful completion, rewarding. It is essential that one is: well organized; have good time management skills; have good study habits; and can minimize other responsibilities while in the program.

The admissions process has been designed for students to complete any needed support coursework. I strongly recommend that if you need help in studying techniques or feel you have test anxiety that you contact Theodora Scott, Coordinator of the Office of Special Needs/Services at extension 4124. Hopefully, you have prepared your family and your life for the upcoming year as the last four semesters will be the most time consuming and difficult.

The sonography faculty, staff and administration of LCCC want you to succeed. There are no guarantees that you'll master everything that you need to know, but the program faculty will do everything possible to support you. Likewise you will find that you will need to work extremely hard and practice to become proficient at the skills necessary to provide the best of care and diagnostic images to the patients. There is a lot of information that is expected of you to learn and recall but patients' lives will depend on your accuracy.

Part of our job is to teach you that the learning is continuous. I've been in the profession for 25 years and every year there has been something new to learn. The field of diagnostic medical sonography is a constantly changing and rewarding profession. Some of what you learn may become outdated. So it is of utmost importance for you to understand the need to keep learning. I encourage you to join the SDMS, the national sonography society and learn what resources it can provide. Attend local continuing education courses, read, ask questions, and consult with others. Develop a desire to learn and always improve your scanning and diagnostic abilities.

Craig Peneff, BSAS, RDMS, RVT

Accreditation Status

The LCCC Diagnostic Medical Sonography program is accredited by the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS), 6021 University Boulevard, Suite 500, Ellicott City, MD 21043, Tel., (443) 973-3251 or at <http://www.jrcdms.org> or the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park Street, Clearwater, FL 33756 or <http://www.caahep.org/> in general sonography. Upon graduation you are eligible to take the national certification exams in the Abdomen and Obstetrics/Gynecology specialties and Sonographic Principles and Instrumentation given by the American Registry of Diagnostic Medical Sonographers (ARDMS), 51 Monroe Street, Plaza East 1, Rockville, MD 20850-2400, Tel. 800-541-9754, <http://www.ardms.org/>

COLLEGE MISSION

Lorain County Community College, an innovative leader in education, economic, community, and cultural development, serves as a regional catalyst for change in a global environment through accessible and affordable academic and career-oriented education, lifelong learning, and community partnerships.

(LCCC College Catalog,

http://catalog.lorainccc.edu/About+Lorain+County+Community+College/Mission_Vision_and_Values.htm)

VISION AND VALUES OF THE COLLEGE

Vision Statement

Building a world-class community through education, innovation, and collaboration. (College Catalog http://catalog.lorainccc.edu/About+Lorain+County+Community+College/Mission_Vision_and_Values.htm)

Values

Excellence

We commit to quality in all endeavors and embrace excellence in all that we do.

Learning

We believe in creating dynamic environments that enhance the teaching and learning experience.

Individuals

We strive to inspire individuals to become creative and critical thinkers to assist them in reaching their full potential.

Partnerships

We encourage collaboration, teamwork and cooperation in promoting partnerships throughout our region.

Innovation

We embrace a culture of continuous innovation and quality improvement that encourages flexibility and risk taking.

Diversity

We value the contribution and worth of all individuals and ideas and believe that diversity is a competitive advantage for succeeding in a global society.

Stewardship

We believe in serving our constituents and community in the most responsible and accountable ways to ensure our public's ongoing trust

Engagement

We promote an open environment that provides stakeholders with a voice in the planning and decision-making process. (College Catalog, http://catalog.lorainccc.edu/About+Lorain+County+Community+College/Mission_Vision_and_Values.htm)

Vision 2105 Priorities (College Catalog

http://catalog.lorainccc.edu/About+Lorain+County+Community+College/Mission_Vision_and_Values.htm

1. Raise the community's participation and attainment in higher education.
2. Prepare globally-competent talent to compete in the innovation economy.
3. Accelerate business and job growth to enhance regional competitiveness.
4. Connect Lorain County with regional priorities and partners
5. Serve as a catalyst for enhanced community life
6. Build the College's resource capacity

GENERAL EDUCATION OUTCOMES

The Diagnostic Medical Sonography Program supports the General Education outcomes established by Lorain County Community College, and the content of DMS courses has been developed to address these Outcomes. The following is the College's General Education Outcomes policy: (College Catalog <http://catalog.lorainccc.edu/Course+Descriptions+and+Requirements/>)

Through its general education program, Lorain County Community College provides the student with the knowledge, understanding and skills that our society expects from any college-educated individual. General education introduces the student to academic disciplines and fosters critical thinking, rigorous investigation and effective communication. The experience of general education is valuable because it helps the student to:

- Prepare for further academic studies, professional accomplishments and lifelong learning.
- Become an engaged member of the community.
- Adapt to a changing world.
- Understand and appreciate diverse aspects of human civilization and the natural world.

Infused General Education Outcomes

These outcomes are infused into all programs (degrees and certificates) either by the use of a course requirement which includes these outcomes or by infusion into program courses.

Critical Thinking – Employ critical thinking skills in addressing issues and problems.

Diversity – Analyze the role of diversity in the development of the individual, the community and the global society.

Ethics – Apply personal, professional, social and civic values.

Communication – Demonstrate competence in verbal and nonverbal communication.

Health – Identify behaviors that promote the health of the individual.

Core Course General Education Outcomes

Some or all of these outcomes are achieved in all programs through the completion of core courses.

English – Demonstrate logical organization, coherent thinking, and precision in writing.

Mathematics – Utilize college mathematics to solve problems.

Natural Sciences – Apply scientific concepts and methods of inquiry.

Social Sciences – Apply concepts, principles and methods of inquiry in the social sciences.

Humanities – Examine the nature of human expression and/or artistic creativity.

MISSION STATEMENT FOR THE DIVISION OF ALLIED HEALTH & NURSING

The Division of Allied Health and Nursing supports the mission of Lorain County Community College by providing high quality learner-centered education to health care providers, to individuals pursuing careers in health care, and to the older adult in response to the needs of the community.

To support this mission, the Division of Allied Health and Nursing has established the following goals:

1. The division will encourage and support the development and continuation of quality health care programs that meet the needs of the community through excellence in teaching and learning.
2. The division will encourage and support faculty development of innovative teaching methods.
3. The division will encourage the development of quality health related education programs for the community.
4. The division will support the development of peer-led life enhancing educational programming to a diverse older adult population.
5. The division will encourage faculty to assume leadership roles in the health care community.

PHILOSOPHY OF THE DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM

As an integral part of our college, the program in Diagnostic Medical Sonography adheres to the mission, vision and values of Lorain County Community College and functions within the general policies of the college.

We believe that a Diagnostic Medical Sonographer should have a workable understanding of sonographic positioning, anatomy and physiology, pathology, ultrasound physics and all other courses necessary for the fulfillment of the requirements for Diagnostic Medical Sonography. Training and proficiency in these areas will result in a professional practitioner, able to serve the public and assist the physician in diagnosis.

The Program's mission is to provide students through the integration of didactic, clinical and laboratory experiences with comprehensive abilities to perform sonographic procedures in abdomen, obstetrics, and gynecologic specialties as well as provide basic knowledge and skills in the vascular specialty area through instruction in anatomy and physiology, pathophysiology, ultrasound physics, instrumentation and safety, image evaluation, and patient care as applied to Diagnostic Medical Sonography.

The Program also strives to introduce the student to various advanced specialty areas in sonography as well as technology to instill lifelong learning beyond the scope of the program.

Goals of the Diagnostic Medical Sonography Program

- o To provide high quality didactic and clinical education in Diagnostic Medical Sonography focusing in the general concentration (abdomen, ob/gyn) and providing a basic knowledge and skills in vascular sonography.
- o Produce competent, entry-level sonographers who are compassionate, patient-focused members of the health care team.
- o Develop the students' communication and critical thinking skills necessary in performing quality sonographic exams.
- o Provide an educational experience to support and comply with the Code of Ethics for the Profession of Diagnostic Medical Ultrasound and the Scope of Practice for the Diagnostic Ultrasound Professional as developed by the Society of Diagnostic Medical Sonographers
- o Provide students with the knowledge, clinical skills, problem-solving abilities and interpersonal skills to practice in the profession of sonography.
- o Graduate competent, caring sonography professionals who are prepared to pass the ARDMS certification exams in sonographic principles & instrumentation, abdomen and ob/gyn specialties.
- o Emphasize to students the importance of continued improvement through professional life-long learning.

Program Outcomes:

Graduates of the Lorain County Community College Diagnostic Medical Sonography Program should:

1. Demonstrate competence and proficiency in performing abdominal, small parts, obstetric, gynecologic and basic vascular (carotid/venous leg) ultrasound examinations.
2. Apply principles of ultrasound physics to patient examinations to obtain diagnostic information.
3. Correlate clinical history, patient symptoms, and laboratory test results with sonographic findings.
4. Identify common pathologic diseases and differential diagnoses through correlation of sonographic appearances, clinical symptoms and laboratory test results.
5. Provide basic patient care, comfort and nursing skills.
6. Practice and apply the ALARA principle in performance of diagnostic ultrasound examinations.
7. Be prepared to take and pass the ARDMS registry examinations in ultrasound physics & instrumentation, abdomen and obstetrics & gynecology.

8. Practice lifelong learning by staying current in sonography through continuing education, achieving certifications in additional specialties and achieving advanced degrees.
9. Be a productive team-player
10. Be an efficient, cost-effective member of the health care team
11. Recognize the importance of the multidisciplinary health care team.

GENERAL ATTRIBUTES OF A DIAGNOSTIC MEDICAL SONOGRAPHER

Students who are successful in Diagnostic Medical Sonography are emotionally mature, academically able, highly motivated, self-disciplined and willing and able to devote a considerable amount of time to their program. They are patient and enjoy working with and serving people. They are able to physically move patients. They are able to follow orders.

Based upon job performance tasks, the entry level graduate sonographer will be utilizing all of his or her sensory perceptions as well as mental and intellectual skills in the verbal, written and mathematical areas. Certain physical characteristics of the profession will have physical demands placed on the sonographer.

To expand on this, the following general attributes are necessary for entry level positions in Diagnostic Medical Sonography

Language Arts/Communications

Verbal

The sonographer:

- must speak clearly, concisely and employ correct vocabulary and grammar for communication with staff, physicians, students, faculty, patients and the public.
- must give verbal instructions to patients.
- must explain procedures to patients.
- must give breathing instructions to patients.
- must provide an oral summary of the ultrasound exam.

Written

The sonographer:

- must write Preliminary Reports dictated by the radiologist.
- must describe in writing various types of incidents that occur to the patient.
- must write on patient charts and requisitions using correct grammar, spelling, punctuation, sentence structure and appropriate medical terminology.
- must write a summary of the ultrasound exam.
- must write legibly.

Sensory Attributes

Visual

The sonographer:

- must confirm the patient's identity from the identification band and x-ray number.
- must have the ability to read the physician's orders and requests, as well as the patient's clinical history from the request and chart.
- will find and read the laboratory results in patient's chart.
- will observe the patient for shock or respiratory distress.
- will identify normal and abnormal structures on various diagnostic imaging procedures.
- will adjust various equipment settings to create optimal images.
- will work in dimly lit room watching a TV monitor for long periods at a time.
- will perform safety checks on the equipment.

Auditory

The sonographer:

- will take blood pressures and will use a stethoscope to hear blood flow.
- will take a brief medical history from the patient and will record the verbal responses of the patient.
- will listen to Doppler flow patterns during vascular studies.
- will answer telephones and acquire pertinent information.
- will follow verbal directions from physicians, other medical personnel, and supervisors

Touch

The sonographer:

- will touch the patient with a microphone-like device to obtain images.
- will touch the patient to palpate masses in assessing the patient.
- will touch the patient to stabilize, provide moving assistance and patient care.

Body Mechanics and Physical Characteristics

The sonographer:

- will move patients by lifting and sliding.
- will push mobile sonographic equipment from the sonography department to the operating room, emergency room and to the patient's room.
- will move patients for proper positioning on the exam cart.
- will use eye-hand coordination.
- will grip the ultrasound probe for extended periods of time (often exceeding 30 minute intervals).
- will press, angle, and slide the ultrasound probe to obtain required images.
- will reach to full arm extension for extended periods in order to obtain required images.
- is often required to stand while doing his/her job for extended periods of time.

Intellectual and Mental/EmotionalIntellectual

The sonographer:

- will use algebra in solving physics problems.
- will use equipment in quality control.
- will use rote memorization and recall in fulfilling exam protocols.
- will perform patient assessments
- will acquire and analyze data obtained using ultrasound and related diagnostic technologies
- will use independent judgment and systematic problem solving methods to produce high quality diagnostic information and optimize patient care
- will use cognitive skills to recognize normal and abnormal sonographic patterns, and integrate this knowledge with patient's history, to assist the physician with diagnoses.
- will integrate abnormal laboratory test results and/or patient history with orders for sonographic procedures.

Mental/Emotional

The sonographer:

- will perform procedures in the emergency room, operating room, and intensive care unit.
- will participate in procedures related to fetal malformations, fetal death, and invasive procedures such as biopsies and fluid aspirations.
- will be required to make independent decisions and carry a high level of responsibility.
- must interact with trauma patients, chronically ill patients, acutely ill patients, and terminally ill patients of all ages.
- must provide service to all patients, regardless of age, sex, race, national origin, religion, or physical condition and disease process.

These attributes are also integrated into our educational process in the form of academic and clinical performance objectives. If you feel that because of a learning disability, physical disability, or mental/emotional condition you would have a problem accomplishing these entry level skills, then please make an appointment with the following: an academic counselor, the coordinator of the Office of Special Needs Services, and a faculty member of the Diagnostic Medical Sonography program. Having a special need may not preclude you from entering the program.

ENTRY LEVEL REQUIREMENTS FOR SONOGRAPHERS

The Diagnostic Medical sonographer is required to routinely perform the exit competencies listed at the end of the handbook, as well as performing additional attributes such as, but not limited to the following:

1. Push and pull heavy equipment (500 pounds) up to distances of 800 yards.
2. Lift more than 50 pounds routinely.
3. Bend and stoop routinely.
4. Stand for long periods of time.
5. Watch computer screens in dimly lit rooms for up to 10 hours a day.
6. Have 20/20 corrected vision.

7. Adequately view sonograms including color distinctions.
8. Have proper corrected hearing to distinguish audible sounds.
9. Have full use of hands, wrists and shoulders.
10. Display capability of typing and scanning with opposite hands.
11. Demonstrate dexterity.
12. Demonstrate the ability to fully extend his/her arms and apply downward pressure while scanning.
13. Demonstrate strong grip strength to grasp the transducer while applying downward pressure while scanning.
14. Demonstrate an ability to move one's arm in a scrubbing motion which is required during scanning.
15. Demonstrate the ability to think in the abstract.
16. Demonstrate the ability to determine three-dimensional structures from two-dimensional images.
17. Interact compassionately and effectively with the sick or injured.
18. Assist patients on and off examining tables.
19. Communicate effectively with patients and other health care professionals.
20. Organize and accurately perform the individual steps in a sonographic procedure in the proper sequence.

GENERAL POLICIES AND PROCEDURES

ATTENDANCE

As the student of diagnostic medical sonography is entering a professional career, regular attendance and punctuality nurture the development of an appropriate work ethic. The student is therefore encouraged to think of his/her classroom, laboratory, and clinical responsibilities as their primary career commitment. Any absence is strongly discouraged. Students are expected to schedule any outside appointments at times that will not interfere with their class, lab or clinical schedule.

The Diagnostic Medical Sonography faculty believes all clinical, laboratory, and classroom experiences are essential to prepare the sonography student in the delivery of safe patient care. Clinical, laboratory and classroom attendance is mandatory throughout the program because the high level of responsibility and accountability innate in the practice of diagnostic medical sonography, and because the consequences of an error can be devastating to a human being.

To assure that students can meet their clinical and classroom requirements and obligations, all students are required to arrange **TWO** alternative plans of action regarding babysitting/daycare or car problems should unplanned situations occur that may interfere with attendance.

ABSENCE POLICY

Attendance and punctuality are among the highest expectations that facilities expect of their employees. Potential employers inquire about attendance and punctuality throughout one's training program.

In preparation of one's professional career and success, absence and tardiness are strongly discouraged. Each student is expected to attend all lectures/labs/clinicals for the duration of the program. Absences and/or tardiness should only occur in extreme circumstances. The student will be permitted two excused absences of any course per semester. **Absences are cumulative for courses having a lab and/or clinical component. A third absence of any course/component will be considered unexcused and will be given a deficiency notice and be dealt with according to the Tardiness/Absence Procedure below.** It is

the responsibility of the student for obtaining notes and material covered in class during their absence as well as make arrangements to make-up any missed clinical time with the clinical liaison.

Any planned change of the clinical schedule by the student must be approved by the program director & clinical coordinator at least one week in advance prior to being arranged with the clinical liaison/clinical staff. Failure to do so will count an unexcused absence and a deficiency notice will be given.

Students must meet the minimum number of hours and clinical competencies assigned for each semester. *No time will be carried over from a previous semester.*

Tardiness Policy

Being late to the clinical site, lecture or laboratory is discourteous and unprofessional and will not be tolerated. In the clinical setting, tardiness may affect the clinical assignments which may be difficult to duplicate or arrange. **At the clinical site, students are expected to be consistently in the clinical work area ready for assignments prior to the designated starting time for all sessions.** The student is responsible for discussing the reason for tardiness with the clinical instructor at the earliest opportunity.

Tardiness greater than five minutes is considered an unexcused absence.

Unexcused Absence: Not notifying the instructor or clinical faculty when you are unable to attend prior to the designated started time, no matter what the reason for the absence. Examples of an unexcused absence include but are not limited to: preventable absences due to non-illness, e.g. oversleeping, taking vacation during the term, child care difficulties. Tardiness greater than five minutes for any lecture/lab/clinical.

Excused Absence: Verifiable illness, or illness of an immediate family member. Death in the family. Car breakdown or accident on the way to the clinical site/lecture/lab.

Note: These are only examples of possible EXCUSED and UNEXCUSED absences. It is always up to the discretion of the clinical or academic faculty whether to excuse the student's reason for absence.

Excused Absence/Tardiness Procedure

Students must call the instructor and give the reason for their absence when he/she will be absent from lecture, laboratory or clinical experience. Students must notify the clinical instructor (or liaison) at least one-half hour prior to their scheduled starting time if they will be absent from time at the clinical site on any scheduled day. If a student realizes he/she may be tardy to clinical/lecture/lab, he/she should notify the facility and instructor as soon as possible. The instructor or clinical liaison has the discrepancy to decide if tardiness is due to a situation beyond the student's control. Repeated occurrences will result in disciplinary action. Extenuating circumstances that result in long term absences/disability may result in a course failure or incompleteness. The student can request their case to be reviewed with the program director and counseled regarding their options.

Failure to notify will result in the student receiving a deficiency notice and counted as an unexcused absence. Prolonged absence (3 consecutive days) or infectious illness requires a written clearance from a physician to return to the clinical area.

Unexcused Absence/Tardiness Procedure

Absences or tardiness will be dealt with in the following manner:

- First Offense: (excused) Verbal warning and makeup work as determined by the instructor.
- Second Offense: (excused) the student will receive a written Deficiency Notice.
- Third Offense: (Unexcused) the student will receive a second Deficiency Notice which outlines the students plan for correction **and** five (5) points will be deducted from the final course grade of the clinical course.
- Fourth Offense: (Unexcused) The student will receive an Unsatisfactory (U) or Failure (F) grade for the clinical course.

ACADEMIC INTEGRITY

Students are expected at all times to maintain academic ethics and honesty. Within the Diagnostic Medical Sonography Program, the highest ethical and academic standards are expected, as would also be expected in clinical practice. Academic dishonesty, plagiarism and any form of cheating are specifically prohibited.

Anyone caught cheating on a quiz or exam, not doing their own work in the college laboratory will be given a zero for that quiz/exam/assignment, dismissed from the program and reported to enrollment services for violation of the Code of Student Conduct. Anyone caught performing any type of dishonest or unethical practice at a clinical site will be subjected to an Unsatisfactory (U) clinical grade and immediate dismissal from the clinical site and program and reported to enrollment services for violation of the Code of Student Conduct. Offenses are subject to disciplinary actions as noted in the Code of Student Conduct. Students found to be cheating or committing plagiarism of any kind can be removed from the classroom, lab, and clinical setting and dismissed from the program pending investigation and resolution through the Code of Student Conduct. (See the Code of Student Conduct in the current College catalog for specific examples <http://catalog.lorainccc.edu/Campus+Policies/StudentConduct.htm>)

ACCOMMODATION STATEMENT

The Office for Special Needs Services exists to serve the needs of students with disabilities - physical, learning and/or emotional. If you are a person with a disability who needs accommodations or assistance, contact the O.S.N.S. located in the College Center, Room 234. Phone - ext. 4058. Once any accommodations have been determined, students must submit a signed VISA to the instructor within the first two weeks of the semester. Extended time will not be granted in assessing performance of clinical skills.

ANATOMY AND PHYSIOLOGY RECOMMENDATION

It is recommended that students do not take the anatomy and physiology courses earlier than one year prior to the start of their clinical courses.

APPEAL PROCESS

Within the Division of Allied Health and Nursing and the Medical Sonography Program, students may avail themselves of the right of appeal on evaluations, conduct by the following process:

1. Discuss the problem with the faculty member involved; if not satisfied, then discuss the matter with the director of the program.
2. Discuss the matter with the division director if not satisfied in step 1.
3. Take the issue to the appropriate Vice-President if not satisfied in Step 2.

As provided in the College catalog (check index of current catalog for details), students have the right of appeal to ensure due process.

ASSIGNMENT OF STUDENTS TO CLINICAL AGENCIES

The program reserves the right to change clinical agency assignment of students and/or clinical sections at any agency. Assignment to the clinical facility is determined by the Diagnostic Medical Sonography program faculty. Clinical rotations may be outside the immediate area. Students are responsible for their own transportation and living arrangements during the clinical rotations. No guarantees can be made that students can remain in the area for any or all of the clinical rotations. Program policy prohibits a student to be assigned at a facility where they are employed. Students may be required to pay for parking at some clinical sites. Due to contractual agreements between Lorain County Community College and each clinical affiliate, the clinical affiliate has the right to ask that a student be removed from the clinical site. Students must submit all required health forms prior to admission to any clinical agency. Some clinical facilities require background checks. All students are required to have fingerprinting done in the Security Office of the College upon entry into the Sonography Program.

BACKGROUND CHECKS & FINGERPRINTING

The Allied Health & Nursing programs have had to institute fingerprinting and background checks for students due to contract requirements of the clinical sites. Fingerprinting will be performed after the initial orientation/registration meeting prior to the starting the program. The fingerprinting will be performed on campus through an outside agency and processed through the Ohio Bureau of Identification and Investigation. Students who have not been residents of Ohio for five years also need to have the FBI Web Check. Students will be given information where the agency's offices are located if they are not able to be tested when the agency is on campus. The students will be given information to log into the agency's website to register and pre-schedule before the testing date. The program faculty and staff will have access to the results and will forward the results to the appropriate clinical site. The cost of the fingerprinting and background checks is included through the special fees of the sonography program. A list of offenses that would prevent a student from attending a clinical facility can be found in the appendix of this handbook. Additionally, some clinical facilities will perform fingerprinting and background checks (at no charge to the student) as part of the students' orientation process to that facility. These may be more stringent or less stringent than what is done through the agency contracted by the college. A student who fails the background testing based on any facility's guidelines will be unable to be placed in a clinical facility and unable to continue in the program sequence.

CALCULATORS

A calculator is required for SONO 221 and 222, Ultrasound Physics and Instrumentation I and II. Calculators with the capability to store formulas in memory may **not** be used on tests. Students will benefit from a calculator with the following functions: square, square root, exponential notation, scientific notation, inverse, memory, logarithms.

CAMPUS SECURITY

Campus Security has staff on duty 24 hours a day, seven days a week. Campus Security is dedicated to serving the college community by striving to provide a safe and secure environment for students, faculty, staff and visitors. Specific elements of the Campus Security mission include: accident investigation, incident/crime investigation, crime prevention, vehicle assists, parking and traffic enforcement, emergency medical assistance and disaster coordination. The Campus Services Office is located in the LCCC Library/Community Resource Center room 106 and may be reached from anywhere on campus by phoning extension 4053 or from off-campus, 440-366-4053 or TDD 440-366-4136. For on-campus emergencies, dial 4444 from a campus phone. If you do not have access to a regular campus phone, activate any of the emergency phones by pushing the large red button. This will put you in touch with the Lorain County 9-1-1 system. (College Catalog, <http://catalog.lorainccc.edu/Campus+Security/>)

CARDIOPULMONARY RESUSCITATION CERTIFICATION POLICY

All students must have completed an American Heart Association *Healthcare Provider C.P.R.* course before entering the program and must still have a current certificate at the time of graduation.

Students who have not completed this C.P.R. requirement may not enter the clinical agency. Students not certified at the time of graduation will not be considered as having successfully completed the program requirements.

The student is responsible for renewing their C.P.R. certification before the expiration date, as the Division of Allied Health and Nursing does not recognize a "grace period" following expiration. Students cannot attend clinical without current certification. Students are to give a copy of their C.P.R. card to secretary in the Division of Allied Health & Nursing office suite, HS 223.

CHANGE OF ADDRESS AND NAME

In addition to giving a change of address or name to the College Records Office, the student also is requested to give the information to the secretary in the Division of Allied Health and Nursing office suite, Room HS 223.

CLINICAL AFFILIATES

AFFILIATE	CONTACT PERSON/LIASON	TELEPHONE #
Amerst/EMH Hospital	Michelle Dossa	(440) 988-6211
Allen Medical Center	Cathy Kennelly	(440) 775-1211
Avon Women's Center	Marcia Fritz	(216) 476-7828
Avon/EMH Fitness Center	Terri Gabrie	(440) 988-6940
Cleveland Clinic Foundation	Mark Moore	(216) 444-6484
Cleveland Clinic – Chestnut Commons	Michelle Pence/Sondra Powell	(440) 366-9444
Community Health Partners	Tonya Cazzell	(440) 960-3534
EMH Regional Medical Center	Amy Cowling	(440) 329-7804
Fairview Hospital, Perinatology	Marcia Fritz	(216) 476-7828
Firelands Regional Medical Center	Dee Dee Keckler	800- 342-1177
Hillcrest Hospital	Jackie Pratt	440-312-0150
MetroHealth Medical Center	Shannon McCartney	(216) 778- 4761or 4936
Southwest General Health Center	Christine Van Cucha	(440) 816-8035
University Hospitals Westlake Medical Center, Radiology	Dianne Dugan	(440) 250-2092

CLINICAL FACILITY STAFF/CLINICAL LIAISON

Clinical facility staff are representatives of the Diagnostic Medical Sonography Program. Students should understand that patient needs and rights are always the priority as this may limit educational opportunities. The clinical facility staff are employed by the clinical facility and are required to fulfill responsibilities of the facility. As time or situations permit, the clinical facility staff provide instruction/assistance to the student. The clinical facility designates one of their staff to be a student liaison. This liaison acts as an intermediary between the college and the facility. The clinical facility staff oversees student activities and evaluates student performance with the direction of the liaison.

The program faculty and students are guests at the facility and must function within the realm that the facility permits.

The clinical facility staff and the clinical liaison have disciplinary power in the interest of the facility, patient and program.

CLINICAL OBJECTIVES

The following are the goals and clinical objectives for all assignments to clinical education. All student experiences will be supervised by an ARDMS Registered Sonographer.

The clinical objectives are:

- A. To improve the student's scanning abilities.
- B. To enhance the student's ability to recognize normal and abnormal sonographic patterns.
- C. To improve the student's ability to correlate clinical symptoms to sonographic findings.
- D. To develop good communication skills with members of the health care system and patients.
- E. To improve the student's proficiency in proper handling and care of the acutely and chronically ill patient.
- F. To promote independence and initiative in the student so that they can increase their self-confidence.
- G. To permit and cultivate in the student the ability to organize their duties and responsibilities.
- H. To develop the student's ability to be an efficient, cost effective member of the health care system.

CLINICAL EXPECTATIONS

The student will:

- A. have all assigned evaluations and competencies completed.
- B. submit clinical competencies and evaluations as completed to the Program Director or Clinical Coordinator.
- C. submit clinical records of cases completed, assisted, or observed at the end of each month.

- D. take responsibility for having time sheets signed each week.
- E. utilize the protocol requirements found in the handbook during their clinical education.
- F. take responsibility to have all competency and evaluation forms available for clinical staff.

COLLEGE CATALOG

The LCCC College Catalog contains a vast amount of information regarding services available to students, policies of the college, courses offered, and many other important facts regarding the college. The current catalog is only available from the LCCC website at <http://catalog.lorainccc.edu/> Each Diagnostic Medical Sonography student is encouraged to download a copy of the catalog. Included among the many items of interest to students and available in the catalog are:

General Education Outcomes	Course Withdrawal Procedures
Faculty Directory	Substance abuse and Gambling
Disability Services	Discrimination
Academic Dismissal	Financial Aid and Scholarships
Forgiveness policy	Individualized Learning Support Center
Sexual Harassment	Student Records Policies

COMMUNITY SERVICE

Students will be required to participate in a community service project during the fall or spring semester of the second year in the program. The project will be related to sonography or the medical field.

CONFLICT RESOLUTION / LINE OF COMMUNICATION

In the Division of Allied Health and Nursing, there is a line of communication students are expected to utilize when attempting to solve problems, offer suggestions, complain, get questions answered, etc. This line of communication begins with the student's clinical instructor(s) and proceeds as follows until the situation is resolved or the question is answered:



Faculty offices are located in HS 223 (second-floor office suite). All faculty members have posted office hours indicating when they are available to students on a walk-in basis. In addition, faculty will schedule appointments for times outside their regular office hours. To make appointments with faculty, please contact them in person. The DMS, Clinical Coordinator, Program Director and the Dean of the Division of Allied Health and Nursing are available for walk-in appointments as their schedules allow; however, students are encouraged to arrange an appointment with either of them. Problems which cannot be resolved at this level will be referred to follow the campus policy as outlined in the College catalog.

Students are expected to follow this line of communication. If, at any time it is found that a student has “by-passed” a person on this line of communication (i.e., Clinical Instructor), they should expect to be sent back to talk to the person they by-passed, before their request, comments, etc., will be considered by any person higher on the line of communication.

CONFIDENTIALITY POLICY

It is imperative that the student maintain confidentiality regarding all aspects of patient care. This includes talking about patients in public areas (elevator, cafeteria, restrooms) in the hospital, and talking about patients outside of the hospital. Students may be required at some clinical facilities to attend a HIPAA /Orientation course and sign a confidentiality statement.

Confidentiality also involves not discussing the patient's physician, the patient's personal life, or even acknowledging that a person is a patient or under medical care.

Any patient studies to be used by the student from a clinical facility (such as interesting case studies) must have **all patient identification removed prior to removal from the facility**. An interesting case approval form must be signed by a clinical instructor/liaison of the facility verifying all patient information has been removed.

Students should realize that violation of patient confidentiality can result in being dismissed from this program, and possible federal fines and lawsuits.

Students are also prohibited from accessing or requesting a staff member of a clinical facility to access patient records (including personal or family medical records) that is not consistent with an ordered exam or case study report. Any attempt or request to attempt will result in the student being dismissed from the clinical facility for the remainder of the day and the next clinical day (the time will be made up at the end of the semester). The student will receive a deficiency notice and an official reprimand will be placed in their permanent program record. A second attempt will result in the student being removed from the clinical facility and dismissed from the program.

If a student accesses patient records (including personal or family medical records) that are not consistent with an ordered exam or a case study report, the student will be removed from the clinical facility and dismissed from the program.

If student wishes to access their own personal medical records or the medical records of his or her minor child/children, the student is required to follow the facility procedure for obtaining medical records outside of their clinical time.

CONTINUED PROFICIENCY

Students are expected to demonstrate continued and satisfactory performance in clinical situations and demonstrate satisfactory proficiency of *previous examination competencies*. Failure to demonstrate continued proficiency or refusal to perform exams for which the student has completed a competency, will result in a deficiency notice being issued and the previous completed competency will be voided. The student will be required to perform and satisfactorily pass the proficiency again. Following a clinical deficiency, if the clinical issue is not resolved and additional clinical evaluations are unsatisfactory, the student will receive a clinical failure and corresponding course failure.

COURSE WITHDRAWALS

The last day to withdraw from a regularly scheduled semester course is Friday of the twelfth week of the semester (eighth week of summer semester). A student who withdraws from an Allied Health and Nursing Division clinical course will be required to submit a Withdrawal Status Report Form from the course instructor to the Records Office. This form is initiated in the Records Office and reports if the student was passing or failing the course at the time of withdrawal. If the student was failing a clinical course, the failure counts as if the student received a failing grade in the course for purposes of course repetition/program continuance and grading policies. If the student was not failing, the student may repeat the course and begin the technical sequence of course again the following year, on a space available basis according to the re-entry policy.

DIGNITY & RESPECT

Students are expected to treat all persons they contact in the course of their education and experiences with the utmost in dignity and respect. Many different types of persons, personalities, disabilities, cultures, religions, economic backgrounds, sexual orientation, habits, opinions and prejudices, races, ages, genders, political beliefs, etc. will be encountered by the student. Personal reactions to these may be positive, negative or neutral, and may at times be quite strong. While this is neither good nor bad, students must maintain a professional demeanor at all times. Your personal reaction is valid, in that your reaction signifies recognition of some sort of personal “truth” for you. However, you represent this program, and ultimately our field and you must separate your personal and your professional reactions. Despite any positive or negative emotional reaction you may have to a person or situation, your job is to react professionally, with dignity and respect. The faculty would always encourage you to talk to them about any strong reactions you may have, as it represents a real opportunity to you to change your perspective, and to learn something about yourself and the world.

DEFICIENCY NOTICE

Deficiency Notices are used to forewarn a student that his/her performance is not consistent with the expectations and goals of the Diagnostic Medical Sonography Program or an infraction of a program policy. Deficiency Notices can be given by program faculty to notify students and discuss what is needed to correct the deficiency. Failure to correct the issue identified in the deficiency notice may result in failure of the course and dismissal from the program. Deficiency notices may be given at any time during a semester.

Reasons for deficiencies include *but are not limited to*:

- Failure of clinical competencies
- Course average below 78%
- Unsatisfactory clinical evaluation
- Absenteeism and/or tardiness
- Unprofessional conduct
- Unsafe practice
- Inability to perform exam(s) in which student previously achieved competency
- Failure to complete clinical or laboratory assignments
- Failure to correct deficient area(s) previously identified
- Lack of cooperation / arguing with clinical staff, laboratory staff or program faculty

DISMISSAL FROM THE SONOGRAPHY PROGRAM

Students may be dismissed from the program for violations: of the Student Code of Conduct, the Academic Integrity Guidelines; Code of Ethics for the Profession of Diagnostic Medical Sonography; academic dishonesty; failure to complete assigned clinical competencies for a the semester; failure to meet the appropriate level of development on the Generic Abilities Behavioral Criteria; plagiarism; repeated absences/lateness; more than one Sonography course failure (grade of less than “C”) in either year of the program; unsafe clinical practice; failure of final lab practicals, violation of HIPAA policies or an Unsatisfactory/Does Not Meet Objectives Clinical Evaluation. This is not necessarily an all inclusive list, nor is it binding based on consideration of individual circumstances.

Students receiving a clinical failure or a single course failure will need to follow the sonography readmission procedure, pending availability of a clinical site. Students failing two sonography courses, failure due to academic dishonesty, or violation of patient confidentiality (HIPAA) will not be allowed immediate re-entry into the program. These students will not be eligible to re-apply to the program for a period of five years. If re-entry after the five year period is desired, the student must follow the readmission procedures.

EMERGENCY CALLS

Emergency calls for students on campus are handled by the LCCC Campus Services Office. If an emergent situation occurs that requires the student’s immediate attention, the student should instruct them to call the clinical site. (please see telephone policy)

FORTY-HOUR WEEK FOR STUDENTS

According to the *Standards and Guidelines* of JRC-DMS, a student may have only a total of 40 hours per week of combined classroom, college laboratory, and clinical experiences.

No student may exceed this total for any reason. Any hours which must be made up due to illness or disciplinary action cannot exceed this 40-hour per week limit. If more hours must be made up than can be accommodated during the regular semester schedule, the student must make arrangements with the instructor/Program Director to make up hours at the end of the semester during Reading Days and/or exam week.

GRADING POLICIES

Individual course grading policies may vary. Each course of the Diagnostic Medical Sonography Program will provide information in the course syllabus on how grades will be determined. All sonography courses use the following grading scale: A=100-93%; B=92-85%; C=84-78%; D=77-70%; F= Below 70%. Students can monitor their grades throughout the semester on ANGEL, the college's learning management system. Grades cannot be given over the phone. Each course will provide the student's overall grade prior to the withdraw date for the term.

A grade of "C" or better is required in all Diagnostic Medical Sonography and Math/Science courses to be able to continue in the program. A student may fail (defined as less than a "C" grade) one clinical Diagnostic Medical Sonography Course (a program course with a clinical component included) in the first year of the program and repeat it, or may fail and repeat one clinical Diagnostic Medical Sonography course in the second year of the program. However, the student will **not** be permitted to continue in the program sequence until the clinical course is completed with a grade of "C" or better. Because courses in the technical/core part of the program are only offered at specific times each year, students will usually not be able to repeat the course until the following year. The student may be able to continue the program sequence the following year, providing space is available in the program. This cannot be guaranteed. (See "Re-entering DMS Program" Policy)

In the event a student receives a grade of "D" for a non-clinical course of the program (SONO 111, 122, SONO 221, SONO 222, SONO 226), the student will be allowed to continue in the program sequence with Program Director approval. However the student will **not** be permitted to graduate from the program, and thus not eligible for national certification exams until the course with a "D" is repeated and passed with a grade of "C" or better. A student who receives a grade of "F" in a non-clinical course will not be permitted to continue in the program sequence (clinical and non-clinical) and petition for re-entry into the program the next time the course is offered as described above. (See "Re-entering DMS program" policy)

A second course with a grade of "D" or "F" (clinical or non-clinical) in either year of the program causes the student to be dismissed from the program.

GRADUATION REQUIREMENTS

- Completion of all math/science courses with a "C" or above
- Completion of all support course work
- Completion of all sonography courses with a "C" or above
- Satisfactory completion of all clinical/lab requirements
 - o Clinical evaluations
 - o Clinical Competencies
 - o All lab/open lab assignments
 - o Passing of all lab protocol tests and lab practicals

GUESTS AND CHILDREN IN CLASS

Children or guests are not allowed to attend classes, class labs or clinical experience.

Guests may be used for open lab experiences provided a volunteer waiver form is signed and on file.

Children under 10 years old may not be used as scanning subjects.

HEALTH & PHYSICAL REQUIREMENTS

A physical health examination by a physician is required prior to the entrance or re-entry into an Allied Health and Nursing Program. This form will be made available at the time of acceptance to the first clinical course. This examination must be completed no earlier than **three (3) months prior to acceptance into the program** and turned in to the Allied Health & Nursing Office.

The following reports **must** accompany the health form:

1. Proof of Varicella immunity
2. Two-Step TB Mantoux results. **(Tine-tests are NOT acceptable.)**
 - If a student is a positive reactor to the Mantoux test, then a chest x-ray is required.
 - Upon review of a health examination, a statement from a physician may be requested for purpose of clarity.
3. Diphtheria, Polio and Tetanus immunization documented within the past 10 years.
4. An MMR vaccine if Rubella and/or Rubeola screening do not indicate immunity.
5. Complete Blood Count
6. Urinalysis
7. Serology
8. Any other requirements as listed on the College physical examination form.
9. Hepatitis B Vaccine (If a student chooses not to receive this vaccine, they must sign their refusal on the health form.) (College Catalog, <http://catalog.lorainccc.edu/Enrollment/Program+Admissions+Requirements/>)

If a physician believes that other laboratory tests are necessary to evaluate a student's overall health, they can be ordered at the physician's discretion.

NOTE: Health care professionals are considered "high risk" for Hepatitis B because of the possibility of contact with blood products.

Students are advised to keep a copy of the health form and test results as they may be needed to show for verification at some clinical facilities. Once the forms are turned in to Allied Health & Nursing Office and approved, they are sent to the Student Records Office. If students need a copy of their physical forms, they will have to request it from the Student Records Office. Thus, it is easier to save a copy or two in the beginning.

A one-step Mantoux TB test will also be required of all enrolled allied health & nursing students at the beginning of fall semester. These are provided on campus by the Lorain County TB Clinic. However since second year sonography students are full-filling clinical requirements when these are offered on campus, they are encouraged to obtain these during the break between summer and fall semesters. These can be obtained from their physician or going to Lorain County TB Clinic. Some facilities may require a TB test within 6 months and receipt of results prior to participating at the clinical facility.

IDENTIFICATION CARDS FOR STUDENTS

The library card and student identification (ID) card are one and the same. Besides being able to use the card for taking out library books, internet access to the library and used for identification purposes at almost all student activities and for a discount at such events.

These ID cards are issued free of charge at the Library. A student must present a copy of his or her class schedule in order to receive one. In order for cards to be valid, they must be updated in the Library each semester, preferably at registration time or at the beginning of the semester by showing one's class schedule.

A lost card should be reported immediately to the Library at which time a duplicate card will be issued for a fee.

NOTE: Diagnostic Medical Sonography students are required to have a second ID card (made for \$2.00) which is worn for security reasons at the hospitals. (See Dress and Uniform Accessories, page 30, and clinical site orientation of the specific facility pages 43-50 of this handbook.)

INCLEMENT WEATHER - (CLOSING OF COLLEGE)

When classes on the Lorain County Community College campus are canceled, and the college is closed because of inclement weather, all clinical laboratories scheduled to meet during the closed times are canceled. Decisions regarding College operations are made on the general status of the overall service area. In the event a storm arrives in the early morning hours prior to the start of classes/events, a decision to close the campus will be made prior to 6 a.m. whenever possible. A decision to close the campus at that time will be made with regard to day classes and events. A decision to close campus for evening classes and/or special events, e.g., performances at Stocker Center, will be made prior to 1 p.m. whenever possible. Announcements about Lorain County Community College closing are transmitted on the United Press International wire which serves all AM, FM, and TV stations in the Northeast Ohio area. Students may also sign up for the college's emergency text message service. Emergency text messages can be sent to their mobile phone. Once a decision is made to cancel classes or close the campus, a text message will be sent to subscribers of LCCC Alerts informing them of the status of the campus. Sign up for the service at www.lorainccc.edu/alerts

When severe weather occurs in the area, students are advised to first consider the conditions in their immediate area relative to traveling safely. Conditions may vary significantly within the service area of the College. Students are ultimately responsible for their own safety and travel decisions, if the student feels the conditions in the area are too dangerous to drive, he/she should delay driving until conditions improve. **DO NOT RISK YOUR SAFETY TO GET TO CLINICAL.** Coursework is also the continuing responsibility of the student. An absence from a class or clinical for any reason, does not exonerate the student from their full responsibility to complete all prescribed coursework or from the attendance policy. If inclement weather should occur on a clinical day, the student will be responsible for the clinical time for the semester. The student should contact the clinical facility and clinical instructor according to the attendance policy in the event an absence/tardiness due to weather conditions.

(College Catalog, <http://catalog.lorainccc.edu/Campus+Security/EmergencyWeatherClosings.htm>)

INCOMPLETE GRADES

An incomplete grade ("I") may be given under special circumstances at the discretion of the instructor when the student is not able to complete course requirements. An incomplete grade for clinical competencies may be given when situations at the clinical facility, such as low case volume, prevent the student from obtaining the assigned clinical competencies; this type of situation requires verification by the clinical facility and program faculty. Students should know that an incomplete grade will not be given because the student did not attempt to complete the competencies or did not have time to complete course assignments.

If a situation occurs such as that described above, an incomplete grade contract must be arranged *before* grades are issued for the semester. This incomplete grade contract must be completed before a final grade for the course is given. Failure to complete the competencies within the designated time may result in failure of the course.

LABORATORY FACULTY

The laboratory instructional assistants (LIAs) are adjunct (part-time) faculty of the Diagnostic Medical Sonography Program and employed by the college. They provide instruction/assistance, identify and help resolve problems the student has performing open laboratory exercises and evaluate student progress through the grading of student open lab challenges and weekly lab activity evaluations. They are also responsible making sure students honor their assigned times, the safety and interest of other students, safety of volunteers and the laboratory equipment. The LIAs have disciplinary power and may give deficiencies and report issues to the program director for violations of program policies, poor performance in the lab, risks to equipment function/safety or risks to safety of the volunteers and other students.

LIABILITY INSURANCE

Student liability insurance is automatically charged when registering for Sonography I. Returning students will be billed separately. Clinical agencies require that students carry liability insurance. Students *should not purchase* their own liability insurance.

PLEASE NOTE:

The liability insurance covers only activities in the clinical area performed as a student. Individuals who are hired for pay to work at clinical agencies, urgent care centers, doctors' offices, etc., as staff are *NOT* covered by their student liability insurance purchased through the College.

MEDICAL/HEALTH/PERSONAL INJURY INSURANCE

All students are urged to have their own medical insurance coverage. Some clinical facilities **require** that students show proof that they have their own medical insurance coverage in order to participate in the clinical experience at that facility and are prohibited from the facility if they do not carry medical insurance. Students who are injured in the clinical agency must fill out an incident report; they should be instructed to see a physician of their choice. The student is completely responsible for the cost of subsequent medical and surgical care. Students are not employees of the hospital; therefore, are not covered by workers' compensation. Hospitalization insurance at a student group rate is available for full-time students. Brochures can be located at the Library/Community Resource Center (LC 106).

MATH REQUIREMENT

Students should be aware that the ultrasound physics and instrumentation courses require a comprehension of performing scientific formulas and algebra equations. It is suggested that students who have not had a math course over a year that they may find it helpful to review algebraic equations, exponents, scientific notation, base 10 logarithms and most importantly, the metric system and metric conversions. It is strongly suggested that if students have not had a math course for longer than five years that they take a refresher math course for review. Mathematics Tutors are available for assistance year round in the College's Learning and Resource Center.

MAKE-UP CLINICAL HOURS

Students are expected to verify and post their clinical hours in advance with the clinical liaison at their assigned clinical facility. Students are also expected to make up any missed clinical hours prior to the end of the semester. Upon return to the clinical site after an absence, the student should arrange a schedule to make up missed clinical time with the clinical liaison. Students are responsible to make-up any clinical time missed due to holidays or inclement weather occurring during the fall and spring semesters. Missed clinical time can be made up throughout the semester as scheduling permits. This may be done through extended days or adding a day or portion of a day in the regular schedule. However, this is subject to caseload and clinical facility availability and subject to the approval of clinical liaison and program faculty. The make-up time should be made up in at least 4 hour segments. If the make up time is less than 4 hours, then the make-up time should be completed equal to the time owed. The student is responsible for making up the time and may have to arrange their personal schedule to accommodate availability of the facility. If time cannot be made up during the semester, the student may make up time during reading days or final exam week. Failure to make up missed clinical time by the last day of the semester may be subject for receiving an incomplete or a failing grade for the semester.

Students are strongly encouraged to make outside appointments so as not to interfere with the clinical or class schedule. The program recognizes that situations may not always allow for this during regular business hours and an adjustment in the clinical schedule is necessary. However, the student is responsible for making up any missed clinical hours as assigned for that semester. In such cases, the clinical liaison should be notified in advance of any foreseen changes to the posted schedule. Schedule adjustments should be temporary and limited. If situations arise that require frequent adjustments, a permanent change in the clinical hours should be discussed with the clinical liaison and program faculty. The program faculty reserves the right to approve or decline any long term or permanent change in clinical hours based on the presence of qualified clinical instructors and/or available clinical experiences. Failure to obtain approval from the clinical liaison of schedule adjustments in advance and/or frequent adjustments will result in disciplinary action.

PATIENT EXPERIENCE

All first-year DMS students will be assigned to a hospital/agency for observation which includes patient care and working in the hospital atmosphere. During spring semester, students will be assigned for one day each week. The purpose of these hours is to practice patient care and other aspects of a sonographer's duties besides performing patient exams. Students will be given specific tasks to be met during this time. These assignments are arranged through the Clinical Liaison and Clinical Coordinator. As students' scanning skills develop and they progress through the program, students will be expected to perform patient exams and provide patient care under the supervision, guidance and assistance of a staff sonographer. As students near the end of the program, it is expected that the need for assistance will decrease and the student is able to perform patient care and exams independently.

PREGNANCY POLICY

A student who becomes pregnant while enrolled in the Diagnostic Medical Sonography Program must inform the Program Director in writing as soon as possible if she has been given any limitations or restrictions by her physician. In such situations, a letter must be provided from the student's physician stating those limitations and if the student is able to perform clinically during her pregnancy. After delivery, a release note must be provided from her physician, stating when the student is permitted to resume normal activity. The student must make arrangements to make up for any missed clinical time or course work immediately upon return.

PROBATION

Students may be placed on clinical and/or theory probation by the faculty within the Division of Allied Health and Nursing. This probation is for minimal achievement in the health careers specialty, and is a warning that improvement is necessary immediately. It is a disciplinary measure used for Program Policy infractions, unsatisfactory evaluation (other than at the end of the semester), multiple deficiencies or excessive absences. (Notification of probation indicates that one of the above has occurred and a suspension from clinical and a suspension from the program could result, if a further infraction occurs.) If immediate improvement does not occur, a student will be dismissed from the program.

PROFESSIONAL SOCIETY PARTICIPATION

Participation as a member of national ultrasound organizations such as the Society of Diagnostic Medical Sonographers (SDMS) and/or the American Institute of Ultrasound in Medicine (AIUM) is not required of students, however it is highly recommended. The SDMS & AIUM offer reduced rates and scholarships for student members while providing the benefits of membership. The students are also encouraged to attend local ultrasound society meetings in Lorain and/or Cuyahoga counties. Students should be aware that attendance to local meetings will be a requirement of some of the Sonography courses and are required to pay for admission to the meetings (\$10). Additional information regarding the AIUM/SDMS memberships or the local meetings is available through the program director.

Students will be required to attend any sonography meeting held on the LCCC Campus. Second year students will also be required to attend the Ohio Medical Ultrasound Society held in Columbus, Ohio during spring semester, pending satisfactory clinical performance. Students may be required to pay registration fees to these meetings. Web addresses for the SDMS: <http://www.sdms.org> ; AIUM: <http://www.aium.org> ; the Northeast Ohio Ultrasound Society at <http://www.neous.org> and the OMUS: <http://ohioultrasound.org/default.aspx>

PROGRAM EVALUATION

Program assessment is performed through various internal and external methods to monitor program effectiveness. This is accomplished through various surveys and evaluations. Each program at LCCC is required to perform an annual program review for the college every five years. The diagnostic medical sonography program also performs a review for the program accreditation through the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) and the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The results of the various evaluations are used to identify strengths and weaknesses of the program.

Students play an important role in the evaluation process. Students are asked to evaluate various aspects of the program. These include faculty evaluations; clinical facility evaluation; course evaluation; resource evaluations; end of program evaluations; and post-graduate evaluations. Additionally, the program surveys employers of graduates, the program faculty and evaluates ARDMS exam results of the graduates.

The results of the evaluations/surveys, except faculty evaluations, are summarized. Limitations/concerns of the program are identified, possible solutions and a course of action is presented to the program advisory committee. Faculty evaluations are scored by computer services and a typed summary of the evaluations are given to the faculty member. The faculty evaluations are used as a portion of the faculty's annual performance review.

Faculty evaluations by students – Full-time faculty are required to have student evaluations done in at least three didactic courses for each academic year. These evaluations evaluate the instructor's abilities and are used as a portion of the faculty's annual performance review. Adjunct faculty for didactic, clinical and college laboratory are also evaluated by students. Students are given the faculty evaluations near the end of the course.

Clinical facility evaluation by students – Students perform a clinical evaluation of the all clinical facilities they were assigned/visited at the end of each semester. A typed summary is provided to that facility each year.

Course evaluation by students – Students are asked to complete a course evaluation at the end of each core sonography course. These evaluations are used to assess the course content, course activities as well as library resources, financial aid and registration.

Resource evaluation by students – Students are asked to evaluate the programs resources. This evaluation is done near the end of the program completion and may be combined with the "End of Program Evaluation."

Laboratory Activity Evaluation by faculty – Lab assistants will evaluate student performance during open lab activities weekly.

Generic abilities professional behaviors assessment – Used for academic, laboratory and clinical experiences. Students are evaluated midterm and at the end of each semester by program faculty. Failure to meet beginning level criteria at time of entry, Developing level at any time during the program or Entry level criteria by the beginning of the final semester may be grounds for recommendation for dismissal from the program. Supporting evidence that a student lacks a particular personal or professional characteristic and/or ability required will accompany the recommendation for dismissal. Recommendations for dismissal based on lack of professional behavior development are extremely serious as patient safety, professionalism, life-long learning, ethics and honor are core values upheld by the faculty and profession.

End of program evaluations – Evaluations are given to the students of the graduating class near the end of their final semester.

Post - graduate evaluations – Evaluations are mailed to graduates of the recent graduating class six months after graduation.

Employer evaluation of graduates – Evaluations are mailed to employers of the recent graduating class six months after graduation.

ARDMS Certification Exam Results – The program tracks graduates' success rate of the ARDMS certification exams. The program annually requests a composite breakdown of graduates compared to the national aggregate.

QUALITY OF WRITTEN MATERIALS

Correct spelling, good legibility of handwriting, appropriate grammar and sentence structure is expected on all written materials at all times. All assignments are expected to be completed as instructed and submitted on time. Instructors have the right to deny credit or deduct points from assignments of improper structure or late assignments.

Plagiarism will not be tolerated. In any way, copying and using a complete work or with minimal changes (either in wording or images) will be considered plagiarism and given a ZERO. All sources must be referenced. All cited references should be used in the presentation/paper. Information for the presentation/paper should be balanced among references. Statements should be rephrased in your own wording and the reference cited after it appears in the text in parenthesis (Last name, year). All statements that are not your own thought should cite the source immediately after the statement. Direct quotes should be used sparingly. When using a direct quote less than 40 words, the quotation should be in double quotation marks followed by the above format but include the page number after the year (Last name, year, page #). If direct quotes are more than 40 words, block quotations should be used. The quote should begin on the next line indented 5 spaces from each side of the regular text without quotation marks. Each line of the quotation is then indented in the same manner, double spaced.

The APA Publication Manual can be referred to for clarification regarding quotes and reference citations). Students are encouraged to use the APA manual, LCCC Librarians or internet sources such as The OWL at Purdue or University of Wisconsin for formats. <http://owl.english.purdue.edu/owl/resource/560/01/> The references should be on a separate page titled References no underline or quotation marks but should be centered at the top of the page. Each reference entry is double spaced in alphabetical order, the first line of each reference is not indented but all lines after the first line are indented.

RE-ENTERING THE DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM

Single course failure

Persons who have failed one sonography course and wish to re-enter the Diagnostic Medical Sonography Program will be evaluated on a case-by-case basis and re-admitted contingent upon space available in the clinical area. This cannot be guaranteed. Students must see the Allied Health and Nursing Counselor, Joe Burkart (in the Counseling Office), in order to initiate re-entry into the program. The College cannot guarantee the student will be re-admitted to his/her previous clinical agency. Students must provide evidence of meeting the health requirements for program entry prior to any readmission. Students re-entering after prior successful completion of SONO 131 must meet with the Program Director the semester prior to re-entry and arrange to satisfactorily complete the open lab activities of SONO 131. Additional requirements may be necessary contingent upon the reasons for prior dismissal and the sonography course of re-entry. This will be addressed on a case-by-case basis to allow the student to reclaim their technical skill level equivalent to the expectations and skills of that point in the program. Due to the nature of the SONO 131 course, it is required that students re-entering immediately after the SONO 131 course (summer semester) arrange for completing the re-entry requirements for possible available clinical positions. However, re-entry cannot be guaranteed unless positions become available. Re-entering students must complete all requirements in the Diagnostic Medical Sonography Program, regardless of whether or not previous clinical hours and competencies were completed and credited to the student.

Students who do not resume the program the following year will be required to reapply to the program. Upon re-entry, the student will be required to audit any core sonography courses in which a passing grade was received, satisfactorily completing all course work and then retake the failed course.

Two course failures, clinical failure or academic dishonesty

Students who wish to re-enter the program following two course failures, clinical failure or academic dishonesty must follow the sonography procedure for readmission:

The student must observe a five year waiting period before he/she is eligible to re-apply, and submit a letter to the program director for readmission. The letter must identify the reason for course failure, explain any extenuating circumstances surrounding the failure and describe what goals or changes the student has made to guarantee future success. The student should include a copy of their unofficial transcripts with the letter. The request will be reviewed by the program faculty and the student will be notified of their eligibility to re-apply to the program at that time.

REPETITION OF COURSES

A student may fail (defined as less than a “C” grade) one clinical Diagnostic Medical Sonography Course in the first year of the program and repeat it, or may fail and repeat one clinical Diagnostic Medical Sonography course in the second year of the program. However, the student will **not** be permitted to continue in the program sequence until the course is completed with a grade of “C” or better. Because courses in the technical/core part of the program are only offered at specific times each year, students will usually not be able to repeat the course until the following year. The student may be able to continue the program sequence the following year, providing space is available in the program. This cannot be guaranteed. (See “Re-entering DMS program” Policy)

In the event a student receives a grade of “D” for a non-clinical course of the program (SONO 122, SONO 221, SONO 222, SONO 226), the student will be allowed to continue in the program sequence with Program Director approval. However the student will **not** be permitted to graduate from the program and thus not eligible for national certification exams until the course with a “D” is repeated and passed with a

grade of “C” or better. A student who receives a grade of “F” in a non-clinical course will not be permitted to continue in the program sequence (clinical and non-clinical) and petition for re-entry into the program the next time the course is offered as described above. (See “Re-entering DMS program” policy)

A second course failure in either year of the program causes the student to be dismissed from the program.

SKILLS ASSESSMENT

Students are tested throughout the program for skills assessment in patient care, patient communication and scanning skills through laboratory practicals, clinical competency tests and clinical evaluations. Failure to demonstrate proficiency and continued progress in these areas will result in failure of the course.

SMOKE FREE ENVIRONMENT

Lorain County Community College is a smoke-free environment. Smoking is prohibited in all campus buildings. There are designated areas outside the buildings for people who wish to smoke. State law requires that smokers must be 25 feet away from building entrances. Many clinical sites prohibit smoking anywhere on the grounds of the facility. Failure to adhere to College or clinical facility policies relating to smoking will result in disciplinary action.

STUDENT EMPLOYMENT AT A CLINICAL FACILITY

Students who may be hired at a clinical facility prior to graduation may do so provided that:

1. Hours and obligations to the Sonography program come first and foremost.
2. The employment hours do not interfere with the regularly-scheduled hours of the program; and
3. No time or clinical competencies may be used for program requirements that were obtained as a paid employee of the facility.

STUDENT INJURIES

Should a Diagnostic Medical Sonography student be injured while in the clinical site, an incident report should be filled out at the facility and the student instructed to see a physician of his/her choice. The student should be aware that he/she will be responsible for all medical expenses incurred and may need to consult with their medical carrier prior to receiving any medical treatment given at a clinical facility. While a student cannot be forced to seek medical treatment, it should be noted on the incident report that the student was instructed to do so. In addition, the injured student must notify the Diagnostic Medical Sonography faculty regarding the injury so that the incident may be recorded in the student's file on the LCCC campus.

STUDENT MEETINGS WITH FACULTY

Timely, required meetings are held to help students plan their futures and to resolve any problems involving the student's education. Students are encouraged to see the Program Director as soon as possible regarding problems that may interfere with his/her learning.

Each first-year student will meet with the Clinical Coordinator in the Spring semester.

Each second year student will meet with the Program Director in the Fall semester to discuss clinical issues and academic issues, and meet again in the Spring semester for an exit interview.

Full-time faculty are available for meeting with students during their posted office hours (a minimum of 5 hours per week). Office hours are announced in class at the beginning of the semester, and are available in the division office (HS 223). Part-time instructors are not required to have office hours; however, students are encouraged to make arrangements with them to meet before or after class.

Faculty may also be contacted by telephone to arrange counseling/tutoring sessions. Academic counseling is available by contacting Joe Burkart, the Allied Health & Nursing Counselor, in the Student Services area. Those students who seek personal help are encouraged to meet with the Program Director or go to Women's Link in the Student Services area, ext. 4035.

STUDENT RECORDS

Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 (Buckley Amendment) provides student access to information about themselves, permits challenges to the information, and limits the release of such information about students without the student's explicit written consent. LCCC is committed to the Act in its entirety. Copies of procedures can be obtained from the Admission and Records Office.

Access to Student Records

A student's record, with certain exceptions including directory information as noted below, will not be released without prior written consent of the student. See the current College catalog for details.

Disclosure of Education Records

LCCC will disclose information for a student's educational records only with the written consent of the student, with certain exceptions. Exceptions are specified in the current College catalog.

Directory Information

LCCC designates personally identifiable information contained within the student's education record as "directory information" so that the College may, at its discretion, disclose this information without the student's prior written consent. This information is student name, home address and telephone number, date of birth, major field of study, participation in officially recognized activities, current enrollment status (including dates of attendance, full or part time, withdrawal status). A student may restrict the publication and release of this directory information by filing a written request with the Records Office. In addition, the following information is always considered releasable: previous dates of attendance, degrees and awards received (to include honors), previous educational agencies or institutions attended. The complete policy regarding the collection, retention and dissemination of information about a student is available in the Records Office.

Students should keep the College Records Office, secretary in the Division of Allied health and Nursing Office, and Diagnostic Medical Sonography Program Director informed of any changes in their name, address or phone number.

Record Retention Policy

LCCC retains the official academic record (transcript) of enrollment and credit earned at LCCC for 100 years after the student's last enrollment at LCCC. Three years following any term of enrollment, the student's transcript is the final, indisputable record of academic achievement.

Program Records

Students wishing to have program records copied must submit a written request to the Program Director, 24 hours in advance.

STUDENT VACATIONS

All students are expected to arrange their vacation between semester breaks, Christmas, and end of spring and summer sessions. Students should be aware that the summer session for the Sonography program is 10 weeks; Vacations taken during semester would be considered an unexcused absence.

See the Attendance Policy and the Unexcused Absence/Tardiness Procedure.

SUBSTANCE ABUSE, ALCOHOLIC BEVERAGES, AND GAMBLING

The possession or use of alcoholic beverages on the premises of Lorain County Community College or at an activity sponsored by the College, is strictly prohibited. A student under the influence of alcohol while on campus will be subject to disciplinary action governed by the "Code of Student Conduct". Lorain County Community College supports and promotes a drug-free campus environment. In accordance with the Drug-free Schools and Communities Act Amendment of 1989, it is a violation of college regulations and pertinent state and federal statutes to unlawfully manufacture, possess, use and/or distribute illicit drugs and alcohol on the campus. Students expressing concerns about their use/abuse of substances will be offered a referral to a Student Development Office counselor, the Nord Family Mental Health Center professionals, or the Family Services Association of Lorain County professionals (all on campus). Because college laboratory models

professional behavior and outside volunteers are often used in laboratory exercises, a student in the laboratory with the smell of alcohol on their breath or presents intoxicated, will be dismissed from lab or open lab that day to prevent risk or injury to themselves or others. The student will be charged an unexcused absence, reported to the program director and further discipline. (*Code of Student Conduct and Campus Code of Conduct*, <http://catalog.lorainccc.edu/Campus+Policies/StudentConduct.htm>).

SUBSTANCE ABUSE – CLINICAL

If representatives from the College and/or the clinical site concur that the odor of alcohol is detected on the breath of a student suggestive of recent alcohol consumption, this would be considered a gross lack of professionalism on the student's part. The incident will be documented and the student sent home from the clinical site/college laboratory that day. This is done because the student is a potential risk *or could be perceived by clinical staff and/or patients as a potential risk*, even if there is no observable impairment of behavior. The Program Director will be notified at this time and the student will be charged an unexcused absence. If this occurs a second time, the student will be sent home again, and instructed to meet with the Program Director as soon as possible, before allowed to reenter the clinical site and charged an unexcused absence. If the student states that there has been no alcohol consumed, they may be advised to seek medical attention for the problem. If it occurs a third time, the student may not be allowed back to the clinical site and may receive a clinical grade of "Unsatisfactory."

GAMBLING

Gambling and games of chance of any kind are not permitted on campus. Lotteries and/or raffles or the sale of tickets for these are not permitted on campus. Violations of these regulations are governed by the *Code of Student Conduct and Campus Code of Conduct* <http://catalog.lorainccc.edu/Campus+Policies/StudentConduct.htm>

TAPING OF LECTURES

Taping of lectures or any type of class presentation should not occur without first *securing the consent of the instructor*. Most sonography lectures will be recorded and available on itunes and can be downloaded through the LCCC website.

TELEPHONE NUMBERS - LCCC

Voice mail available 24 hour, 7 days a week for LCCC Divisions and Faculty

Local General Number	(440) 365-5222
Toll Free	1-800-995-5222
Division of Allied Health and Nursing	ext. 4015 or direct (440) 366-4015
FAX	366-4116
Dr. Frank Ward, Division Dean	ext. 7180, or direct 366-7180

Diagnostic Medical Sonography Program Faculty

Craig Peneff, BSAS, RDMS, RVT	ext. 7189 or direct 366- 7189
Assistant Professor, Program Director	
Michelle Yuhasz, BSAS, RDMS, RVT, RDCS, RT(R)	ext. 7176 or direct 366-7176
Instructor, Clinical Coordinator	
Sonography College Lab	366-7883

TELEPHONES - CELLULAR PHONES - BEEPERS

Cellular phone signals interfere with vital patient equipment. Cellular phone use is *NOT PERMITTED* within or around the grounds of any hospital.

Beepers are not permitted at the clinical site. If an emergent situation occurs that requires your immediate attention that someone needs to reach you, instruct them to call the clinical site.

Students are discouraged from receiving or making telephone calls or texting at the clinical site during their assigned hours. Incoming calls should only of an urgent or emergent nature. Students are expected to make outgoing calls or text during their breaks.

Cellular phones and beepers must not disturb/disrupt class lectures. Texting during lectures will not be tolerated and students will be asked to leave class for the day and be given an unexcused absence. Cellular phones, beepers and personal digital assistants (PDAs) must be turned off and put out of sight during tests or be subject to penalty on the test score.

UNSATISFACTORY CLINICAL PRACTICE

Students who do not meet clinical objectives, or are felt to be unsafe will receive an unsatisfactory (U) or does not meet objectives (N) on their clinical evaluation. A “U” or “N” will result in a deficiency notice given to the student. Depending on the severity of the clinical deficiency (determined by the clinical staff and/or program faculty), the student may be given an opportunity to correct the deficient area. Failure of the student to correct the deficient area will result in receiving an Unsatisfactory (U) or does not meet objectives (N) in the clinical evaluation and an automatic failure (F) of the clinical course and dismissal from the program. Some issues such as an immediate threat to patient safety or violation of patient confidentiality (HIPAA Violation) will result in an immediate removal from the clinical facility, failure of the clinical course and dismissal from the program.

Clinical failure is a serious infarction and students must follow the procedure for readmission.

INFECTION CONTROL POLICY

GENERAL OBJECTIVE: *Blood and body fluid precautions consistently will be used for all patients by students in ALL programs*

I. BODY FLUIDS PRECAUTIONS

A. Gloves

1. Disposable gloves should be donned prior to initiating client care tasks involving exposure or potential exposure to blood or other body fluids to which universal precautions apply.
Gloves will be worn:
 - a. during all sonographic procedures.
 - b. when discontinuing intravenous therapy.
 - c. when working with blood or body fluid samples.
 - d. when handling items or surfaces soiled with blood or body fluids.
 - e. when handling soiled linen.
2. Gloves will be changed between each patient.

B. Masks, Eyewear, and Gowns

1. Masks and eyewear should be worn together or a face-shield should be used by workers prior to any situation where splashes of blood or other body fluids are likely to occur.
2. Gowns or aprons should be worn to protect clothing from splashes with blood or body fluids.
3. If large splashes of quantities of blood are present or anticipated, impervious gowns or aprons should be worn.

C. Handwashing

1. Hands and skin surfaces should be immediately and thoroughly washed if contaminated with blood, body fluids or potentially contaminated articles.
2. Hands should be washed prior to donning and after removing gloves.

D. Cleaning and Decontamination of Spills of Blood

1. All spills of blood and blood contaminated fluids should be promptly cleaned with EPA-approved germicide or a 1:10 bleach. The worker should wear gloves while following the procedure outlined below:

- a. Visible material should be removed with disposable towels. ***AVOID DIRECT CONTACT WITH BLOOD.***
- b. If splashing is likely, protective eyewear should be worn along with an impervious gown or apron.
- c. The area should be cleaned with the appropriate germicide.
- d. Soiled cleaning equipment should be disposed of in plastic bags.

E. Linen, Soiled With Blood

1. Soiled linen should be handled as little as possible and with minimum agitation.
2. Soiled linen should be bagged at the location where it is used.
3. Linen soiled with blood or body fluids should be placed and transported in bags that are impervious to leakage.
4. Gloves should be worn when handling contaminated linens/clothing.
5. Shoes (leather) may be brushed-scrubbed with soap and hot water to remove contamination.
6. Uniforms soaked through with blood must be laundered by the agency's facility.

F. Infectious Waste

1. Bulk blood, suctioned fluids, excretions and secretions may be carefully poured down a drain connected to a sanitary sewer.
2. All disposable equipment and supplies contaminated with blood and/or body fluids must be disposed in appropriate biohazardous containers.

G. Special Policies

1. Needles, Syringes and Other Sharps
 - a. Gloves will be worn when drawing blood or administering an injection.
 - b. ***Do not recap*** contaminated needles, syringes or other sharps.
 - c. Do not bend needles after use.
 - d. Do not remove needles from disposable syringes.
 - e. Reusable sharps, instruments and equipment should be returned for reprocessing to protect the environment from further contamination.
 - f. Disposable syringes must be discarded immediately in a protected disposer.
 - g. All other sharps must be discarded in a protected disposer.
2. Invasive Procedures (includes Surgery, Maternity, Cardiac Cauterization and Angiography)
 - a. Gloves will be worn for all invasive procedures.
 - b. Surgical masks will be worn for all invasive procedures.
 - c. Masks and protective eyewear will be worn during procedures likely to generate splashes of blood or other body fluids.
 - d. Gloves and gowns will be worn by personnel handling a placenta or infant until blood and amniotic fluid has been removed.
3. Laboratory
 - a. Blood and body fluids should be contained in a receptacle with secure lid.
 - b. Mechanical pipetting devices will be used.
 - c. All items listed under ***Body Fluids Precautions.***
4. Resuscitation Equipment
 - a. Because of the risk of salivary transmission of other infectious diseases and the theoretical risk of H.I.V. and H.B.V. transmission during artificial ventilation, disposable airway equipment or resuscitation bags should be used.
 - b. Pocket mouth-to-mouth resuscitation masks designed to isolate workers from contact with victim's blood, blood-contaminated saliva, respiratory secretions and vomitus.

II. AIRBORNE PATHOGENS PRECAUTIONS

A. Tuberculosis

1. Screening each year: All students enrolled in Allied Health and Nursing must participate in a yearly tuberculosis screening.
 - a. Mantoux (one step).
 - b. Chest x-ray, if Mantoux is positive.
- * 2. Each student will wear a particulate respirator mask when in direct contact with a client suspected of having or diagnosed with tuberculosis.
3. Students involved in transporting a client with suspected or diagnosed tuberculosis should apply the particulate respirator mask to the client.

B. Meningitis

1. Masks must be worn by health care providers in direct contact with a client suspected or diagnosed with meningitis prior to the completion of 24 hours of appropriate antibiotic therapy.
 2. Health care providers exposed without a mask to a client suspected or diagnosed with meningitis must follow up with the agency's infection control personnel for evaluation of the need for antibiotic prophylactics.
- * A particulate respirator mask filters out particles 1-5 microns in diameter.

Sources:

Guidelines for Prevention of Transmission of Human Immunodeficiency Virus and Hepatitis B Virus to Health Care and Public Safety Workers. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Atlanta, GA. (MMWR 1989; 38 [No. S-6], 1-37).
Prevention and Control of Tuberculosis in U.S. U.S. Department of Health and Human Services, Public Health Service, Center for Disease Control, Atlanta, GA (MMWR 1992; 41 [No. RR-5]).

Uniforms which are contaminated during body fluid spills at the clinical education center will be laundered by the clinical agency at no charge to the student.

GUIDELINES FOR BODY SUBSTANCE EXPOSURE IN CLINICAL SETTINGS

Student -- any person who is undergoing specific clinical instruction in an affiliating agency.

The students will be informed of the body substance exposure protocol by their instructor or by an educated specialist of the agency during the initial clinical orientation.

A body substances exposure occurs when body fluids, especially blood, are splashed on mucous membranes, penetrate open sores on the skin, or a contaminated sharp punctures the skin while performing student duties. Because these occurrences are ways of transmitting Hepatitis B or H.I.V., the Division of Allied Health and Nursing strongly urges the student to follow these guidelines as soon as possible. If the student is exposed, the initial test must be done within seven days in order to satisfy the requirements of Ohio law mandating the source patient to comply. (Hobson Bill)

Guidelines:

1. The student and instructor are responsible for complying with agency protocol at the time of exposure. The student and instructor need to:
 - a. Appropriately cleanse the area of exposure.
 - b. Notify the unit manager of the exposure.
 - c. Complete an incident form on the day of exposure to the body fluid.
 - d. Determine the tetanus history and follow-up with immunizations as directed by agency protocol.
 - e. Attempt to identify the source of exposure, and if able, obtain informed consent for antibodies to the Human Immunodeficiency Virus (H.I.V. antibodies) and Hepatitis B Surface antigen from the source patient.
 - f. Have the student read educational materials about H.I.V. and Hepatitis B.
2. The Division of Allied Health and Nursing recommends that the student be tested for H.I.V. Free testing sites are available in Lorain and Cuyahoga Counties. The student should be tested at least four (4) times over a one-year period: 1) initial test; 2) at six weeks; 3) at six months; 4) at one year. Counseling is also available at the sites. Refrain from giving blood during the testing period.
3. The Division of Allied Health and Nursing recommends that the student be tested for Hepatitis B Surface Antibodies and if needed, the student should receive the Hepatitis B Vaccine. The student can receive this vaccine at the local Health Department, or can contact his/her physician or go to the nearest emergency department. Immunizations cost approximately \$170.00 for three (3) doses over a six-month period. If the student is pregnant or becomes pregnant she should consult her physician immediately. (See section in this Student Handbook).
4. If the precise source of the student's exposure is unknown, the student will need a dose of Hepatitis B Immune Globulin, which can be given along with the Hepatitis B Immune Globulin, which can be given along with the Hepatitis B vaccine. The student can receive this at the local public Health Department.
5. The instructor should urge the student to encourage compliance with these guidelines and provide for appropriate counseling to support the student.

UNIFORM POLICY

*Students are advised to follow uniform / dress code regulations
required by the clinical institution.*

All uniforms must clearly display the following:**Identification Card:**

All students are required to purchase a second library card for identification purposes while in the clinical agencies. The cost of these cards will include punching the card and attaching the collar clip.

The identification card **must** be worn and clearly visible whenever a student is in the clinical agency. Failure to display the above will result in the student being sent home and responsible to make up the time.

The following is the standard uniform unless otherwise approved by the clinical facility (except for the Cleveland Clinic facilities). This should be followed until variations or the use of scrubs are verified/approved by the clinical facility. Failure to follow the uniform requirement of the facility will result in the student being sent home with the responsibility to make up the time. **Do not assume a variation of the uniform policy will be acceptable.**

REMEMBER THAT YOU REPRESENT THE COLLEGE, THE PROGRAM AND THE SONOGRAPHY PROFESSION; WE WANT YOU TO APPEAR AS A PROFESSIONAL!!

1. UNIFORM

A. Female Students

1. White perma-press dress or pantsuit. No “high fashion” uniforms are permitted.
2. A pant liner and/or camisole top may be required by faculty if uniform is too sheer.
3. NO Thong underwear.
4. Slips that are full-length, shadow-proof, white and made of static-free fabric are required under dress uniforms.
5. Dress length: Knees should be covered.
6. Shoes: White, low heels, oxford, slip-on, or other appropriate shoes. *ALL WHITE* tennis shoes and white socks may be worn with pantsuits. Shoes must be cleaned and/or polished. Open toe shoes or sandals are not permitted.
7. Hose: White.
8. Sweater: White only. May not be worn while in direct contact with patients.
9. Lab coats: White only.

B. Male students

1. Shirt: White, perma-press.
2. Pants: White. (May be obtained through uniform catalog.)
3. Shoes: White or black oxfords or slip-on, *ALL white or black* tennis shoes or other appropriate shoes. Shoes must be cleaned and/or polished.
4. Socks: White.
5. Belt: White or black.
6. Necktie
7. Lab coats: White only.

C. Uniforms must be clean and neatly pressed.**D. Scrubs are not to be worn except when required by surgical/invasive procedures, and provided by the clinical agency.****E. Uniforms may be worn on campus when traveling to or from the clinical site. However uniforms must be clean and free of body fluids. Uniforms stained of bodily fluids may not be worn on campus and the student must have a clean change of clothes or leave the classroom or laboratory.****Cleveland Clinic Dress Code Requirements (Male & Female)**

Navy blue scrub top

White scrub pants (white or beige underwear, **NO** Thongs)

Pure white socks and shoes

White t-shirts or turtlenecks may be worn under the navy top (long sleeves ok) (short sleeves not to hang out of scrub top)

Navy warm up jackets are ok

Student ID badge

Student radiation badge if needed

Failure to follow this policy will result in the student being dismissed from the clinical and an absence will be recorded

II. ACCESSORIES

- A. Earrings: None unless ears are pierced, then plain, small post-type earrings. No hoops or large earrings. Only one earring per ear.
- B. Rings: Wearing of engagement or wedding rings is permitted, but is highly discouraged. Rings must be removed when scrubbing or performing special procedures.
- C. No other rings or visible body piercings are permitted (i.e., nose, tongue, lip, eyebrow, etc.)
- D. Any visible tattoos should be covered while at the clinical site.
- E. Watch: Any type with plain band and sweep second hand or digital second read-out.
- F. Necklaces: Should not be visible when in uniform.

III. PERSONAL CARE

A. Hair

Female Students: Hair should be arranged neatly away from the face, not extreme, and is not to touch the collar of the uniform. Bobby pins, brown rubber bands, or hairnets may be used to secure hair. Clasp-type barrettes, only, may be used.

Male Students: Hair should be arranged neatly and away from the face, not extreme, and is not to touch the collar of the uniform. Bobby pins, brown rubber bands, or hair nets may be used to secure hair. Clasp-type barrettes, only, may be used. Beards and mustaches are permissible so long as they are neatly trimmed, do not cause a hazard to the student's work, and conform to agency policy. All hair must be professional looking.

B. Makeup is to appear natural and conservative.

C. Nails must not extend beyond 1/8-inch of the fingertip. Clear or natural nail polish may be worn, but not chipped. Due to the potential to harbor and spread of bacteria, artificial nails are prohibited at all facilities.

D. Hygiene

1. A clean uniform is to be worn each clinical day.
2. Shoes must be kept polished and have clean shoelaces.
3. Daily bathing prior to working with patients to eliminate body odor is required.
4. Use of antiperspirant is required.
5. Brushing teeth or use of mouthwash is required.
5. No gum chewing.

E. Diagnostic Medical Sonography students at the clinical agency must conform to the above uniform code at all times.

APPENDIX 1**COMPETENCIES**

Competencies specific to general sonography shall include but not be limited to the following areas of proficiency:

1. Demonstrate knowledge of human physiology, pathology, and pathophysiology;
2. Demonstrate knowledge and understating of related imaging, laboratory, and testing procedures as they contribute to the clinical evaluation of disease and pathology;
3. Identify sonographic representation of normal and abnormal anatomy;
4. Apply optimal scanning techniques and imaging for specific areas of interest;
5. Demonstrate knowledge of permanent image record processing methods, image processing, and storage.

APPENDIX 2**EXIT COMPETENCIES**

Prior to graduation, all Diagnostic Medical Sonography students must satisfactorily have met and completed all course, classroom and clinical objectives. In addition, we endorse and have incorporated into the appropriate courses, the terminal competencies mandated by the Joint Review Committee of Education in Diagnostic Medical Sonography (JRCDMS). The terminal competencies of the JRCDMS are listed below.

The graduate shall be able to:

1. Utilize oral and written communication.
 - a. Maintain clinical records
 - b. Interact with the interpreting physician or other designated physician with oral or written summary of findings as permitted by employer policy and procedure.
 - c. Recognize significant clinical information and historical facts from the patient and the medical records winch may impact on the diagnostic examination.
 - d. Comprehend and employ appropriate medical terminology, abbreviations, symbols, terms, and phrases.
 - e. Educate other health care providers and the public in the appropriate applications of ultrasound/non-invasive diagnostic vascular evaluation, including the following:
 - Medical terminology
 - Sonographic/other non-invasive diagnostic vascular terminology
 - Pertinent clinical signs, symptoms and laboratory tests
 - Pertinent legal principles
2. Provide basic patient care and comfort.
 - a. Maintain infection control and utilize universal precautions.
 - b. Anticipate and be able to respond to the needs of the patient.
 - c. Identify life-threatening situations and implement emergency care as permitted by agency procedure, including the following:
 - Infection control and universal precautions procedures
 - Pertinent patient care procedures
 - Principles of psychological support
 - Emergency conditions and procedures
 - First aid and resuscitation techniques
3. Demonstrate knowledge and understating of human gross and sectional anatomy.
 - a. Evaluate anatomic structures in the region of interest.

- b. Recognize the sonographic appearance of normal tissue structures, including the following:
 - Gross sectional anatomy
 - Embryology
 - Normal sonographic patterns
4. Demonstrate knowledge and understanding of physiology, pathology and pathophysiology.
 - a. Obtain and evaluate pertinent patient history and physical findings.
 - b. Extend standard diagnostic testing protocol as required by patient history or initial findings.
 - c. Review data from current and previous examinations to produce a written/oral summary of technical findings, including relevant interval changes for the interpreting physician's reference.
 - d. Recognize examination findings that require immediate clinical response and notify the interpreting physician of such findings, including the following:
 - Patient interview and examination techniques
 - Chart and referral evaluation
 - Diagnostic testing protocols related to specific disease conditions
 - Physiology including blood flow dynamics
 - Pertinent pathology and parapsychology
 - Pertinent legal issues
5. Demonstrate knowledge and understanding of acoustical physics, Doppler ultrasound principles and ultrasound instrumentation.
 - a. Select the appropriate technique(s) for examination(s) being performed.
 - b. Adjust instrument controls to optimize image quality.
 - c. Perform linear, area, circumference and other related measurements from sonographic images or data.
 - d. Recognize and compensate for acoustical artifacts.
 - e. Utilize hard-copy devices to obtain pertinent documentation of examination findings.
 - f. Minimize patient exposure to acoustical energy which includes the following:
 - Acoustical physics
 - Sound production and propagation
 - Interaction of sound and matter
 - Instrument options and transducer selection
 - Principles of ultrasound instruments and modes of operation
 - Operator control options
 - Physics of Doppler
 - Principles of Doppler techniques
 - Methods of Doppler flow analysis
 - Techniques for recording static and dynamic images
 - Acoustical artifacts
6. Demonstrate knowledge and understanding of the interaction between ultrasound and tissue and the probability of biological effects in clinical examinations, including the following:
 - Biologic effects
 - Pertinent in-vitro and in-vivo studies
7. Employ professional judgment and discretion.
 - a. Protect the patient's right to privacy.
 - b. Maintain confidentiality.
 - c. Perform within the scope of practice.
 - d. Adhere to the professional codes of conduct/ethics through the following:
 - Medical ethics
 - Pertinent legal principles
 - Professional interaction skills
 - Professional scopes of practice

8. Understand the fundamental elements for the implementing a quality assurance and improvement program, and the policies, protocols, and procedures for the general function of the ultrasound laboratory, including the following:
 - Administrative procedures
 - Quality control procedures
 - Elements of quality assurance program
 - Records maintenance
 - Personnel and fiscal management
 - Trends in health care systems

9. Recognize the importance of continuing education, through the following:
 - Professional journals
 - Conferences
 - Lectures
 - In-house educational offerings
 - Professional organizations and resources
 - Recent developments in sonography
 - Research statistics and design

APPENDIX 3

SPECIFIC COMPETENCIES

Competencies specific to the general learning concentration shall include, but not be limited to, the following:

1. Demonstrate the ability to perform sonographic examinations of the abdomen, superficial structures, non-cardiac chest, and the gravid and nongravid pelvis according to protocol guidelines established by national professional organizations and the protocol of the agency, utilizing real-time equipment with both transabdominal and endocavitary transducers, Doppler, and color Doppler display modes:
 - Demonstration/laboratory sessions
 - Clinical education

2. Recognize and identify the sonographic appearance of normal anatomic structures, including anatomic variants and normal Doppler patterns:

<ul style="list-style-type: none"> • Liver • Biliary system • Pancreas • Adrenal glands • Spleen • Abdominal vasculature • Peritoneal cavity, including potential spaces • Gastrointestinal tract 	<ul style="list-style-type: none"> • Non-cardiac chest • Neck • Breast • Scrotum • Prostate • Anterior abdominal wall • Extremities • Brain and spinal cord
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3. Recognize, identify and appropriately document the abnormal sonographic and Doppler patterns of disease processes, pathology, and pathophysiology of the structures listed above. Modify the scanning protocol based on the sonographic findings and the differential diagnosis:
 - History and physical examination
 - Related imaging, laboratory and functional testing procedures
 - Clinical differential diagnosis
 - Role of ultrasound patient management

Sonographic and Doppler patterns in clinical diseases which may occur in the following categories:

- Iatrogenic
- Degenerative
- Inflammatory
- Traumatic
- Neoplastic
- Obstructive
- Infections
- Congenital
- Metabolic
- Immunologic

4. Recognize and identify the sonographic appearance of normal anatomic structures of the female pelvis, including anatomic variants and normal Doppler patterns:

- Reproductive system
- Pelvic muscles
- Suspensory ligaments
- Peritoneal spaces
- Pelvic vasculature

5. Recognize and identify the sonographic appearance of normal maternal, embryonic and fetal anatomic structures during the first, second, and third trimesters:

- Sonographic sectional anatomy
- Pertinent measurement techniques
- Doppler applications
- Normal sonographic appearance of fetal and maternal structures

6. Recognize, identify, and appropriately document the sonographic appearance of gynecologic disease processes, disease, pathology and pathophysiology:

- History and physical examination
- Related imaging, laboratory and functional testing procedures
- Differential diagnosis
- Role of ultrasound in patient management

Abnormal sonographic patterns in pregnancy:

- Iatrogenic
- Degenerative
- Inflammatory
- Traumatic
- Neoplastic
- Infections
- Obstructive
- Congenital
- Metabolic
- Immunologic

Contraceptive devices

Infertility procedures

Doppler applications

7. Recognize, identify, and appropriately document the sonographic appearance of obstetric abnormalities, disease, pathology and pathophysiology:

- History and physical examination
- Related imaging, laboratory and functional testing procedures
- Differential diagnosis
- Role of ultrasound in patient management

Abnormal sonographic patterns in pregnancy:

- Placenta
- Congenital/genetic anomalies
- Growth abnormalities
- Amniotic fluid
- Viability
- Multiple gestation
- Fetal monitoring
- Maternal factors
- Postpartum
- Fetal therapy

8. Demonstrate knowledge and understanding the role of the sonographer in performing interventional/invasive procedures.

APPENDIX 4 – Generic Abilities (Professional Behaviors)

Instructions: Highlight all criteria that describes the student’s performance

Name: _____ Semester: _____ Clinical Site: _____

Generic Abilities	Beginning Level Behavioral Criteria	Developing Level Behavioral Criteria	Entry Level Behavioral Criteria
1. Commitment to Learning	Identifies problems; formulates appropriate questions; identifies and locates appropriate resources; demonstrates a positive attitude (motivation) toward learning; offers own thought and ideas; identifies need for further information	Prioritizes information needs; analyzes and subdivides large questions into components; seeks out professional literature; sets personal and professional goals; identifies own learning needs based on previous experiences; plans and presents an in-service, or research or case studies; welcomes and/or seeks new learning opportunities	Applies new information and re-evaluates performance; accepts that there may be more than one answer to a problem; recognizes the need to and is able to verify solutions to problems; reads articles critically and understands the limits of application to professional practice; researches and studies areas where knowledge base is lacking
2. Interpersonal Skills	Maintains professional demeanor in all clinical interactions; demonstrates interest in patients as individuals; respects cultural and, personal differences of others; is non-judgmental about patients’ lifestyles; communicates- with others in a respectful, confident manner; respect personal space of patients and others; maintains confidentiality in all clinical interactions; demonstrates acceptance of limited knowledge and experience.	Recognizes impact of non-verbal communication and modifies accordingly; assumes responsibility for own actions; motivates others to achieve; establishes trust; seeks to gain knowledge and input from others; respects role of support staff.	Listens to patient but reflects back to original concerns; works effectively with challenging patients; responds effectively to unexpected experiences; talks about difficult issues with sensitivity and objectivity; delegates to others as needed; approaches others to discuss differences-in opinion; accommodates differences in learning styles
3. Communication Skills	Demonstrates understanding of basic English (verbal and written): uses correct grammar, accurate spelling and expression; writes legibly; recognizes impact of non-verbal communication: listens actively; maintains eye contact.	Utilizes non-verbal communication to augment verbal message; restates, reflects and clarifies. message; collects necessary information from the patient interview.	Modifies communication (verbal and written) to meet needs of different audiences; presents verbal or written messages with logical organization and sequencing; maintains open and constructive communication; utilizes communication technology effectively; dictates clearly and concisely
4. Effective Use of Time and Resources.	Focuses on tasks at hand without dwelling on past mistakes; recognizes own resource limitations; uses existing resources effectively; uses unscheduled time efficiently; completes assignments in timely fashion.	Sets up own schedule; coordinates schedule with others; demonstrates flexibility; plans ahead.	Sets priorities and reorganizes when needed; considers patient’s goals in context of patients’ goals in context of patient, clinic and third party resources; has ability to say “No”; performs multiple tasks simultaneously and delegates when appropriate; uses scheduled time with each patient efficiently.

Behavioral Criteria Refined

Instructions Highlight all criteria, that describes the student's performance

Generic Abilities	Beginning Level Behavioral Criteria	Developing Level Behavioral Criteria	Entry Level Behavioral Criteria
5. Use of Constructive Feedback	Demonstrates active listening skills; actively seeks feedback and help; demonstrates a positive attitude toward feedback; critiques own performance; maintains two-way information.	Assesses own performance accurately; utilizes feedback when establishing pre-professional goals; provides constructive and timely feedback when establishing pre-professional goals; develops plan of action in response to feedback	Seeks feedback from clients; modifies feedback given to clients according to their learning styles; reconciles differences with sensitivity; considers multiple approaches when responding to feedback
6. Problem-Solving	Recognizes problems; states problems clearly; describes known solutions to problem; identifies resources needed to develop solutions; begins to examine multiple solutions to problems .	Prioritizes problems; identifies contributors to problem: considers consequences of possible solutions; consults with others to clarify problem	Implements solutions; reassesses solutions; evaluates outcomes; updates solutions to problems based on current research; accepts responsibility for implementing of solutions
7. Professionalism	Abides by SDMS Code of Ethics; demonstrates awareness of board/healthcare regulations; abides by facility policies and procedures; projects professional image; attends professional meetings; demonstrates honesty, compassion, courage and continuous regard for all	Identifies positive professional role models; discusses societal expectations of the profession; acts on moral commitment; Involves other health care professionals in decision-making; seeks informed consent from patients.	Demonstrates accountability for professional. decisions; treats patients within scope of expertise; discusses role of ultrasound in health care; keeps patient as priority.
8. Responsibility	Demonstrates dependability; demonstrates punctuality; follows through on commitments; recognizes own limits	Accepts responsibility for actions and outcomes; provides safe and secure environment for patients; offers and accepts help; completes projects without prompting	Directs patients to other health care professionals when needed; delegates as needed; encourages patient accountability
9. Critical Thinking	Raises relevant questions; considers all available information; states the results of scientific literature; recognizes 'holes' in knowledge base; articulates ideas.	Feels challenged to examine ideas; understands scientific method; formulates new ideas; seeks alternative ideas; formulates alternative hypotheses; critiques hypotheses and ideas	Exhibits openness to contradictory ideas; assess issues raised by contradictory ideas; justifies solutions selected; determines effectiveness of applied solutions
10. Stress Management	Recognizes own stressors or problems; recognizes distress or problems in others; seeks assistance as needed maintains professional demeanor in all situations.	Maintains balance between professional and personal life; demonstrates effective affective responses in all situations; accepts constructive feedback; establishes outlets to cope with stressors.	Prioritizes multiple commitments; responds calmly to urgent situations; tolerates inconsistencies in health care environment

APPENDIX 5**Sonography Student Clinical Site Orientation****ALLEN COMMUNITY HOSPITAL**

200 W. Lorain St.
Oberlin, Ohio 44074
Radiology Dept. (440) 775-9120
fax (440) 775-9184

Contact Person: Cathy Kennelly, sonographer/student liaison sonocatt@yahoo.com

Parking and Directions: Take Rt. 58 to Lorain Rd, head west on Lorain Rd. The hospital is approximately one mile on the north side of the road. Students should acquire directions from Mapquest if necessary. No Parking Pass is needed, no cost for parking. Please park in the front of the hospital in spots farthest from the hospital entrance. Enter through the front door and walk straight back to Diagnostic Imaging on your right. Identify yourself at the reception desk as an LCCC sonography student.

Hours of Operation: Monday thru Friday 7:30 am – 5 pm. Student hours will be on day shift during the week. Make-up hours must be approved on an individual basis by the sonographer. Additional hours include some evenings and Saturdays.

Uniforms: LCCC dress code indicates white scrubs. A student LCCC ID badge must be worn and visible at all times. Any color of scrubs is acceptable at this clinical site as long as it is professional. A lab coat is optional. Jewelry should be limited to LCCC dress code and tattoos should be covered.

Orientation: Official clinical site orientation will take place on **the first day of clinical** and requires that an LCCC orientation checklist be documented upon arrival to clinical site within the first two of weeks.

Other: LCCC background check is necessary **prior to starting clinical hours**. Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours.

CLEVELAND CLINIC FOUNDATION - MAIN CAMPUS

9500 Euclid Ave. A-21
Cleveland, Ohio 44195
Mark Moore, Education Coordinator (216) 444-6484, moorem6@ccf.org
Karen Godec, Ultrasound Supervisor (216) 444-6485
Amy Szopo, Student Liaison, amy.szopo@live.com
(216) 445-9445 fax

Contact Person: New students can email Mr. Moore regarding orientation.

Parking and Directions: Directions can be emailed to new students. Students should acquire directions from Mapquest if necessary. Hospital maps can be obtained by visiting the CCF Orientation website and is recommended. On the first day of clinical students are expected to use the parking garage on Carnegie and E.100th. From Carnegie head south on E.100th St. and the garage is on your left. There are 3 lanes in and out of the garage. The first lane is the exit, so use the second lane to enter (if closed use third). Drive past the guard shack and **get a parking ticket and bring that into the hospital for validation**. Try to park by the 3rd floor and use the elevators at the end of

the garage to the skyway. Take the skyway across Carnegie to the “A” building or “Crile” building. Go past the cafeteria and continue straight to the A21 Radiology desk and ask for Mark Moore at the desk. He will come to greet the new student. Parking is at no cost to the student; however the student may be parking in an off-campus lot and will be shuttled to campus. Please allow for enough time prior to the start of the day.

Hours of Operation: Regular student clinical hours will consist of mostly day shift, week day hours, to be arranged by the student prior to the start of clinical. However, evening and weekends can be used for make-up if arrangements are made in advance with the Supervisor, Ms. Godec.

Uniforms: Cleveland Clinic dress code for all students is navy blue scrub top, white scrub pants (white or beige underwear, **NO** thongs), pure white socks and white shoes. White t-shirts or turtlenecks may be worn under the navy top (long sleeves ok) (short sleeves are not to hang out of scrub top). Navy warm up jackets are acceptable. Students must have CCF ID badge and LCCC ID badge visible at all times. Jewelry should be kept to a minimum. Tattoos must be covered and must follow LCCC dress codes. **Absolutely no facial jewelry is allowed.** No artificial nails or nail polish is allowed. **ID badge must be worn at all times within the facility.** No decals or designs can be worn under or on scrubs. Gum chewing is prohibited. Any student smelling of heavy perfume or cigarette smoke may be asked to change or go home. Long hair must be pulled back and fastened away from face. All hair, including facial hair should be neat and trimmed. CCF dress code rules will be reviewed upon orientation process.

Orientation: An official CCF orientation and safety training called “COMET” must take place **prior to the start of clinical hours.** This can be done on-line and can be emailed to the student. Students must first contact Mark Moore (moorem6@ccf.org) to make these arrangements and complete the necessary information. The completed certificate must be given to Mr. Moore on the first day of clinical. Students are required to review and sign acceptance of the CCF policy manual, as well as a departmental “firewalk” for their designated area. They will be required to obtain a CCF ID badge that must be worn at all times and a parking pass. Documentation of an LCCC Orientation checklist will also be required within the first two weeks.

Other: A current background check and finger printing is necessary and performed by CCF on the first day of clinical. Current physicals and vaccines compliant with LCCC codes, as well as current T.B. test (within 6 months) and CPR certification are necessary. Proof of health Insurance is also necessary.

Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours. It is recommended that the calls be made directly to the Ultrasound Supervisor and the Education Coordinator.

CCF CHESTNUT COMMONS

303 Chestnut Commons (440) 204-7923

Elyria, Ohio 44035

Sondra Powell, Manager Lorain Family Health Centers

Contact Person: Sondra Powell Ambulatory Supervisor at powells4@ccf.org or Michelle Pence technologist at pencem@ccf.org

Parking and Directions: Rt. 57 South to Chestnut Commons in Elyria (Next to Walmart). Students should acquire directions from Mapquest if necessary. Parking is at no cost and is available without a permit. Student parking is in the same lot as employee on the South lot, the farthest spots from the facility.

Hours of Operation: Department is open 10 hrs a day, Monday thru Friday, usually starting at 7:30 am. Regular student clinical hours will consist of day shift, week day hours, to be arranged by the student prior to the start of clinical.

Uniforms: Cleveland Clinic dress code for all students is navy blue scrub top, white scrub pants (white or beige underwear, **NO** thongs), pure white socks and white shoes. White t-shirts or turtlenecks may be worn under the navy top (long sleeves ok) (short sleeves are not to hang out of scrub top). Navy warm up jackets are acceptable. Student's must have CCF ID badge and LCCC ID badge visible at all times. Jewelry should be kept to a minimum. Tattoos must be covered and must follow LCCC dress codes. **Absolutely no facial jewelry is allowed.** No artificial nails or nail polish is allowed. **ID badge must be worn at all times within the facility.** No decals or designs can be worn under or on scrubs. Gum chewing is prohibited. Any student smelling of heavy perfume or cigarette smoke may be asked to change or go home. Long hair must be pulled back and fastened away from face. All hair, including facial hair should be neat and trimmed. CCF dress code rules will be reviewed upon orientation process.

Orientation: An official CCF orientation and safety training called "COMET" must take place **prior to the start of clinical hours.** This can be done on-line and can be emailed to the student. Students must first contact Mark Moore (moorem6@ccf.org) to make these arrangements and complete the necessary information. The completed certificate must be given to Mr. Moore on the first day of clinical. Students are required to review and sign acceptance of the CCF policy manual, as well as a departmental "firewalk" for their designated area. They will be required to obtain a CCF ID badge that must be worn at all times and a parking pass. Documentation of an LCCC Orientation checklist will also be required within the first two weeks.

Other: A current background check and finger printing is necessary and performed by CCF on the first day of clinical. Current physicals and vaccines compliant with LCCC codes, as well as current T.B. test (within 6 months) and CPR certification are necessary. Proof of health Insurance is also necessary.

MERCY REGIONAL MEDICAL CENTER - LORAIN

3600 Kolbe Rd.

Lorain, Ohio 44053

Ultrasound Dept. (440) 960-3526 or (440) 960-3534

fax (440) 960-3596

Contact Person: Misty Didion – supervisor mstishel@buckeye-express.com
Tonya Cazzell- (440) 960-4054 Radiology Supervisor tonya.cazzell@health-partners.org

Parking and Directions: Take Rt. 58 north to Lake Road at Lake Erie. Turn right, the hospital is located on the west corner of Lake Rd. and Kolbe Rd. Students should acquire directions from Mapquest if necessary. Parking is at no cost and is available without a permit. Student parking is in the North lot, the farthest spots from the hospital entrance.

Hours of Operation: Monday thru Friday 7:30 am – 11:00 pm. Saturday and Sunday are from 7:30 am- 4:00 pm. Student hours will consist of day shift hours during the week and can be either 8 hours or 10 hours a day, but must be approved by department supervisor or clinical liaison. Make-up hours are also available on Saturdays but must be approved in advance by the supervisor.

Uniforms: First year students must follow LCCC dress code, indicating all white with white lab coat, white shoes. A student LCCC ID badge must be worn and visible at all times. Second year

students may be allowed to wear colored scrubs as long as they are neat and appropriate. Jewelry is limited to the LCCC dress code and tattoos must be covered.

Orientation: Please enter through the front of the hospital and follow signs to the radiology department. Once there, ask at the radiology window for ultrasound and introduce yourself as a LCCC student. Orientation will take place **the first day of clinical unless otherwise scheduled** and documentation of the LCCC Orientation checklist will be required within the first two weeks.

Other: LCCC background check is necessary **prior to starting clinical hours**. Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours.

EMH REGIONAL MEDICAL CENTER (includes Avon and Amherst Campuses)

630 East River Rd.

Elyria, Ohio 44035

Lori Hoefs, Supervisor (440) 329-7778, lhoefs@emhrhs.org

Amy Cowling, Student Liaison, acowling@emhrhs.org

Ultrasound Dept. (440) 329-7804

fax (440)329-7307

Contact Person: Please email either Lori or Amy with questions.

Parking: Students should acquire directions from Mapquest if necessary. Parking for the first day can be in the garage across from the hospital. After that, a student parking pass is obtained from Security and must be displayed in the car window at all times. Parking from that point should be across the street and next to the Human Resources Lot. There are no fees for parking. Violation of the parking regulations results in disciplinary action against the student.

Hours of Operation: Monday thru Friday 6:30 am – 12 pm, Saturday and Sunday 7am – 7 pm. Due to limited availability of sonographers on off-shifts, clinical time will be limited to **8 hour** days during the week. Evenings and weekends can be used for make-up hours and must be approved in advance. These will be handled on an individual basis. A maximum of 2 students can be scheduled in the department at any one time. Any and all call-offs must be reported to the department at a minimum of 2 hrs prior to scheduled clinical hours.

Uniforms: LCCC dress code indicates all white scrubs, white undergarments and a white lab coat. The student LCCC ID badge must be worn and visible at all times. White shoes or white tennis shoes are acceptable. Jewelry should be limited to LCCC dress code (no more that 2 sets of earrings) and **absolutely no facial jewelry**. Tattoos must be covered. No artificial nails are allowed.

Orientation: When the new student enters the hospital, they can pick up a phone at the front desk and call x7804 or x7821 and an available sonographer will come and greet them. The orientation process will consist of an introduction, a tour and a checklist of both interdepartmental and hospital-wide policies **on the first day of clinical unless otherwise scheduled**. Documentation of an LCCC Orientation checklist will also be required on or after the first day. Current physicals and vaccines compliant with LCCC codes, as well as current T.B. test and CPR certification are necessary.

Other: Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours. If needed, Security is available to escort the student to their car after hours. Orientation to Avon Imaging Center and Amherst Hospital can be accomplished by the student on their first day. Both facilities follow EMH policies. EMH requires background checks of

all students. The LCCC background check is acceptable, however if anything shows up on the background check, the program director must report these to the EMH Human Resources office for evaluation and determines if the student will be permitted at EMH the facilities.

EMH CENTER FOR HEALTH & FITNESS

1997 Healthway Drive

Avon, Ohio 44011

Suite # 101

Imaging Department – (440) 988-6940

fax 988-6945

Michelle Cousino, supervisor, mcousino@emhrhs.org

Terri Gabriele, sonographer, Student Liaison, tgabrie@emhrhs.org

Contact Person: Contact Terri or Michelle for questions.

Parking and Directions: Interstate 90 (Route 2) to State Route 83 exit. Turn right on OH-83 (south) to Detroit Rd. (Rt. 254). Turn right onto Detroit Rd to Healthway Drive (at Burger King). Turn right onto Healthway Drive, the EMH Center for Health & Fitness is at the end of the street. Parking is free. Students can park in the parking lot farthest away on the right of the building that is not for designated for emergency or the fitness center.

Hours of operation: Monday – Wednesday & Friday 7:30 – 4:00, Thursday 7:30 – 8:00, Saturday 8:00 – 12 noon. Student hours are mainly 7:30 – 4:00, variations need prior approval from the facility staff or program faculty.

Uniforms: LCCC dress code indicates all white scrubs, white undergarments and a white lab coat. The student LCCC ID badge must be worn and visible at all times. White shoes or white tennis shoes are acceptable. Jewelry should be limited to LCCC dress code (no more than 2 sets of earrings) and **absolutely no facial jewelry**. Tattoos must be covered. No artificial nails are allowed.

Orientation: Orientation to the Center for Health & Fitness will be done on the first day. Documentation of an LCCC Orientation checklist will also be required within the first two weeks. Current physicals and vaccines compliant with LCCC codes, as well as current T.B. test and CPR certification are necessary.

Other: Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours. If needed, Security is available to escort the student to their car after hours. The Fitness & Health Center follows EMH policies. EMH requires background checks of all students. The LCCC background check is acceptable, however if anything shows up on the background check, the program director must report these to the EMH Human Resources office for evaluation and determines if the student will be permitted at EMH the facilities.

EMH - AMHERST CAMPUS

254 Cleveland Avenue

Amherst, Ohio 44001

Michelle Dossa, Radiology manager, (440) 988-6211, mdossa@emhrhs.org

Radiology (440) 988-6200

Radiology Fax (440) 988-6201

Contact Person: Michelle Cousino, Radiology Supervisor and/or Julie Gedling (T, TH), Sonographer, Tami Roseman (M, W, F), Sonographer

Parking and Directions: Take I-90 (State Route 2) to State Route 58. Take Route 58 south to Cleveland Avenue. Turn right onto Cleveland Avenue. The hospital is on the left side of the street. Parking is free any students can park anywhere that is not designated emergency or physician parking.

Hours of operation: Monday – Wednesday & Friday 7:30 – 4:00, Thursday 7:30 – 8:00, Saturday 8:00 – 12 noon. Student hours are mainly 7:30 – 4:00, variations need prior approval from the facility staff or program faculty.

Uniforms: LCCC dress code indicates all white scrubs, white undergarments and a white lab coat. The student LCCC ID badge must be worn and visible at all times. White shoes or white tennis shoes are acceptable. Jewelry should be limited to LCCC dress code (no more than 2 sets of earrings) and **absolutely no facial jewelry**. Tattoos must be covered. No artificial nails are allowed.

Orientation: Orientation to Amherst Hospital will be done on the first day. Documentation of an LCCC Orientation checklist will also be required within the first two weeks. Current physicals and vaccines compliant with LCCC codes, as well as current T.B. test and CPR certification are necessary.

Other: Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours. If needed, Security is available to escort the student to their car after hours. Amherst Hospital follows EMH policies. EMH requires background checks of all students. The LCCC background check is acceptable, however if anything shows up on the background check, the program director must report these to the EMH Human Resources office for evaluation and determines if the student will be permitted at EMH the facilities.

FAIRVIEW HOSPITAL-PERINATOLOGY DEPARTMENT

18099 Lorain Rd.

Cleveland, Ohio 44111, Medical Building, suite 345

(216) 476-7828 manager and lead sonographer

(216) 476-4069 fax

Contact Person: Carole Porter, Manager or Marcia Fritz, marcia.fritz@fairviewhospital.org lead sonographer and clinical liaison.

Parking and Directions: Take Route 2 (I-90) to the McKinley road exit. Head south and follow the signs to Lorain Road. Students should acquire directions from Mapquest if necessary. Please park in the visitor lot on the first day and they will validate your pass, **for the first day only. The cost is \$8.** Students must obtain a Cleveland Clinic ID badge is obtained from the Cleveland Clinic's Main Campus then a parking pass will be issued at Fairview Hospital. Students may be required to park at an off-site lot and take a shuttle to the hospital, please contact Ms. Porter or Ms. Fritz before the starting date regarding parking arrangements.

Hours of Operation: Monday, Wednesday, Thursday and Friday are from 7:30 am – 5 pm. Tuesdays are from 8 am- 5 pm. **No weekend or evening hours are available.**

Uniforms: LCCC dress code indicates all white scrubs, white undergarments and a white lab coat. The student LCCC ID badge must be worn and visible at all times. White shoes or white tennis shoes are acceptable. No crocs are allowed. Jewelry should be limited to LCCC dress code (no more than 2 sets of earrings) and **absolutely no facial jewelry**. Tattoos must be covered. No artificial

nails are allowed. **This facility is strictly a non-smoking facility and there is no smoking on hospital grounds and the smell of smoke is not tolerated. ID badge must be worn at all times within the facility.**

Orientation: An official CCF orientation and safety training called “COMET” must take place **prior to the start of clinical hours.** This can be done on-line and can be emailed to the student. Students must first contact Mark Moore (moorem6@ccf.org) to make these arrangements and complete the necessary information. The completed certificate must be given to Mr. Moore on the first day of clinical. Students are required to review and sign acceptance of the CCF policy manual, as well as a departmental “firewalk” for their designated area. They will be required to obtain a CCF ID badge that must be worn at all times and a parking pass.

Other: Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours.

FAIRVIEW PERINATOLOGY - WOMEN'S HEALTH CENTER

This is an ancillary facility of the Fairview Perinatology Offices. Please work through Ms. Yuhasz regarding directions and arrangements for this facility.

Contact person: Marcia Fritz lead sonographer marcia.fritz@fairviewhospital.org - call Fairview Hospital Perinatology or email to arrange hours.

Hours of Operation: Monday, Wednesday, Thursday and Fridays from 8-4:30. No weekend or evening hours available.

Uniform, Orientation and Others: same as Fairview Hospital Perinatology above.

FIRELANDS REGIONAL MEDICAL CENTER

1111 Hayes Ave.
Sandusky, Ohio 44870
Melissa Reinbolt, Supervisor (419) 557-7334
Dee Dee Keckler, student liaison, kecklerw@ncwcom.com
Ultrasound Dept. (419) 557-7616
fax (419) 557-7629

Contact Person: Melissa Reinbolt or Dee Dee Keckler

Parking and Directions: Rt. 2 (I-90) to route 4 exit. Take route 4 north approximately 5 miles to Hayes Ave. Signs will indicate hospital. Pass first portion of hospital on right side of road near high school and radiology is located farther north on route 4 on left side of street. Students should acquire directions from Mapquest if necessary. Follow signs to visitor parking garage. Parking must be on the 5th or 6th floor and no pass is needed. Parking is no cost to the student.

Hours of Operation: Monday thru Friday 7 am – 11:30 pm. Saturdays from 7am – 3:30 pm. Clinical hours can be arranged by the student and will consist of day shifts during the week; it may include 8 or 10 hours shifts. Weekends can only be used for make-up time and must be approved by the supervisor. Only one student per day at a time is permitted at this clinical site, as they also may have students from other facilities. This facility is currently only available during the spring semester for second year students.

Uniforms: LCCC dress code indicates white scrubs, white lab coat and white shoes. A student LCCC ID badge must be worn and visible at all times. Jewelry should be kept to a minimum. Tattoos must be covered and must follow LCCC dress codes. No artificial nails are allowed.

Orientation: Enter the hospital through the front doors and follow the signs to the radiology department. At the radiology desk, ask for Melissa Reinbolt in Ultrasound and introduce yourself as the LCCC student. No official hospital orientation process is given prior to arrival, although documentation of an LCCC Orientation checklist to the department will be required after the first day.

Other: No background check is necessary prior to starting clinical hours. Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours.

HILLCREST MEDICAL CENTER

6780 Mayfield Rd.

Mayfield Heights, OH 44124

440.312.4500

Renee Kolonick, Director of Radiology - 440-312-7122

Ultrasound Department - 440-312-0150

fax 440-312-6420

Contact Person: Jackie Pratt, jpratt@cchseast.org, student liaison or Renee Kolonick, Director of Radiology

Parking and Directions: Route 2 (I-90) east through downtown Cleveland to I-271 South and exit at Mayfield Road (Rt. 322) heading east. **OR** Route 10 East to I-480 East to I-271 North and exit at Mayfield Road (Rt. 322) heading east. Follow the hospital signage. Cross SOM Center Road (Rt. 91), then proceed approximately 800 feet ahead and enter the four-lane driveway into the Hillcrest Hospital complex. Students should acquire directions from Mapquest if necessary.

Hours of Operation: Monday thru Friday 7 am – 11:30 pm. Saturdays from 7am – 3:30 pm. Clinical hours can be arranged by the student and will consist of day shifts during the week; it may include 8 or 10 hours shifts. Weekends can only be used for make-up time and must be approved by the supervisor.

Uniforms: Follow the Cleveland Clinic dress code for all students which is navy blue scrub top, white scrub pants (white or beige underwear, **NO** thongs), pure white socks and white shoes. White t-shirts or turtlenecks may be worn under the navy top (long sleeves ok) (short sleeves are not to hang out of scrub top). Navy warm up jackets are acceptable. Students must have CCF ID badge, LCCC ID badge worn and visible at all times. Jewelry should be kept to a minimum. Tattoos must be covered and must follow LCCC dress codes. **Absolutely no facial jewelry is allowed.** No artificial nails or nail polish is allowed. **ID badge must be worn at all times within the facility.** No decals or designs can be worn under or on scrubs. Gum chewing is prohibited. Any student smelling of heavy perfume or cigarette smoke may be asked to change or go home. Long hair must be pulled back and fastened away from face. All hair, including facial hair should be neat and trimmed. CCF dress code rules will be reviewed upon orientation process.

Orientation: An official CCF orientation and safety training called “COMET” must take place **prior to the start of clinical hours.** This can be done on-line and can be emailed to the student. Students must first contact Mark Moore (moorem6@ccf.org) to make these arrangements and complete the necessary information. The completed certificate must be given to Mr. Moore on the first day of

clinical. Students are required to review and sign acceptance of the CCF policy manual, as well as a departmental “firewalk” for their designated area. They will be required to obtain a CCF ID badge that must be worn at all times and a parking pass. Documentation of an LCCC Orientation checklist will also be required on or after the first day.

Other: A current background check and finger printing is necessary and performed by CCF on the first day of clinical. Current physicals and vaccines compliant with LCCC codes, as well as current T.B. test (within 6 months) and CPR certification are necessary. Proof of health Insurance is also necessary.

Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours. It is recommended that the calls be made directly to the Ultrasound Supervisor and the Education Coordinator.

METROHEALTH MEDICAL CENTER

2500 Metrohealth Drive.

Cleveland, Ohio 44109-1998

Shannon McCartney, Ultrasound Supervisor (216) 778-4936 smccartney@metrohealth.org

Ultrasound Department (216) 778-4761

Contact Person: Cheryl Greene, Student Liaison, cgreene@metrohealth.org or Shannon McCartney, Ultrasound Supervisor

Parking and Directions: Route 2 (I-90) to the West 25th St. exit. Turn right, and go approximately one mile south on left, follow hospital signs. Metro can also be reached by taking I-480 to I-71 north and exit at West 25th St. Turn left (north), and follow hospital signs, hospital should be approximately one-half mile on right. Students should acquire directions from Mapquest if necessary. **A parking pass is mandatory and arrangements must be made in advance to starting clinical hours to obtain pass.**

Students must bring valid driver’s license to obtain a Metrohealth ID, then they can obtain a parking pass. Please know that there is **a fee for parking**, but it is at a discounted rate for the students. Visitor parking is acceptable for only the first day until parking pass is obtained, but is at a rate of \$4-5 dollars a day.

Hours of Operation: Monday thru Friday from 7 am -12:30 pm; Saturday and Sunday from 8am-6:30 pm. Clinical hours can be arranged by the student and will consist of day shifts during the week. 8 or 10 hours shifts are possible. Weekends can only be used for make-up time and must be approved by the supervisor. Only one student per day is permitted at a time at this clinical site, as they may have students from other facilities.

Uniforms: LCCC dress code indicates white scrubs, white lab coat and white shoes. A student LCCC ID badge must be worn and visible at all times. Jewelry should be kept to a minimum. Tattoos must be covered and must follow LCCC dress codes. **Absolutely no facial jewelry is allowed.** No artificial nails or nail polish is allowed. **ID badge must be worn at all times within the facility.**

Orientation: Metrohealth requires a student orientation and can only be done on Mondays prior to arrival in the department. This must be arranged in advance of starting the semester. This is when the student will get an ID pass, a parking pass and any other necessary information. It is important that the student calls ahead and makes the necessary arrangements with the department supervisor when notified of the clinical site, so that they can start clinical hours on time. An

interdepartmental orientation will take place on or after the first day of clinical and will require documentation on an LCCC Orientation checklist.

Other: Please feel free to call ahead and make any necessary arrangements as soon as possible with the department supervisor. The facility may perform background checks when the student acquires a facility ID pass. Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours.

SOUTHWEST GENERAL HEALTHCARE CENTER

18697 Bagley Rd.

Middleburg Heights., Ohio 44130

Christine Van Cucha, Radiology Supervisor, (440) 816-5809, CVanCucha@swgeneral.com

Ultrasound Department (440) 816-8555

fax (440) 816-6370

Contact Person: Christine Van Cucha, Radiology Supervisor or Coleen Parrott, student liaison at munchkin_cw@hotmail.com

Parking and Directions: Hospital can be accessed by either I-480 east to I-71 south to Bagley Road or the Ohio Turnpike (I-80) to I-71, take I-71 north to Bagley Road. Exit at Bagley Rd and follow signs to hospital. Students should acquire directions from Mapquest if necessary. Parking is at no cost to the student, but is required in designated lots. Parking restrictions are reviewed at the hospital orientation.

Hours of Operation: Monday thru Friday hours are from 7 am – 7 pm. Saturday hours include 8 am -12 pm. Clinical hours will include mostly day shifts during the week with 8 or 10 hour shifts being an option. Arrangements for weekends or evenings must be approved by the supervisor and made in advance.

Uniforms: LCCC dress code indicates white scrubs, white lab coat with and white shoes. A student LCCC ID badge must be worn and visible at all times. Jewelry should be kept to a minimum. Tattoos must be covered and must follow LCCC dress codes. **Absolutely no facial jewelry is allowed.** No artificial nails or nail polish is allowed. **ID badge must be worn at all times within the facility.**

Orientation: **Prior to each new student starting clinical hours, they must call the Education Office at (440) 816-8035 and arrange a hospital orientation.** At this time, parking restrictions will be reviewed and an ID badge will be obtained. All students are required to demonstrate proof of a recent TB test and completed physical (bring a copy to the facility at orientation). An interdepartmental orientation will take place on or after the first day of clinical and will require documentation on an LCCC Orientation checklist.

Other: Please feel free to call ahead and make any necessary arrangements as soon as possible with the department supervisor. A background check may be performed by the facility prior to starting clinical hours. Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours.

UNIVERSITY HOSPITAL-WESTLAKE HEALTH CENTER

960 Clague Rd., Suite 1300
Westlake, Ohio 44145
Supervisor (440) 250-4352
Ultrasound (440) 250-5305
fax (440) 250-2091

Contact Person:

Parking and Directions: Take route 2 (I-90) east to the Clague Rd. exit. The facility is located on Detroit Rd. closest to Clague on the south side of Rt. 2. Students should acquire directions from Mapquest if necessary. Parking is at no cost to the student and is available behind the building and behind the blue line on the pavement for employees. Enter the building from the rear entrance. Introduce yourself at the radiology/laboratory desk as the new LCCC sonography student and ask for directions to the department.

Hours of Operation: Monday thru Friday from 8:30 am to 5 pm. No weekends or evening are available.

Uniforms: LCCC dress code indicates white scrubs, white lab coat with LCCC badge and white shoes. A student LCCC ID badge must be worn and visible at all times. Jewelry should be kept to a minimum. Tattoos must be covered and must follow LCCC dress codes. **Absolutely no facial jewelry is allowed.** No artificial nails or nail polish is allowed. **ID badge must be worn at all times within the facility.** Colored scrubs may be allowed after the first day as long as they are neat, clean and professional.

Orientation: The orientation process will consist of an introduction, a tour and a checklist of both interdepartmental and hospital-wide policies **on the first day of clinical unless otherwise stated.** Documentation of an LCCC Orientation checklist will also be required on or after the first day. Current physicals and vaccines compliant with LCCC codes, as well as current T.B. test and CPR certification are necessary.

Other: Please note that there is a small coffee shop in the atrium with limited hours of operation and lunch is for 30-45 minutes. There are several fast food operations in the area. There is a break room provided with a refrigerator and a microwave. Bringing your lunch is recommended as the coffee shop is expensive. The LCCC background check is necessary prior to the start of clinical hours. Call-offs to clinical must be made 2 hours prior to the start of clinical and arrangements must be made to make-up those hours. It is recommended that the calls be made directly to the ultrasound room.

APPENDIX 6
DMS HOLDINGS IN LCCC LIBRARY
BOOKS

	Call #
Abdominal Sonography, Koenigsburg, M., and Hoffman-Tretin, J.	617. 5507543 K78
Abdominal ultrasound : a practitioner's guide / Kathryn A. Gill;	617.55 A135
An atlas of ultrasound color flow imaging / edited by Barry B. Goldberg, Daniel A. Merton, Colin R. Deane;	616.07543 A881
Atlas of human anatomy / by Frank H. Netter ; Sharon Colacino, consulting editor;	611 N474a
Atlas of Human cross-sectional anatomy with CT and MR images, 2nd ed., Cahill, D.	611 C132a2
Atlas of Ultrasonographic Variants and Artifacts, 2nd ed., Sanders, R.	616.07543 S215
Atlas of ultrasound in obstetrics and gynecology : a multimedia reference / Peter M. Doubilet, Carol B. Benson., Philadelphia : Lippincott Williams & Wilkins, c2003.	618.2 D726
Basic Atlas of Sectional Anatomy : with correlated imaging, 2nd ed., Bo, W., et al.	611 B311
Breast imaging / Robert L. Egan;	618.19 E28
Breast ultrasound / A. Thomas Stavros	618.1 S798
Choosing assisted reproduction : social, emotional & ethical considerations / Susan Lewis Cooper, Ellen Sarasohn Glazer	618.178 C778
Ciba collection of medical illustrations,	611 N474
Ciba collection of medical illustrations / prepared by Frank H. Netter;	611 N474c2
Clinically oriented anatomy / Keith L. Moore, Arthur F. Dalley II	611 M822
Clinical Applications of Doppler Ultrasound, editors, Taylor, Burns, Wells	616.07543 c641
Clinical Doppler ultrasound / edited by Paul L. Allan [... et al.];	616.07543 C6415
Clinical guide to ultrasonography / Charlotte Henningsen ; with a foreword by Lennard D. Greenbaum;	616.07543 H517
Clinical sonography : a practical guide / editor, Roger C. Sanders ; assistant editor, Nancy Smith Miner, with Joan Campbell ... [et al.];	616.07543 C6414
Diagnostic imaging of fetal anomalies / edited by David A. Nyberg ... [et al.]. Philadelphia : Lippincott Williams & Wilkins, c2003.	618.3 D536
Diagnostic Medical Sonography: Abdomen, Kawamura, D.	617.5507543 A135
Diagnostic Medical Sonography: Obstetrics and Gynecology, Berman, M.	616.07543 O14
Diagnostic Ultrasound of Fetal Anomalies: Text and Stlas, Nyberg, David	618.3207543 N993
Diagnostic Ultrasound, Rumack, Carol	616. 07543 D536
Diagnostic Ultrasound: Principles, Instruments and Exercises, 4th ed., Kremkau, F.	616.07543 K92
Differential diagnosis in ultrasound : a teaching atlas / Guenter Schmidt ; with contributions by Barbara Beuscher-Willems ... [et al.]. Stuttgart ; New York : Thieme Medical Pub., c2006 Schmidt, Guenter.	616.07543 S351
Dorland's Illustrated Medical Dictionary, 27th ed., Dorland, W.	610.3 D711d27
Essentials of ultrasound physics / James A. Zagzebski;	616.07543 Z18
Exercises in Diagnostic Radiology, Squire, Lucy et al., 5 volumes	616.0757 E96
Fetal Echocardiography, Drose, G.	618.3 F419
Gray's anatomy	611 G779a38
Greene's Gynecology: Essentials of Clinical Practice, 4th ed., Clarke-Pearson, D.	618.1 C612
Handbook of gynecologic oncology / edited by Richard R. Barakat ... [et al.];	616.99465 H236
Manual of Ultrasound, Lutz, Harold	616.07543 L975
Melloni's Illustrated Medical Dictionary, 3rd ed., Dox, I.	610.3 d752m3
Mosby's Medical, Nursing and Allied Health Dictionary, 4th ed.	610.3 M894m4
National certification examination review : abdomen / Kerry Weinberg;	617.55 W423
National certification examination review : breast ultrasound / Catherine Carr-Hoefer, Joyce A. Grube	618.19 C311
National certification examination review : ultrasound physics and instrumentation / Sheila Hughes, Pamela Butler	616.07543 H894

National certification examination review : obstetrics and gynecology / Charlotte Henningsen	618.1 H517
National certification examination review : neurosonology / Craig Peneff, Regina Swearengin	616.804757 P398 618.178 A567 616.8 N4945
Neurosonology / [edited by] Charles Tegeler, Viken L. Babikian, Camilo R. Gomez; New conceptions : a consumer's guide to the newest infertility treatments, including in vitro fertilization, artificial insemination, and surrogate motherhood / by Lori B. Andrews;	618.1 J77
Novak's Textbook of Gynecology, 11th ed., Jones, H. Obstetrics Illustrated, 3rd ed., Garrey, M., et al.	616.2 O14
Prenatal diagnosis of congenital anomalies / Roberto Romero [et al.]; Quick Reference to Abdominal Ultrasonography, Hagen-Ansert, S.	618.2 P926 616.07543 H143q
Segmental Anatomy: Applications to Clinical Medicine, Wagner, M., Lawson, T. Selected Drugs used during Labor and Delivery: Effects on the Fetus and Neonate 2nd ed., Blum, M.	611 W134
Textbook of Diagnostic Ultrasonography, 4th ed., Hagen-Ansert, S., 2 vols. Textbook of Gynecology, Copeland, L.	618.32 B658 616.07543 H143 618.1 T355
The Developing Human: Clinically Oriented Embryology, Moore, K. The high-risk pregnancy sourcebook / by Denise M. Chism ; foreword by Eleanor D. Sabin;	612.64 M822 618.3 C542
The Obstetrician/Gynecologist in the 21st century: meeting society's needs, Wallach Transvaginal Ultrasound, Nyberg, David et al.	618.1 O14 618.047543 TT772
Ultrasound diagnosis of fetal anomalies / Michael Entezami ... [et al.] ; with contributions by U. Knoll, L. Schmitz, R.D. Wegner ; translated by Sanyukta Runkel. Stuttgart ; New York : Georg Thieme, c2004.	618.3 U47
Ultrasonography in Obstetrics and Gynecology, 3rd ed., Callen, P. Ultrasonography in obstetrics and gynecology, 4 th ed. / [edited by] Peter W. Callen; Ultrasonography of the Prenatal and Neonatal Brain, Timor Tritsch et al.	616.07543 U47 616.07543 U474 TBA
Ultrasonography: An Introduction to Normal Structure and Functional Anatomy, Curry, R., and Tempkin, B. Sonography : introduction to normal structure and function / [edited by] Reva Arnez Curry, Betty Bates Tempkin;	616.07543 U468 616.07543 U468 2004
Ultrasound of fetal syndromes / Beryl R. Benacerraf Ultrasound Exam Review: Sonographers Self-Assessment Guide, Craig, M. Ultrasound Markers for Fetal Chromosomal Defects, Snijders.	618.3 B456 616.07543 C886 618.3 S672
Ultrasound physics and instrumentation / Wayne R. Hendrick, David L. Hykes, Dale E. Starchman; Williams Obstetrics, 19th ed., Cunningham, F.	616.07543 H456 618.2 W728
<u>[videorecording]</u> Introduction to carotid duplex/color flow imaging] / [presented by] Gulfcoast Ultrasound Institute, Inc;	616.07543 I61
Venous imaging techniques [videorecording] / produced in cooperation with Advanced Technology Laboratories;	616.07548 V464
Formation of sex cells and chromosomal abnormalities , Keith L. Moore ; with the collaboration of David M. Cox and Manoranjan Ray	574.32 F7242

APPENDIX 7**Offenses That Are Absolute Bars to Clinical Education at
Community Health Partners & Allen Medical Center**

If a student has been convicted of or pled guilty to any one of the following offenses (or any substantially equivalent offense in any state), the student cannot participate in clinical education at Community Health Partners or Allen Medical Center.

<u>Based on Ohio Revised Code Offense</u>			
		2905.02	Abduction (If the victim was a minor, it is an absolute bar.)
2903.34	Patient Abuse or Neglect	2905.11	Extortion (does not apply for children)
3716.11	Adulteration of Food	2911.01	Aggravated Robbery
2903.01	Aggravated Murder	2911.02	Robbery
2903.02	Murder	2911.11	Aggravated Burglary
2903.03	Voluntary Manslaughter	2911.12	Burglary
2907.02	Rape	2919.25	Domestic Violence
2907.03	Sexual Battery	2923.161	Improperly Discharging a Firearm/Habitation or School
2907.05	Gross Sexual Imposition	2903.16	Failing to Provide for a Functionally-Impaired Person
2907.12	Felonious Sexual Penetration	2907.06	Sexual Imposition
2903.11	Felonious Assault (with a purpose to satisfy sexual needs or desires of the offender)	2907.07	Impositioning
	Division (A) Involuntary Manslaughter (with a purpose to satisfy sexual needs or desires of the offender)	2907.08	Voyeurism
		2907.09	Public Indecency
2905.01	Kidnapping (with a purpose to satisfy sexual needs or desires of the offender OR if the victim was a minor)	2907.25	Prostitution
		2907.31	Disseminating Matter Harmful to Juveniles
2905.02	Abduction (if the victim is a minor)	2907.32	Pandering Obscenity
2907.321	Pandering Obscenity Involving a Minor For older adults: Division (A) (1) or (A) (3) For children: 2907.321	2923.12	Carrying Concealed Weapons
		2923.13	Having Weapons While Under Disability
2907.322	Pandering Sexually-Oriented Matter Involving a Minor For older adults: Division (A) (1) or (A) (3) For children: 2907.322	2925.02	Corrupting Another With Drugs
		2925.03	Drug Trafficking Offenses
2907.323	Illegal Use of a Minor in Nudity-Oriented Material or Performance For older adults: Division (A) (1) or (A) (2) For children: 2907.323	2925.11	Drug Abuse
		2907.04	Corruption of Minor
2905.04	Child Stealing	2907.22	Promoting Prostitution
2905.05	Child Enticement	2907.23	Procuring
2907.21	Compelling Prostitution	2919.12	Unlawful Abortion
2919.22	Endangering Children	2919.22	Endangering Children
2903.04	Involuntary Manslaughter (Division (A) offense with a purpose to gratify the sexual needs and desires of the offender)	2919.24	Contributing to the Unruliness or Delinquency of a Child
2903.11	Felonious Assault (If done with a purpose to satisfy the sexual needs or desires of the offender.)	2925.04	Illegal Manufacturing of Drugs
		2925.05	Funding Drug Trafficking
2903.12	Aggravated Assault	2925.06	Illegal Administration of Distribution of Anabolic Steroids
2903.13	Assault	2905.12	Coercion
2903.21	Aggravated Menacing	2911.13	Breaking and Entering
2905.01	Kidnapping (If done with a purpose to satisfy the sexual needs or desires of the offender OR if the victim was a minor)	2913.02	Theft, Aggravated Theft
		2913.31	Forgery
		2913.40	Medicaid Fraud
		2913.43	Securing Writings by Deception
		2913.47	Insurance Fraud
		2921.36	Prohibition of Conveyance of Certain Items onto Grounds of Detention Facility or Mental Health or Mental Retardation and Developmental Disabilities Facility

If a student has been convicted of or pled guilty to any two or a combination of two of the following offenses (or any substantially equivalent offense in any state), the student cannot participate in clinical education at Community Health Partners.

Based on Ohio Revised Code Offense

2913.02	Theft
2913.11	Passing Bad Checks
2913.21	Misuse of Credit Cards
2913.31	Forgery
2913.40	Medicaid Fraud
2913.47	Insurance Fraud
2913.51	Receiving Stolen Property
2913.03	Unauthorized Use of a Vehicle
2913.04	Unauthorized Use of Property; Unauthorized Access to Computer Systems
2913.11	Passing Bad Checks
2913.21	Misuse of Credit Cards
2925.13	Permitting Drug Abuse
2925.22	Deception to Obtain a Dangerous Drug
2925.23	Illegal Processing of Drug Documents

Code of Ethics for the Profession of Diagnostic Medical Sonography

Approved by SDMS Board of Directors, December 6, 2006

PREAMBLE

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

OBJECTIVES

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

PRINCIPLES

Principle I: In order to promote patient well-being, the diagnostic medical sonographer shall:

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

Principle II: To promote the highest level of competent practice, diagnostic medical sonographers shall:

- A. Obtain appropriate diagnostic medical sonography education and clinical skills to ensure competence.
- B. Achieve and maintain specialty specific sonography credentials. Sonography credentials must be awarded by a national sonography credentialing body that is accredited by a national organization which accredits credentialing bodies, i.e., the National Commission for Certifying Agencies (NCCA); <http://www.noca.org/ncca/ncca.htm> or the International Organization for Standardization (ISO); <http://www.iso.org/iso/en/ISOOnline.frontpage>.
- C. Uphold professional standards by adhering to defined technical protocols and diagnostic criteria established by peer review.
- D. Acknowledge personal and legal limits, practice within the defined scope of practice, and assume responsibility for his/her actions.

- E. Maintain continued competence through lifelong learning, which includes continuing education, acquisition of specialty specific credentials and recredentialing.
- F. Perform medically indicated ultrasound studies, ordered by a licensed physician or their designated health care provider.
- G. Protect patients and/or study subjects by adhering to oversight and approval of investigational procedures, including documented informed consent.
- H. Refrain from the use of any substances that may alter judgment or skill and thereby compromise patient care.
- I. Be accountable and participate in regular assessment and review of equipment, procedures, protocols, and results. This can be accomplished through facility accreditation.

Principle III: To promote professional integrity and public trust, the diagnostic medical sonographer shall:

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

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APPENDIX 8

Scope of Practice for the Diagnostic Ultrasound Professional

Preamble:

The purpose of this document is to define the Scope of Practice for Diagnostic Ultrasound Professionals and to specify their roles as members of the health care team, acting in the best interest of the patient. This scope of practice is a "living" document that will evolve as the technology expands.

Definition of the Profession:

The Diagnostic Ultrasound Profession is a multi-specialty field comprised of Diagnostic Medical Sonography (with subspecialties in abdominal, neurologic, obstetrical/gynecologic and ophthalmic ultrasound), Diagnostic Cardiac Sonography (with subspecialties in adult and pediatric echocardiography), Vascular Technology, and other emerging fields. These diverse specialties are distinguished by their use of diagnostic medical ultrasound as a primary technology in their daily work. Certification¹ is considered the standard of practice in ultrasound. Individuals who are not yet certified should reference the Scope as a professional model and strive to become certified.

Scope of Practice of the Profession:

The Diagnostic Ultrasound Professional is an individual qualified by professional credentialing² and academic and clinical experience to provide diagnostic patient care services using ultrasound and related diagnostic procedures. The scope of practice of the Diagnostic Ultrasound Professional includes those procedures, acts and processes permitted by law, for which the individual has received education and clinical experience, and in which he/she has demonstrated competency.

Diagnostic Ultrasound Professionals:

- Perform patient assessments
- Acquire and analyze data obtained using ultrasound and related diagnostic technologies
- Provide a summary of findings to the physician to aid in patient diagnosis and management
- Use independent judgment and systematic problem solving methods to produce high quality diagnostic information and optimize patient care.

¹ An example of credentials: RDMS (registered diagnostic medical sonographer), RDCS (registered diagnostic cardiac sonographer), RVT (registered vascular technologist); awarded by the American Registry of Diagnostic Medical Sonographers,® a certifying body with NCCA Category "A" membership.

² Credentials should be awarded by an agency certified by the National Commission for Certifying Agencies (NCCA).

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APPENDIX 9**Diagnostic Ultrasound Clinical Practice Standards**

Standards are designed to reflect behavior and performance levels expected in clinical practice for the Diagnostic Ultrasound Professional. These Clinical Practice Standards set forth the standards (principles) that are common to all of the specialties within the larger category of the diagnostic ultrasound profession. Individual specialties or subspecialties may adopt standards that extend or refine these general Standards and that better reflect the day to day practice of these specialties. Certification is considered the standard of practice in ultrasound. Individuals not yet certified may reference these Clinical Practice Standards to optimize patient care.

Section 1**Patient Information Assessment and Evaluation
Patient Education & Communication, Procedure Plan****STANDARD - Patient Information Assessment & Evaluation:**

1.1 Information regarding the patient's past and present health status is essential in providing appropriate diagnostic ultrasound information. Therefore, pertinent data regarding the patient's medical history, including familial history as it relates to the diagnostic ultrasound procedure, should be collected whenever possible and evaluated to determine its relevance to the ultrasound examination.

The Diagnostic Ultrasound Professional:

- 1.1.1 Verifies patient identification and that the requested procedure correlates with the patient's clinical history and presentation. In the event that the requested procedure does not correlate, either the interpreting physician or the referring physician will be notified.
- 1.1.2 Uses interviewing techniques to gather relevant information from the patient or patient's representative and the patient's medical records regarding the patient's health status and medical history.
- 1.1.3 Assesses the patient's ability to tolerate procedures.
- 1.1.4 Evaluates any contra-indications to the procedure, such as medications, insufficient patient preparation or the patient's inability or unwillingness to tolerate the procedure.

STANDARD - Patient Education and Communication:

1.2 Effective communication and education are necessary to establish a positive relationship with the patient and/or the patient's representative, and to elicit patient cooperation and understanding of expectations.

The Diagnostic Ultrasound Professional:

- 1.2.1 Communicates with the patient in a manner appropriate to the patient's ability to understand. Presents explanations and instructions in a manner which can be easily understood by the patient and other health care providers.
- 1.2.2 Explains the examination procedure to the patient and responds to patient questions and concerns.
- 1.2.3 Refers specific diagnostic, treatment or prognosis questions to the patient's physician.

STANDARD - Analysis and Determination of Procedure Plan for Conducting the Diagnostic Examination

1.3 The most appropriate procedure plan¹ seeks to optimize patient safety and comfort, diagnostic ultrasound quality and efficient use of resources, while achieving the diagnostic objective of the examination.

The Diagnostic Ultrasound Professional:

- 1.3.1 Analyzes the previously gathered information and develops a procedure plan for the diagnostic procedure. Each procedure plan is based on age appropriate and gender appropriate considerations and actions.

- 1.3.2 Uses independent professional judgment to adapt the procedure plan to optimize examination results. Performs the ultrasound or vascular technology procedure under general² or direct³ supervision, as defined by the procedure.
- 1.3.3 Consults appropriate medical personnel, when necessary, in order to optimize examination results.
- 1.3.4 Confers with the interpreting physician, when appropriate, to determine if contrast media administration will enhance image quality and provide additional diagnostic information.
- 1.3.5 Uses appropriate technique for intravenous line insertion and contrast media administration when the use of contrast is required.
- 1.3.6 1.3.6 Determines the need for accessory equipment.⁴
- 1.3.7 Determines the need for additional personnel to assist in the examination.
- 1.3.8 Acquires prior written approval from the medical director for contrast media injection.⁵

STANDARD - Implementation of the Procedure Plan

- 1.4** Quality patient care is provided through the safe and accurate implementation of a deliberate procedure plan.

The Diagnostic Ultrasound Professional:

- 1.4.1 Implements a procedure plan that falls within established protocols.⁶
- 1.4.2 Elicits the cooperation of the patient in order to carry out the procedure plan.
- 1.4.3 Modifies the procedure plan according to the patient's disease process or condition.
- 1.4.4 Uses accessory equipment, when appropriate.
- 1.4.5 Modifies the procedure plan, as required, according to the physical circumstances under which the procedure must be performed (i.e., operating room, ultrasound laboratory, patient's bedside, emergency room.)
- 1.4.6 Assesses and monitors the patient's physical and mental status during the examination.
- 1.4.7 Modifies the procedure plan according to changes in the patient's clinical status during the procedure.
- 1.4.8 Administers first aid, or provides life support in emergency situations, as required by employer policy.
- 1.4.9 Performs basic patient care tasks, as needed.
- 1.4.10 Requests the assistance of additional personnel, when warranted.
- 1.4.11 Recognizes sonographic characteristics of normal and abnormal tissues, structures and blood flow; adjusts scanning technique to optimize image quality and spectral waveform characteristics.
- 1.4.12 Analyzes sonographic findings throughout the course of the examination so that a comprehensive exam is completed and sufficient data is provided to the physician to direct patient management and render a final diagnosis.
- 1.4.13 Performs measurements and calculations according to laboratory protocol.
- 1.4.14 Strives to minimize patient exposure to acoustic energy without compromising examination quality or completeness.

STANDARD - Evaluation of the Diagnostic Examination Results

- 1.5** Careful evaluation of examination results⁷ in the context of the procedure plan is important in order to determine whether the procedure plan goals have been met.

The Diagnostic Ultrasound Professional:

- 1.5.1 Establishes that the examination, as performed, complies with applicable protocols and guidelines.⁸
- 1.5.2 Identifies any exceptions to the expected outcome.⁹

- 1.5.3 Documents any exceptions¹⁰ clearly, concisely and completely. When necessary, develops a revised procedure plan in order to achieve the intended outcome.
- 1.5.4 Initiates additional scanning techniques or administers contrast agents as indicated by the examination and according to established laboratory policy and procedures under state law.
- 1.5.5 Notifies an appropriate health provider when immediate medical attention is necessary, based on procedural findings and patient conditions.
- 1.5.6 Evaluates the patient's physical and mental status prior to discharge from the Diagnostic Ultrasound Professional.
- 1.5.7 Upon assessment of the examination findings, recognizes the need for an urgent rather than routine report and takes appropriate action.
- 1.5.8 Provides a written or oral summary of preliminary findings to the physician.

STANDARD - Documentation

- 1.6** Clear and precise documentation is necessary for continuity of care, accuracy of care and quality assurance.

The Diagnostic Ultrasound Professional:

- 1.6.1 Documents diagnostic and patient data in the appropriate record, according to the policy and procedure of the facility.
- 1.6.2 Ensures that the documentation is timely, accurate, concise and complete.
- 1.6.3 Documents any exceptions from the established protocols and procedures.
- 1.6.4 Records diagnostic images and data for use by the interpreting physician in rendering a diagnosis and for archival purposes.
- 1.6.5 Provides an oral or written summary of preliminary findings to the interpreting physician.

Section 2

Quality Assurance Performance Standards

STANDARD - Implementation of Quality Assurance

- 2.1** Implementation of a quality assurance action plan is imperative for quality diagnostic procedures and patient care.

The Diagnostic Ultrasound Professional:

- 2.1.1 Obtains assistance appropriate personnel to implement the quality assurance action plan.
- 2.1.2 Implements the quality assurance action plan.

STANDARD - Assessment of Equipment, Procedures and the Work Environment

- 2.2** The planning and provision of safe and effective medical service relies on the collection of pertinent information about equipment, procedures and the work environment.

The Diagnostic Ultrasound Professional:

- 2.2.1 Strives to maintain a safe workplace environment.
- 2.2.2 Performs equipment quality assurance procedures, as required, to determine that equipment operates at an acceptable performance level.
- 2.2.3 Seeks to ensure that each work site in which the Diagnostic Ultrasound Professional conducts patient examinations has in place a policy manual that addresses environmental safety, equipment maintenance standards and equipment operation standards and that this policy manual is reviewed and revised on a regular basis. Knows, understands and implements the policies set forth in the work site policy manual.

STANDARD - Analysis and Determination of a Quality Assurance Plan

2.3 The Diagnostic Ultrasound Professional uses quality assurance and continuous quality improvement methods to assess and evaluate all aspects of ultrasound practice.

The Diagnostic Ultrasound Professional:

2.3.1 Strives to become knowledgeable about the theory and practice of quality assurance and continuous quality improvement methods and procedures as they are applied in the clinical environment. Works with all concerned parties to implement such methods and procedures with the objective of continuously improving the quality of ultrasound diagnostic services.

2.3.2 Compares quality assurance results to established and acceptable values.

2.3.3 Works with all concerned parties to formulate and implement an action plan.

STANDARD - Outcomes Measurement

2.4 Outcomes assessment¹¹ is an integral part of the ongoing quality assurance plan to enhance diagnostic services.

The Diagnostic Ultrasound Professional:

2.4.1 Based on outcomes assessment, determines whether the performance, of equipment and materials is in accordance with established guidelines and protocols.

2.4.2 Based on outcomes assessment, determines whether the diagnostic information provided as a result of the ultrasound examination correlates with other diagnostic testing or procedures performed on the same patient.

2.4.3 Based on outcomes assessment, determines that each test achieves the same outcome when performed by different Diagnostic Ultrasound Professionals.

2.4.4 Develops and implements an action plan when outcome measurement results are not within currently accepted tolerances.

2.4.5 Is knowledgeable of, or works with the medical director to develop, written diagnostic ultrasound procedure protocols that meet or exceed established guidelines.¹²

STANDARD - Documentation

2.5 Documentation provides evidence of quality assurance activities designed to enhance the safety of patients, the public, and health care providers, during diagnostic ultrasound procedures.

The Diagnostic Ultrasound Professional:

2.5.1 Maintains documentation regarding quality assurance activities, procedures, and results, in accordance with the established laboratory policies and protocols.

2.5.2 Provides timely, concise, accurate and complete documentation of quality assurance activities.

2.5.3 Adheres to the established quality assurance performance standards.

Section 3**Professional Performance Standards****STANDARD - Quality of Care**

3.1 All patients expect and deserve excellent care during the ultrasound examination.

The Diagnostic Ultrasound Professional:

3.1.1 Works in partnership with other health care professionals to provide the best medical care possible for all patients.

3.1.2 Obtains and maintains appropriate professional credentials.¹³

3.1.3 Adheres to the standards,¹⁴ policies,¹⁵ and procedures¹⁶ adopted by the profession and regulated by law.

3.1.4 Provides the best possible diagnostic exam for each patient by applying professional judgment and discretion.

3.1.5 Anticipates and responds to the needs of the patient.

- 3.1.6 Participates in quality assurance programs.
- 3.1.7 Stays current with required continuing medical education (CME) in order to stay abreast of changes in the field of diagnostic ultrasound and to maintain professional credentials.

STANDARD - Self-Assessment

3.2 Self-assessment is an essential component in professional growth and development. Self-assessment involves evaluation of personal performance, knowledge and skills.

The Diagnostic Ultrasound Professional:

- 3.2.1 Recognizes personal strengths and uses them to benefit patients, coworkers, and the profession.
- 3.2.2 Performs diagnostic procedures only after receiving appropriate education and supervised clinical experience.
- 3.2.3 Recognizes and takes advantage of educational opportunities, including improvement in technical and problem-solving skills and personal growth.

STANDARD - Education

3.3 Advancements in medical science and technology occur very rapidly, requiring an on-going commitment to professional education.

The Diagnostic Ultrasound Professional:

- 3.3.1 Maintains professional credentials that are specifically related to the currently practiced discipline(s).
- 3.3.2 Participates in continuing education activities through professional societies and organizations, to enhance knowledge, skills and performance.

STANDARD - Collaboration

3.4 Quality patient care is provided when all members of the health care team communicate and collaborate efficiently.

The Diagnostic Ultrasound Professional:

- 3.4.1 Promotes a positive and collaborative atmosphere with all members of the health care team.
- 3.4.2 Effectively communicates with all members of the health care team regarding the welfare of the patient.
- 3.4.3 Shares knowledge and expertise with colleagues, patients, students, and all members of the health care team.

STANDARD - Ethics

3.5 All decisions made and actions taken on behalf of the patient adhere to the *Code of Ethics*¹⁷ upon which the accepted professional standards are based.

The Diagnostic Ultrasound Professional:

- 3.5.1 Adheres to the accepted professional ethical standards as defined by the *Code of Ethics*.
 - 3.5.2 Is accountable for professional judgments and decisions, as outlined in the professional standard of ethics.
 - 3.5.3 Provides patient care with bias toward none and equal respect for all.
 - 3.5.4 Respects and promotes patients rights.
 - 3.5.5 Provides patient care with respect for patient dignity and needs.
 - 3.5.6 Acts as a patient advocate supporting patient rights.
 - 3.5.7 Adheres to the established professional performance standards of practice.
-

- ¹ **Procedure Plan:** A plan for conducting the ultrasound or related examination. The procedure plan must take into account the skills and knowledge of the Diagnostic Ultrasound Professional, the condition and history of the patient, the objectives of the examination, the diagnostic criteria, the capabilities of available ultrasound and related equipment and a wide range of other factors.
- ² **General Supervision:** the minimal level of physician supervision; physician is not required to be present in the office suite when the ultrasound procedure is performed.
- ³ **Direct Supervision:** physician must be present in office suite when ultrasound exam or vascular procedure is performed.
- ⁴ **Accessory equipment:** Equipment which extends or modifies the function of the ultrasound scanning device, or which provides ancillary or complimentary diagnostic information (i.e. non-ultrasound testing equipment).
- ⁵ **Note:** Approval of individuals for contrast media injection and IV line insertion requires that the individual have obtained education and training for this function and have demonstrated competency. The Diagnostic Ultrasound Professional is encouraged to obtain continuing medical education related to the materials being injected and the procedures being performed.
- ⁶ **Protocols:** A standardized description of the elements of a task, procedure or process; a detailed plan of a procedure.
- ⁷ **Examination results:** The ultrasound images, data and measurements which results from the examination process.
- ⁸ **Guideline:** A written document which provides suggestions (guidance) on how to accomplish a particular task, procedure or process on how to respond to specified circumstances.
- ⁹ **Expected outcome:** The expected information and data which was anticipated to have resulted from the examination.
- ¹⁰ **Exceptions:** Any elements of the examination protocol that were not performed; the Diagnostic Ultrasound Professional must document exceptions in the written summary of examination findings.
- ¹¹ **Outcome Assessment:** Assessment of an action, process or procedure based on the ultimate outcome of that action, process or procedure. In this case, the term refers to assessment of the outcome of the diagnostic test (the results of the test or the diagnosis) in comparison to other sources of information(i.e. other types of diagnostic testing) which can be used to assess the validity of the conclusions reached on the basis of the ultrasound examination.
- ¹² **Guidelines:** (Relevant to the development of diagnostic procedure protocols): Professional organizations, including the American Institute of Ultrasound in Medicine, the American College of Radiology, the American College of Obstetrics and Gynecology, the American Society of Echocardiography, the Society of Diagnostic Medical Sonography and the Society for Vascular Sonography have published guidelines for clinical ultrasound procedures.
- ¹³ **Professional Credentials:** Competency based ultrasound credentials awarded by a National Commission for Certifying Agencies (NCCA) accredited certification body; an example is the American Registry of Diagnostic Medical Sonographers (ARDMS).
- ¹⁴ **Standards:** Statements of the minimum behavioral or performance levels that are acceptable. Something established by authority as a rule for the measure of quantity or quality.
- ¹⁵ **Policies:** Written statements indicating what actions are to be taken when specific criteria are encountered. A definite course or method of action selected from among alternatives and in light of given conditions to guide and determine present and future decisions.

¹⁶ **Procedures:** Written guidelines that state how a task is to be accomplished, the specific steps to be taken, or how a policy is to be executed.

¹⁷ **Code of Ethics:** Document defining the expected professional standard of conduct for Diagnostic Ultrasound Professionals; published by the Sonography Coalition and included in the [appendix](#).

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- American Institute of Ultrasound Medicine
- American Society of Echocardiography
- Canadian Society of Diagnostic Medical Sonographers
- Society for Vascular Sonography

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APPENDIX 10

DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM CLINICAL MASTER PLAN

Semester	Lab Protocols	Assisted Clinical Competencies	Unassisted Clinical Competencies	Floating Clinical Competencies
Spring 6 hrs/wk college lab & 8 hrs/wk clinical	Basic Equipment Aorta & Abd. Vessels Liver Gallbladder Pancreas Kidneys Female Pelvis	NONE (Students perform 8 clinical hours of patient care/hospital orientation per week)	NONE	NONE
Summer 24 hrs/wk clinical	Early Obstetrics Advanced Obstetrics Scrotal Thyroid Breast	1 Easy & 1 Difficult Liver Pancreas Gallbladder Kidneys Female Pelvis/Early Ob <u>Equipment</u> Basic Equipment Evaluation at Clinical Facility	NONE	Based on Availability at Clinical Site During Summer, Fall & Spring Semesters -Must be completed for program Completion Assisted Breast Transvaginal Sterile Procedure Advanced OB -1 easy & 1 Difficult Rt. Carotid Lt. Carotid Venous Leg Specialty (Determined by clinical facility)
Fall 28 hrs/wk clinical	Orientation to Doppler Controls in lab Practice Carotids & Venous legs in lab <u>Equipment</u> Basic Equipment Evaluation at Clinical Facility	1 Easy & 1 Difficult Liver Pancreas Small Parts/Infrequent	1 Easy & 1 Difficult Gallbladder Kidneys Female Pelvis/Early Ob	Unassisted Breast Transvaginal Sterile Procedure Advanced OB -1 Easy & 1 Difficult Rt. Carotid Lt. Carotid Venous Leg Specialty (Determined by clinical facility)
Spring 30 hrs/wk clinical		Equipment Basic Equipment Evaluation & Doppler Control Evaluation at Clinical Facility	1 Easy & 1 Difficult Liver Pancreas Small part/Infrequent <u>1 of Each (2 Difficult)</u> Gallbladder Kidney Female Pelvis/Early Ob	Bonus Specialty – Additional specialty competency at a different facility – earns 2 hours off clinical time

**Lorain County Community College
Division of Allied Health and Nursing**

**Diagnostic Medical Sonography Program
Laboratory waiver**

My signature below verifies that I have had the following information explained to me, and was given the opportunity to ask any questions I wished:

General Information

The field of diagnostic medical sonography consists of physical and personal contact between the operator (sonographer or sonography student) and the patient. This physical contact includes but is not limited to moving, lifting and positioning patients, assisting them in changing clothes, using restroom facilities, bedpans, or urinals, bathing, inserting probes/catheters rectally or vaginally, touching their skin for physical assessment and scanning with the ultrasound transducer.

Live Scanning

The laboratory content of the sonography courses will contain live real-time scanning, provided that equipment is available. The students and faculty of the program will scan each other to demonstrate and promote comprehension of the material and skills necessary to perform the diagnostic sonography exams. This will entail touching of the abdominal, back, pelvic, extremities and neck areas. Also due to the nature of teaching one how to scan and provide guidance, the instructor/lab assistants will have to hold the student's hand and stand within close body distance. While the laboratory will remain professional decorum, exposing only necessary areas to be scanned, wearing gloves, and using clean linen, a student who is uncomfortable with close personal distance should notify the program faculty or lab instructor immediately.

There is also a possibility of finding pathology in a student who is being the scanning model. If pathology is identified, the student will be made aware of the finding and counseled to contact their personal physician to determine if further workup would be necessary. Because practice scanning sessions may be targeted to specific areas and are not diagnostic examinations, the possibility exists that pathology may not be seen or identified and the College, Program or Program faculty are not liable.

Biologic Effects

Ultrasound uses nonionizing energy and does not possess the effects found with ionizing energy such as radiation from x-rays. Although the possibility exists that biological effects may occur with diagnostic medical sonography, the AIUM statement on clinical safety states that within the diagnostic imaging intensity levels, no harmful effects have been known to occur since its use for medical diagnoses in the 1960s on patients or its operators.

Scanning Models

The student has the right to volunteer or not volunteer to be used as a scanning model without the fear of being ridiculed or have their decision affect his/her grade. If one does not wish to volunteer to be a scanning model, he/she should inform the instructor of their wishes.

If a student wishes to use a friend or family member for scanning practice, they may be asked to sign a similar waiver. If a volunteer for scanning practice is for obstetric practice, it is required that they have had a prior normal diagnostic ultrasound exam and provide a copy of their report before being scanned in the diagnostic medical sonography program laboratory.

Student Signature: _____ Date: _____

Signature of Witness: _____ Date: _____