



# Sanford Medical Center Fargo Sonography Program

Handbook 2023-2024

# TABLE OF CONTENTS

SPONSORING ORGANIZATION HISTORY .....	4
MISSION STATEMENT .....	5
PROGRAM GOALS .....	5
PROFESSION DESCRIPTION .....	6
ORGANIZATIONAL STRUCTURE.....	6
PROGRAM CERTIFICATE OF COMPLETION.....	7
ACCREDITATION .....	7
CERTIFICATION .....	7
ACADEMIC CALENDAR 2023-2025 .....	8
CURRICULUM .....	8
ECHOCARDIOGRAPHY COURSE DESCRIPTIONS .....	9
DIAGNOSTIC MEDICAL SONOGRAPHY COURSE DESCRIPTIONS.....	12
STUDENT POLICIES – ACADEMIC.....	14
Academic Deficiencies .....	14
Academic Honesty .....	14
Advanced Placement .....	15
Confidentiality of Records.....	15
Exam/Testing Procedures .....	15
Evaluations.....	15
Grading.....	16
Instructional Continuity Plan for Disruption of Classroom Activities .....	16
STUDENT POLICIES – ADMISSIONS .....	16
Admissions Policy Statement.....	16
Admissions Qualifications / Selection.....	16
Acceptance Fee.....	17
CPR Certification .....	17
Criminal Background Check .....	17
Student Health .....	17
Professional Liability Insurance.....	17
Professional Membership .....	17
State Licensure.....	18
Student Pictures.....	18

Technical Standards and Accommodations for Equal Opportunity.....	18
STUDENT POLICIES – ATTENDANCE AND STUDENT TIME OFF .....	19
Attendance Records.....	19
Tardiness Policy.....	19
Planned Absenteeism: Student time off (STO) .....	19
Unplanned Absenteeism: Student time off (STO) .....	19
Instructional Continuity Plan for Extended Leave of Absence.....	20
Compassionate Leave .....	20
STUDENT POLICIES – CLINICAL.....	20
Clinical Experience .....	20
Confidentiality of Medical Records.....	21
Student Injury / Exposure to Communicable Diseases.....	21
STUDENT POLICIES – CURRICULUM.....	21
Curriculum Structure.....	21
External coursework .....	21
Program Evaluations .....	22
STUDENT POLICIES – DISCIPLINE.....	22
Disciplinary Action .....	22
Student Grievances.....	23
STUDENT POLICIES – FINANCIAL.....	23
Financial Aid.....	23
Remuneration .....	23
Tuition and Student Fee Summary .....	24
Costs Incurred by Student.....	24
Withdrawal and Refund .....	24
STUDENT POLICIES – SAFETY, SECURITY, AND STUDENT LIFE .....	24
Code of Ethics and Professional Conduct .....	24
Convention / Symposium Attendance.....	24
Counseling.....	24
Drug and Alcohol Policy .....	25
Drug and Alcohol Testing .....	25
Discrimination and Harassment.....	25
Dress Code / Uniforms.....	25

Electronic Devices .....	26
Extracurricular Employment .....	27
Fire Safety Policy and Procedure .....	27
Identification.....	27
Meals.....	28
Pagers.....	28
Parking .....	28
Pregnancy.....	28
Printing / Copying .....	28
Security / Theft / Loss .....	28
Service Work .....	28
Severe Weather Information .....	29
Tobacco Use.....	29
CONTACT INFORMATION.....	30
Sanford Medical Center Fargo Sonography Program .....	30
Accrediting Agencies.....	30

This handbook provides a description of the policies, degree requirements, course offerings, and procedures of the Sanford Medical Center Fargo School of Sonography “Sanford Medical Center Fargo Sonography Program.” The Sonography Program reserves the right to change any of the policies and procedures described in this handbook and to apply these changes to any or all its students in its sole and absolute discretion. Students shall read the Sanford Medical Center Fargo Sonography Program Student Handbook and are required to comply with all policies, rules, and regulations of Sanford Medical Center Fargo and the Sonography Program.

*Upon review of the Student Handbook, the student will read and sign the “Handbook and Policy Consent Form.” This form will become part of the student’s file.*

## **SPONSORING ORGANIZATION HISTORY**

The Sonography Program is sponsored by Sanford Medical Center Fargo located in Fargo, ND. Sanford Health is a not-for-profit organization whose history dates back to the early 1900s. In 1905, two Fargo physicians, Dr. Olaf Sand and Dr. Nils Tronnes, met with civic leaders above Lars Christianson’s drug store at 10 Broadway to discuss the need for a new hospital. Uncleared land at Fargo’s northern edge emerged as the ideal location. In February 1908, St. Luke’s Hospital opened its doors. Within three days the 35-bed hospital was filled to capacity. With inspiration and foresight, Dr. Sand and Tronnes continued to forge new ground. They invited area physicians to join them in medical practice, encouraging the advancement of specialists to better meet complex needs. In 1919 they officially formed Fargo Clinic. Located next to St. Luke’s Hospital, the Fargo Clinic building opened in 1921. The innovation and leadership of these pioneering physicians set the stage for many milestones over the past hundred years. Their legacy, MeritCare Health System, became one of the nation’s first integrated health systems. In 2009, MeritCare merged with Sanford Health in Sioux Falls, South Dakota and today is an integrated health system headquartered in the Dakotas. Sanford Health became the largest employer in the Dakotas and merged with the Evangelical Lutheran Good Samaritan Society in 2018. It is a major health system that continues to grow with over 47,000 employees, 224 clinics, 47 medical centers, and 2,800 physicians and advance practice providers.

The Sanford Medical Center Fargo Sonography Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The Program provides services to the communities Sanford Health serves. The Program began in 2017, with the first class graduating in 2019. The Sonography Program allows regional employers to hire local, highly qualified sonographers to fill their employment needs. The demand for sonographers continues to grow with the continual expansion of Sanford facilities. This expansion provides students the opportunity to gain experience at a high-volume medical center while remaining in the area during the program and for future employment.

## **SANFORD HEALTH MISSION AND VISION**

Dedicated to sharing God’s love through the work of health, healing, and comfort.

Improving the human condition at every stage of life through exceptional care, spiritual enrichment, innovation, and discovery.

## **MISSION STATEMENT**

It is the mission of the Sanford Medical Center Fargo Sonography Program to provide a quality education designed to develop individuals who think critically, provide exceptional patient care, behave ethically and professionally, and are prepared for lifelong learning in the field of sonography.

To achieve these ends, we commit ourselves to support each student in their pursuit to meet the didactic and clinical competencies according to the goals and objectives of the Sonography Program and the education standards established and adopted by the sonography profession. In all areas of education, Sanford desires to communicate its distinctive philosophy of excellence and dedication to those who come to learn and to provide quality healthcare to the patients and community served.

## **PHILOSOPHY**

The Sanford Medical Center Fargo Sonography Program serves as an upper-division program teaching qualified students to become professional sonographers. Faculty offer a collegiate level program of sonography education that prepares graduates for professional practice in one or more specialties of care. The program implements its mission through a clearly defined set of objectives and outcomes that meet and exceed the “STANDARDS” for an accredited program through the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS).

The philosophy of the Program faculty is congruent with the Sonography Program mission. The faculty is committed to providing a quality sonography program, which prepares the graduate to function as an entry level sonographer in a variety of healthcare settings. The faculty exemplifies the mission of Sanford Medical Center Fargo – *Dedicated to sharing God’s love through the work of health, healing, and comfort.*

## **PROGRAM GOALS**

Program goals reflect the operation of the mission of the program, philosophy of the faculty, and the student outcomes of the curriculum. Student outcomes are available on the program website.

Goal (Diagnostic Medical Sonography): To prepare competent entry-level sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains for the Abdominal-Extended, Obstetric and Gynecologic, and Vascular Sonography concentrations.

Goal (Cardiac Sonography): To prepare competent entry-level sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains for the Adult Cardiac Sonography concentration.

Upon program completion, the graduate will be able to:

1. Demonstrate the knowledge and skill necessary for a clinically competent, safe, entry-level diagnostic medical sonographer.
2. Demonstrate effective communication and an understanding of interprofessional, ethical, legal, moral, and medical values.
3. Employ critical thinking and problem solving for decision making in sonography practice.
4. Accept responsibility for on-going professional growth and continued learning.

## **PROFESSION DESCRIPTION**

Sonography is a non-invasive, diagnostic medical imaging procedure that produces dynamic images allowing visualization of organs or systems in the body using high-frequency sound waves. The profession of diagnostic sonography is comprised of abdominal, obstetric, gynecologic, breast, musculoskeletal, vascular, and cardiac sonography. Abdominal sonography encompasses the structures of the abdomen and small parts. Obstetric/gynecologic sonography assesses the organs of the pelvis as well as fetal development and observation. Vascular sonography focuses on venous and arterial flow patterns throughout the body. Cardiac sonography, also known as echocardiography, specializes in imaging of the heart and great vessels.

Sonographers are highly skilled, board-certified professionals that provide patient services in a variety of medical settings using diagnostic techniques for interpretation by a licensed physician. Diagnostic medical sonographers are committed to enhanced patient care and continuous quality improvement that increases knowledge and technical competence. Sonographers use independent, professional, and ethical judgment and critical thinking to perform diagnostic procedures safely.

The diagnostic medical sonographer, cardiac sonographer, and vascular technologist are able to perform the following:

- Obtain, review, and integrate pertinent patient history and clinical data to facilitate optimum diagnostic results.
- Perform appropriate procedures and record anatomic, pathologic, and/or physiologic data for interpretation by a licensed physician.
- Record, analyze, and process diagnostic data and other pertinent observations made during the procedure for presentation to the interpreting physician.
- Exercise discretion and judgment in the performance of sonographic and/or other diagnostic services.
- Demonstrate appropriate communication skills with patients and colleagues.
- Act in a professional and ethical manner.
- Provide patient education to promote understanding of expectations and respond to questions regarding the sonographic examination and associated procedures.

## **ORGANIZATIONAL STRUCTURE**

The Sanford Medical Center Fargo Sonography Program faculty consists of the Sanford Diagnostic Medical Sonography Education Manager (“Program Director”), Echocardiography Concentration Coordinator, Clinical Coordinators, Faculty, and Medical Advisors. Clinical instruction is provided by qualified registered diagnostic sonographers employed by Sanford Health.

The Advisory Committee meets annually to provide guidance to assist program and sponsor personnel in formulating and periodically revising appropriate goals and learning domains, curriculum effectiveness, monitoring expectations and program outcomes, and ensuring program responsiveness to change. Members of this committee include a Program student, Program graduate, educational institute representatives, Sanford representatives, hospital care representatives, physician representatives, a public representative, and Program faculty.

## PROGRAM CERTIFICATE OF COMPLETION

The Sanford Medical Center Fargo Sonography Program is a hospital-based program, issuing a certificate upon successful completion. This certificate acknowledges that the student has completed all required coursework and clinical experiences and has completed competency requirements. Following completion of requirements, students are eligible to sit for national registry exams to become registered diagnostic sonographers upon graduation.

The Sanford Medical Center Fargo Sonography Program is affiliated with North Dakota State University (NDSU). Upon successful completion of all coursework requirements and the 21-month internship, NDSU students will graduate with a Bachelor of Science Degree in Radiologic Sciences with a sub-plan of Diagnostic Medical Sonography or Echocardiography.

## ACCREDITATION

The Sanford Medical Center Fargo Sonography Program is accredited in abdominal-extended, obstetric and gynecology, vascular, and adult cardiac sonography through the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS). CAAHEP is the only organization recognized by the U.S. Department of Education to evaluate and accredit educational programs in sonography. This accreditation ensures that the program meets educational standards and provides students the opportunity to take national registry exams upon completion.

Sanford Medical Center Fargo is accredited by the Joint Commission and the American College of Radiology (ACR). North Dakota State University is accredited through the Higher Learning Commission. Contact information for accrediting bodies is listed on page 28.

## CERTIFICATION

The American Registry for Diagnostic Medical Sonography (ARDMS) is recognized as the international standard in sonography credentialing. ARDMS grants certification in the following subspecialties: abdomen, obstetrics and gynecology, musculoskeletal, breast, pediatric sonography, registered vascular technology, adult echocardiography, fetal echocardiography, and pediatric echocardiography. Credentialed sonographers work in hospitals, outpatient clinics, private physician offices, mobile services, educational programs, and with equipment manufacturers. Registered sonographers must obtain Continuing Medical Education (CME) credits regularly and remain in good standing with ARDMS to maintain their credentials.

Certification is achieved by taking the Sonography Principles and Instrumentation (SPI) examination and boards for each specialty to become a Registered Diagnostic Cardiac Sonographer (RDCS), Registered Diagnostic Medical Sonographer (RDMS), and/or Registered Vascular Technologist (RVT). Students will be academically prepared to take the following certification examinations for their sub-plan:

<b>Echocardiography (RDCS)</b> SPI + Adult Echocardiography = RDCS (AE)	<b>Diagnostic Medical Sonography (RDMS)</b> SPI + Abdomen = RDMS (AB) OB/GYN = RDMS (OB/GYN) Vascular Technology = RVT
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## ACADEMIC CALENDAR 2023-2025

<b>Fall Term</b>	<b>2023</b>	<b>Fall Term</b>	<b>2024</b>
Term Begins	August 14	Term Begins	August 26
Labor Day Holiday	September 4	Labor Day Holiday	September 2
Thanksgiving Holiday	November 23-24	Thanksgiving Holiday	November 28-29
Term Ends	December 15	Term Ends	December 14
<b>Spring Term</b>	<b>2024</b>	<b>Spring Term</b>	<b>2025</b>
Term Begins	January 2	Term Begins	January 6
Spring Break	March 4-8	Spring Break	March 10-14
Term Ends	May 3	Class of 2025 Graduation	May 16
Class of 2024 Graduation	May 10		
<b>Summer Term</b>	<b>2024</b>		
Term Begins	May 6		
Memorial Day Holiday	May 27		
4 <sup>th</sup> of July Break	July 1-5		
Term Ends	August 23		

## CURRICULUM

The Sonography Program offers a focused track of study in either adult cardiac sonography or diagnostic medical sonography which includes abdominal-extended, obstetric and gynecology, and vascular sonography. Each concentration consists of 21 months of didactic, laboratory, and clinical training. Curriculum design provides a collegiate level program of sonographic education that adheres to the National Educational Curriculum guidelines and a clearly defined set of objectives and outcomes that meet and exceed the standards for an accredited program through the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS). Sonography Program students are scheduled full-time, requiring a 40 hour per week commitment.

<b>Echocardiography - 60 credits</b>	<b>Diagnostic Medical Sonography - 60 credits</b>
Didactic Instruction: 24 credits	Didactic Instruction: 27 credits
Scanning Lab: 10 credits	Scanning Lab: 6 credits
Clinical Training: 26 credits	Clinical Training: 27 credits

Completed hours may vary due to weather-related cancellations or approved student time off.

Students are provided with lesson plans and course syllabi that include course descriptions, credits, objectives, grading scales, reading assignments, and course schedules.

# ECHOCARDIOGRAPHY COURSE DESCRIPTIONS

## Term I

### **Foundations of Echocardiography - 2 credits**

The intent of this course is to provide an introduction to the field of echocardiography. This course will provide students with knowledge of two-dimensional imaging, spectral Doppler, color Doppler and transducer placement. The students will also be instructed in patient care, basic instrumentation and ultrasound physics, medical terminology, and medical ethics. This course provides an orientation to clinical aspects of medical imaging in a hospital environment.

### **Cardiovascular Anatomy and Physiology - 2 credits**

This course will provide knowledge on basic anatomical terminology, anatomy of the heart, and anatomy of the thoracic cavity. Information covered will include position and orientation terminology, basics of circulatory physiology, hemodynamics, the cardiac cycle, and pathophysiology.

### **Vascular Sonography I - 2 credits**

This course covers the basic principles of hemodynamics, waveform analysis, and terminology. Equipment operation and techniques in imaging and non-imaging vascular studies will be covered along with hemodynamics, anatomy, physiology, and pathology of the carotid arteries and transcranial Doppler. This course is accompanied by a scanning lab to provide the skills necessary for proper sonographic technique.

### **Scanning Lab I - 3 credits**

The intent of this course is to provide hands on learning for how to perform portions of a routine two-dimensional and Doppler echocardiogram. Scanning labs will prepare students for their clinical experience by teaching them how to obtain echocardiographic views, interrogate those views with color and spectral Doppler, and make accurate measurements. Competency testing will be completed in scanning labs.

### **Echocardiography Clinical Practicum I - 4 credits**

The purpose of this course is to provide students with the opportunity to perform portions of an echocardiogram. Students will apply skills and knowledge learned in didactic coursework and scanning lab to the clinical setting. This clinical experience will help the students become familiar with clinical sites and medical imaging. In the clinical environment, students will be directly supervised by registered cardiac sonographers.

## Term II

### **Adult Echocardiography I - 2 credits**

The intent of this course is to provide necessary education on coronary artery disease and cardiomyopathies such as dilated cardiomyopathy, hypertrophic cardiomyopathy, restrictive cardiomyopathy, arrhythmogenic right ventricular cardiomyopathy, and unclassified types. Associated clinical presentation, two-dimensional, M-mode, and Doppler findings will be discussed.

### **Adult Echocardiography II - 2 credits**

The intent of this course is to provide the student with the necessary knowledge of valvular heart disease including the echocardiographic assessment of cardiac valves using two-dimensional, M-mode, color Doppler, and spectral Doppler. Surgical intervention and post-operative assessment of valvular heart disease will be discussed. This course will also cover the necessary knowledge and skills to do a complete hemodynamic and Doppler assessment of diastolic function.

### **Adult Echocardiography III - 2 credits**

This course will provide the necessary knowledge on cardiac disease related to systemic illness, pericardial diseases, cardiac masses, and diseases of the great vessels. The students will learn the echocardiographic assessment of these conditions by two-dimensional, M-mode, and Doppler techniques.

**Scanning Lab II - 4 credits**

The intent of this course is to provide hands-on learning on how to perform a routine echocardiogram to include specific pathology protocols. Scanning Lab II will build on previous learning experience and include instruction on how to obtain echocardiographic views, and how to interrogate those views with color and spectral Doppler and make accurate measurements. Competency testing will be completed in scanning labs.

**Echocardiography Clinical Practicum II - 4 credits**

This course will continue the clinical rotation in cardiac imaging. Student participation focuses on cognitive, affective, and psychomotor skills in patient care and assessment. Students will apply knowledge to perform routine echocardiographic examinations including two-dimensional, color Doppler, and spectral Doppler. In the clinical environment, students will be directly supervised by registered cardiac sonographers.

**Term III****Adult Echocardiography IV - 2 credits**

The intent of this course is to provide the necessary knowledge on surgical and interventional procedures performed and related to the application of echocardiography. Topics include: pericardiocentesis, intracardiac echocardiography, 3-dimensional imaging, transesophageal echocardiography, contrast imaging echocardiography, strain rate imaging, valvuloplasty procedures, transcatheter aortic valve implantation, and mitral valve clip procedures. This course will also include a review of coronary artery disease, basic ECG and pharmacology, the different types of stress tests performed clinically, and the technical aspects of the equipment.

**Pediatric and Congenital Echocardiography I - 1 credit**

This course will provide the student with the basic knowledge of cardiac embryology, anatomy of congenital cardiac abnormalities, adult congenital heart disease, and patient follow-up. Students will gain an understanding of associated surgical repairs and interventional procedures. The student will also be provided information necessary to perform a systematic two-dimensional, spectral, and color flow Doppler examination on a patient with congenital heart disease.

**Scanning Lab III - 2 credits**

The intent of this course is to provide hands on learning and build on skills obtained in Scanning Lab I and II. Students will continue the development of skills needed to perform a complete hemodynamic and Doppler assessment. Competency testing will be completed in scanning labs.

**Echocardiography Clinical Practicum III - 4 credits**

This course is a competency-based clinical experience in cardiac imaging. Students will begin to integrate clinical and echocardiographic findings and identify final impressions related to the exam. Students continue all standard practices and begin to perform more complex examinations discussed in didactic courses including transesophageal, stress, contrast, three-dimensional and strain echocardiography. Students will be directly supervised by registered cardiac sonographers.

**Term IV****Pediatric and Congenital Echocardiography II - 3 credits**

This course will provide the student with the basic knowledge of acquired congenital pathologies, adult congenital heart disease, and patient follow-up. Students will gain an understanding of associated surgical repairs and interventional procedures. The student will also be provided information necessary to perform a systematic two-dimensional, spectral, and color flow Doppler examination on a patient with congenital heart disease.

**Physics and Instrumentation I - 2 credits**

Students will learn the fundamental principles of ultrasound physics. Topics will include: sound wave generation and propagation, acoustical impedance and reflection, transducer mechanics, principles of Doppler ultrasound, quality assurance, and biological and electrical safety.

**Echocardiography Concepts Review - 0 credit**

This course is a review of material covered in prior semesters and is intended to integrate knowledge from previous courses. Case reviews will be used as a learning method to help students demonstrate application of echocardiographic data, recognize discrepancies in data, identify important findings, and create a preliminary report. Students are responsible for developing their own case reviews which will involve classroom presentations and a professional research paper.

**Echocardiography Clinical Practicum IV - 7 credits**

This course is a competency-based clinical experience that strengthens the cognitive, affective, and psychomotor skill level of students in the performance of adult echocardiograms. Students will be expected to acquire a complete echocardiographic examination, interpret data, and communicate preliminary findings. Rotations will include clinic, hospital, stress, and transesophageal echocardiography. Students will be provided the opportunity for optional rotation to the pediatric echocardiography department. Students will be directly and indirectly supervised by registered cardiac sonographers.

**Term V****Physics and Instrumentation II - 2 credits**

This course will continue student's learning of the fundamental principles of ultrasound physics. Topics will include: sound wave generation and propagation, acoustical impedance and reflection, transducer mechanics, principles of Doppler ultrasound, quality assurance, and biological and electrical safety.

**Echocardiography Registry Review - 1 credit**

This course provides the student opportunities to prepare for ARDMS examinations and review concepts covered throughout the Program. Information on credentialing examinations, effective test-taking strategies, and ARDMS examination content is discussed along with review sessions and computerized review exams. The student will take computerized mock registry exams to ensure comprehension of course content.

**Professional Growth and Development - 2 credits**

This course will explore aspects of professionalism including professional interactions, responsibilities, sonographer scope of practice, credentialing, legal issues, interview and resume skills, and current sonographer workplace issues. Students will research, write, and give an oral presentation on a complex sonographic subject or emerging technology. Students will create a professional research poster based on research project content working in groups to be submitted for competition at the Midwest Society of Diagnostic Ultrasound (MSDU) Annual Spring Seminar.

**Echocardiography Clinical Practicum V- 7 credits**

Clinical Practicum V is the final clinical rotation of the Program. The student performs complex echocardiographic examinations and completes all competencies while under direct or indirect supervision by registered cardiac sonographers. Students will be expected to acquire quality echocardiographic examinations, interpret data, and communicate preliminary findings. Clinical rotations include a variety of echocardiographic examinations and procedures.

# DIAGNOSTIC MEDICAL SONOGRAPHY COURSE DESCRIPTIONS

## Term I

### **Foundations of Sonography - 2 credits**

This course offers introductory foundations in sonography with an emphasis on physical principles, orientation, scan planes, terminology, ergonomics, instrumentation, structure and function of body systems, medical ethics and professional behavior. This class includes a mixture of didactic course work, scanning labs, and clinical orientation.

### **Abdominal Sonography I - 2 credits**

This course will cover sonographic principles, anatomy, physiology, pathology, laboratory values, and basic sonographic appearance of the abdominal vessels, kidneys, adrenal glands, retroperitoneum, and spleen. This course is accompanied by a scanning lab to affirm proper technique and visualization of abdominal structures.

### **Gynecologic Sonography - 2 credits**

This course will cover sonographic principles, gynecologic anatomy, pathophysiology, and labs. Detailed instruction is given on the following topics: pelvic anatomy and physiology, uterine, ovarian, and tubal pathology, and infertility. This course also includes scanning instruction for proper sonographic technique and visualization of gynecologic structures.

### **Vascular Sonography I - 2 credits**

This course covers the basic principles of hemodynamics, waveform analysis, and terminology. Equipment operation and techniques in imaging and non-imaging vascular studies will be covered along with hemodynamics, anatomy, physiology, and pathology of the carotid arteries and transcranial Doppler. This course is accompanied by a scanning lab to provide the skills necessary for proper sonographic technique.

### **DMS Clinical Practicum I - 4 credits**

This course includes clinical rotations in abdominal-extended and vascular ultrasound and provides the student with an introduction/observation in all aspects of the medical imaging department. This course contains educational objectives and learning activities directed toward aiding the student in obtaining this goal. This clinical experience will help the students become familiar with clinical sites and medical imaging. Students will be directly supervised by diagnostic medical sonographers and registered vascular technologists.

## Term II

### **Abdominal Sonography II - 3 credits**

This course will cover sonographic principles, anatomy, physiology, pathology, laboratory values, and basic sonographic appearance of the liver, gallbladder, bile ducts, and pancreas. This course is accompanied by a scanning lab to affirm proper technique and visualization of abdominal structures.

### **Obstetric Sonography - 3 credits**

This course provides detailed instruction in embryology, normal fetal anatomy, amniotic fluid, invasive procedures, assessment of fetal age and growth restriction, placenta, umbilical cord, membranes, high-risk pregnancy, indications, and safety. The student will be able to recognize the sonographic appearance of first, second, and third trimester pregnancy. This will provide necessary information to perform and aid in interpreting normal and abnormal obstetrical ultrasound exams.

### **Vascular Sonography II - 3 credits**

This course covers the hemodynamics, anatomy, physiology, and pathology of visceral Doppler and the lower extremity venous and arterial systems. Instruction is offered on correlation of vascular ultrasound with other modalities to determine disease. This course is accompanied by a scanning lab to affirm proper scanning technique and visualization.

### **DMS Clinical Practicum II - 4 credits**

Student participation focuses on cognitive, affective, and psychomotor skills in patient care and assessment, and observing/performing sonographic examinations under direct supervision by diagnostic medical sonographers, and

registered vascular technologists. Clinical rotations provide a variety of exams including abdominal-extended, obstetric/gynecologic, and vascular ultrasound.

## Term III

### **Abdominal Sonography III - 1 credit**

This course will cover sonographic principles, anatomy, physiology, pathology, laboratory values, and basic sonographic appearance of the gastrointestinal tract, peritoneum, abdominal wall, non-cardiac chest cavity, emergency sonography, organ transplant sonography, and emerging ultrasound technologies. **Emphasis will be placed on most commonly encountered topics such as appendix, FAST scan, and transplants (renal, liver, and pancreas).** This course is accompanied by a scanning lab to affirm proper technique and visualization of abdominal structures.

### **Vascular Sonography III - 2 credits**

This course covers hemodynamics, anatomy, physiology, pathology, and scanning techniques of upper extremity arterial and venous, hemodialysis, vein mapping, and venous insufficiency exams. This course will also address test validation and quality assurance statistics.

### **Small Parts Sonography - 2 credits**

This course covers instruction on the anatomy, pathology, physiology, laboratory values, and sonographic appearance of the thyroid/neck, breast, scrotum, and prostate. Musculoskeletal ultrasound will also be introduced. This course is accompanied by a scanning lab to affirm proper technique and visualization.

### **DMS Clinical Practicum III - 6 credits**

This course is a competency-based clinical experience including abdominal-extended, obstetric/gynecologic, and vascular ultrasound examinations. Students continue all standard practices and begin to perform more complex examinations discussed in didactic courses. Students increase comfort level with sonography equipment and begin to complete sonographic examinations under direct supervision by registered diagnostic medical sonographers and vascular technologists.

## Term IV

### **Physics and Instrumentation I - 2 credits**

Students will learn the fundamental principles of ultrasound physics. Topics will include: sound wave generation and propagation, acoustical impedance and reflection, transducer mechanics, principles of Doppler ultrasound, quality assurance, and biological and electrical safety.

### **Pediatric Sonography - 2 credits**

This course covers anatomy, physiology, and pathology for pediatric patients including abdominal and renal pathology, pylorus, neonatal brain, neonatal spine, and infant hips. Instruction includes imaging techniques and sonographic appearance.

### **Fetal Anomalies - 2 credits**

This course is designed to define fetal pathologies and identify classic sonographic findings associated with cranial and neural tube defects, neck, thoracic and abdominal abnormalities, cardiac anomalies, skeletal dysplasias, and chromosomal abnormalities and syndromes.

### **DMS Concepts Review - 0 credit**

This course provides the student opportunities to review concepts taught throughout the curriculum by completing computerized review exams and case studies prepared by Davies Publishing Company.

### **DMS Clinical Practicum IV - 6 credits**

This course is a competency-based clinical experience that strengthens the cognitive, affective, and psychomotor skill level of students in the performance of abdominal-extended, obstetric/gynecologic, and vascular ultrasound examinations. Students continue all standard practices and perform more complex examinations discussed in didactic courses. Students

complete sonographic examinations under direct or indirect supervision by diagnostic medical sonographers and registered vascular technologists.

## Term V

### **Physics and Instrumentation II - 2 credits**

This course will continue student's learning of the fundamental principles of ultrasound physics. Topics will include: sound wave generation and propagation, acoustical impedance and reflection, transducer mechanics, principles of Doppler ultrasound, quality assurance, and biological and electrical safety.

### **DMS Registry Review - 1 credit**

This course provides the student opportunities to prepare for ARDMS examinations and review concepts covered throughout the Program. Information on credentialing examinations, effective test-taking strategies, and ARDMS examination content is discussed along with review sessions and review exams. The student will take both written and computerized mock registry exams to ensure comprehension of course content.

### **Professional Growth and Development - 2 credits**

This course will explore aspects of professionalism including professional interactions, responsibilities, sonographer scope of practice, credentialing, legal issues, interview and resume skills, and current sonographer workplace issues. Students will research, write, and give an oral presentation on a complex sonographic subject or emerging technology. Students will create a professional research poster based on research project content working in groups to be submitted for competition at the Midwest Society of Diagnostic Ultrasound (MSDU) Annual Spring Seminar.

### **DMS Clinical Practicum V - 7 credits**

Clinical Practicum V is the final clinical rotation of the Program. The student performs complex sonography examinations and completes all competencies while under direct or indirect supervision by registered diagnostic medical sonographers and vascular technologists. Clinical rotations include a variety of abdominal-extended, obstetric/gynecologic, and vascular ultrasound examinations.

## **STUDENT POLICIES – ACADEMIC**

### **Academic Deficiencies**

A 2.0 GPA average is required academically and clinically for graduation. In addition, a passing grade for each course of 75% (C) or higher is required. A student receiving scores of less than 75% (C) will be placed on academic warning or probation. The student is required to meet with course faculty and the Program Director to develop an action plan for academic improvement. If performance does not improve, the Disciplinary Policy will be utilized which may result in suspension or dismissal.

### **Academic Honesty**

The Sanford Sonography Program holds all students to a high academic and personal standard. The value of education depends on the integrity of the work completed and demonstration of knowledge attained by the student. Students are expected to adhere to Sanford and NDSU policies.

**The Sanford Sonography Program expects each student to be honest in academic performance. Failure to do so will result in disciplinary action. The most common forms of academic dishonesty are cheating and plagiarism.**

Cheating includes but is not limited to:

- Using information or devices that are not allowed by the faculty; such as using formulas or data from a computer program/artificial intelligence, or using unauthorized materials for an assignment or exam; or,
- Obtaining and using unauthorized material, such as a copy of an examination before it is given; or,

- Fabricating information, such as data for a lab report; or,
- Violating procedures prescribed to protect the integrity of an assignment, test, or other evaluation; or,
- Collaborating with others on assignments without the faculty's consent; or,
- Cooperating with or helping another student to cheat; or,
- Other forms of dishonest behavior, such as having another person take an examination in your place, altering exam answers and requesting the exam be re-graded, or communicating with any person other than the exam proctor or faculty during an exam.

Plagiarism includes but is not limited to:

- Directly quoting the words of others without using quotation marks or format to identify them; or,
- Using sources of information (published or unpublished) without identifying them; or,
- Paraphrasing materials or ideas of others without identifying the sources.

Students are encouraged to consult with faculty to develop:

- Correct procedures for citing sources of information, words and ideas.
- Ways to properly credit collaborative work with project team or study group members.
- Strategies for planning and preparing for exams, papers, projects and presentations.
- Alternative procedures for quiz/exam conditions in classroom environment where cheating has been observed.

### **Advanced Placement**

The Sanford Sonography Program does not offer or allow the opportunity for advanced placement in the Program. All students are subject to the same academic content regardless of prior learning or work history.

### **Confidentiality of Records**

The Sanford Sonography Program complies with the [Federal Education Rights and Privacy Act of 1974](#) (FERPA) which protects the privacy of education records, establishes the right of students to inspect and review their educational records, and provides guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Student records are maintained electronically and/or in a locked file cabinet in the Program Director's office. A student may review only approved files with the Program Director present. The student file contains application forms, transcripts, release forms, and progress reports. Written consent of the student must be obtained before any personally identifiable information is released, other than the specified list of exceptions in the Act.

### **Exam/Testing Procedures**

Student performance in courses will be assessed by frequent examinations. Students are expected to perform their own work on examinations. Any evidence of dishonesty or cheating will be grounds for immediate failure of the examination, the course, and/or dismissal from the Program. Students requiring any special accommodations during testing are encouraged to notify the Program Director at the start of the Program. In order to keep examinations confidential, students will not be allowed to keep individual examinations. Students may review completed examinations upon request.

### **Evaluations**

The Sanford Sonography Program is committed to recognizing achievement and personal growth as well as identifying areas of improvement. Students will be scheduled for end of term evaluations with Program faculty. The primary purpose of these evaluations is to provide feedback to the student on academic and clinical performance. Students are encouraged to use the evaluation time to offer feedback to faculty and discuss any concerns they may have. This is also an opportunity for students to identify and assess academic progress and personal growth. Throughout the Program, students are



continually given feedback on level of clinical ability and performance from the Program Director, faculty, clinical instructors, and physicians. On-going communication between the Program Director, faculty, clinical instructors, and students is maintained and encouraged. Students may request appointments with faculty for additional guidance. Professional communication is expected at all times.

### **Grading**

Grading procedures for each classroom, laboratory, and clinical course are available on course syllabi. Grades for each course will be reported as A, B, C, D, P, or F. Student grades are accessible electronically on the Program's online learning management system. Final student grades will be reported to the NDSU registrar's office at the end of each academic term and will appear on the NDSU transcript.

### **Instructional Continuity Plan for Disruption of Classroom Activities**

In the event in-person classes are not able to occur, the instructor will communicate with the student via email or phone. Depending upon the nature of the classroom disruption, students should allow 48-72 hours for communication. During a campus closure, course content will be delivered as the instructor deems appropriate. If the internet is disabled, students are expected to use the required textbook identified on the syllabus to supplement their lecture handouts. If the classroom disruption coincides with the time an assignment is due or on an exam day, alternative arrangements will be made and communicated to the student as described above. Online courses will be scheduled at the discretion of program faculty. Lastly, depending upon the nature and length of classroom disruption, course requirements may be modified, and grading adjusted accordingly. Any modifications in course requirements or grading will be communicated to the student as described above.

## **STUDENT POLICIES – ADMISSIONS**

### **Admissions Policy Statement**

The Sonography Program provides equal treatment for all applicants without regard to race, creed, religion, national origin, sex, sexual orientation, gender identity, age, familial status, military/veteran status, or any other status protected by applicable local, state, or federal law; provided that the applicant meets the qualifications as set forth by the Sonography Program. Sanford is committed to actively supporting an environment which provides qualified applicants with equal opportunity on a nondiscriminatory basis.

### **Admissions Qualifications / Selection**

To be eligible for admission, students must have a high school diploma or its equivalent, complete all prerequisite college courses, earn a minimum core and cumulative grade point average of 3.0, achieve grades of "C" or better in all courses used to fulfill major and degree requirements, meet program-designated technical standards or requested reasonable accommodations, and comply with criminal background and student conduct requirements. Admission decisions include a review of high school performance, college performance, references, work experience, interview scores, and an entrance examination. Informational sessions are available for prospective students prior to the application deadline.

At times, admission may be offered to an applicant on a conditional basis. In the acceptance letter, the applicant will be notified of requirements that need to be met prior to the Program start date. Failure to successfully complete any of these requirements will result in forfeiture of their position in the Sonography Program. Academic deficiency at affiliated universities will jeopardize a student's continued enrollment in the Sonography Program.

## **Acceptance Fee**

Upon notification of admission, students will be sent an acceptance agreement which requires a nonrefundable \$200 acceptance fee to reserve their placement in the program. This acceptance fee will be applied toward the Sonography Program student fees. Applicants are informed of Sonography Program student fees during informational meetings and prior to acceptance to the program.

## **CPR Certification**

Students are required to be certified in Basic Life Support through the American Heart Association or American Red Cross during the Program. Prior to the start of clinical rotations, students must provide evidence of certification to the Sanford Sonography Program.

## **Criminal Background Check**

Criminal background checks are completed in accordance with [NDSU CHP Policy 3.08](#). The national certification organization (ARDMS) provides a [Pre-Application Determination of Eligibility for ARDMS Certification: Criminal Matters form](#) to verify eligibility of applicants who have a history of criminal charges. Pre-application verification for certification test eligibility is the sole responsibility of the candidate and/or student prior to and during participation in the Sonography Program. Applicants who have questions regarding how these issues may affect ability to earn certification credentials or obtain employment in the profession should discuss this matter with a Program official prior to beginning the Program.

## **Student Health**

The Sonography Program encourages students to make choices that promote and safeguard their mental and physical health. Optimal health and well-being require proper physiologic care in nutrition, sleep, relaxation, and exercise. To expect optimal learning performance, students must take responsibility to practice a prudent lifestyle. If a student is ill, staying home to avoid exposing patients and coworkers is expected per Sanford policy.

Students are required to carry medical insurance throughout the Program and are responsible for full payment of all hospital, emergency room visits, walk-in clinic visits, and physical examinations. Proof of insurance is required prior to start date. Vaccinations are required for all Sanford employees and students. Exemptions must be submitted annually.

If accepted into the Program, an e-mail will be sent to each student requesting the following:

- 1) HIPAA training;
- 2) Immunization verification form, which includes proof of immunity to measles, mumps, rubella and varicella (chicken pox) through either vaccination or a titer;
- 3) Documentation of TB test results that are dated within 1 year prior to start date; and
- 4) Student orientation to Sanford policies and procedures.

Documentation must be submitted by the deadline provided.

## **Professional Liability Insurance**

Students are required to have professional liability insurance. NDSU students are covered by the NDSU student professional liability policy.

## **Professional Membership**

Application for student membership of the Society of Diagnostic Medical Sonography (SDMS) or American Society of Echocardiography (ASE) will be completed during the Program. Cost is included in Sonography Program student fees.

## **State Licensure**

Students must perform clinical work under the supervision of a licensed diagnostic sonographer and do not need an individual license to complete the requirements of the Program. Students who begin working as a diagnostic sonographer in the state of North Dakota will need to obtain licensure through the state prior to employment. Visit the North Dakota Medical Imaging and Radiation Therapy (NDMIRT) [website](#) for additional details.

## **Student Pictures**

Photos of students will be posted electronically and in the Sonography and Echocardiography departments to assist staff and instructors in identification of students. Additional photos taken may be used for Program advertisement or recruitment efforts. A photo permission waiver will be provided during Program orientation.

## **Technical Standards and Accommodations for Equal Opportunity**

Technical standards are utilized to identify which students will need assistance in performing tasks and to identify students who would be unable to perform the job of a sonographer prior to Program entry. Sanford does not discriminate against any qualified applicant because of a disability or perceived disability. Qualified applicants must be able to perform the essential job functions with or without reasonable accommodation provided that the accommodation does not create an undue hardship on Sanford. The determination as to whether to provide accommodation, or whether a particular accommodation is reasonable, is made by Sanford on a case-by-case basis, in accordance with applicable law.

### **Physical, motor and tactile requirements**

- Stand and walk for extended periods of time
- Mobility and strength to assist in patient transfers and position changes
- Move (push and/or pull) and carry equipment for use in patient care areas
- Perform multiple motor tasks simultaneously
- Possess fine motor skills, manual dexterity, and steady arm/hand movements to obtain diagnostic images

### **Visual acuity requirements**

- Monitor and assess patients and equipment function
- Read written and printed words, fine print and digital displays
- Recognize and image normal and abnormal anatomy utilizing sonographic equipment in low light
- Differentiate colors and shades of gray

### **Speaking and hearing requirements**

- Communicate effectively with patients and personnel, both face-to-face and by phone
- Hear and understand patients, visitors, and Sanford personnel
- Hear audible alarms and audio signals produced by spectral Doppler
- Obtain accurate patient blood pressure with stethoscope and continuous-wave Doppler equipment

### **Interactive requirements**

- Follow written and oral instructions
- Comply with institutional dress code, including specific dress requirements of unique patient care units (i.e., surgical attire in the operating room, short sleeves in the NICU, etc.)
- Comply with infection prevention strategies (hand hygiene, personal protective equipment, and isolation)
- Exhibit empathy, compassion, integrity, and concern for patients, visitors, and Sanford personnel
- Accept constructive criticism and implement suggestions to improve performance

- Maintain patient confidentiality, honesty, and ethical standards
- Manage time, organize workload, and meet deadlines
- Exercise good judgment in responding to emergent situations
- Function effectively in high-stress environments

## **STUDENT POLICIES – ATTENDANCE AND STUDENT TIME OFF**

### **Attendance Records**

Attendance in classroom, laboratory, and clinical activities is **mandatory**. Students are expected to plan responsibly to allow themselves to be ready for class, lab or clinical to begin at the scheduled time. Classroom and laboratory attendance, tardiness, and absenteeism is recorded by Program faculty. Student clinical attendance records will be maintained using the Trajecsyst reporting system. This electronic system will be accessible to both students and Program faculty.

### **Tardiness Policy**

Students are expected to be present for all clinical and classroom assignments in a timely manner.

- Students must be on time for all scheduled classroom and scanning lab activities.
- Students must be clocked in, wearing the appropriate uniform for their clinical rotation, and in their assigned clinical area before the start of the clinical rotation.
- Clinical time records are documented on Trajecsyst. Students must clock in and out utilizing a Sanford computer.
- Students are allowed to clock in up to 4 minutes prior to the scheduled clinical shift. For example: if scheduled to start at 7:30, the student would have from 7:26-7:30 to clock in.
  - If a student forgets to clock in but was in the clinical area on time, a time exception may be entered for approval by the assigned clinical instructor.

Tardiness will not be tolerated. STO will be deducted in 30 minute intervals for tardiness of 15 minutes or more.

If a student is routinely tardy, disciplinary action will take place.

- If a student has 3 occurrences of tardiness, a written warning will be given.
- The 4<sup>th</sup> occurrence will result in a loss of 8 hours of personal time.
- The 5<sup>th</sup> and subsequent occurrences will result in an additional loss of 8 hours of personal time and a 5% deduction in overall clinical grade.

### **Planned Absenteeism: Student time off (STO)**

Students are given 24 hours of personal/sick leave with the opportunity to earn up to 16 additional hours, for a total of 40 hours for the duration of the 21-month Program. Any planned time off must be requested in advance and approved prior to the requested date. Student requests for time off from regularly scheduled activities must be submitted via the Trajecsyst system, preferably at least two weeks prior to the date(s) the student will be absent. Approval and accommodation of each request will be handled on an individual basis. Requests for time off may be denied if the student is not meeting academic and clinical expectations. In the event of medical or family emergencies that require a leave of absence, refer to the unplanned absenteeism policy.

### **Unplanned Absenteeism: Student time off (STO)**

**Absence from lecture, clinical, or lab time should be reported to the Program office (701-234-6340) not less than one hour before the student is due to report.** Notify both Program faculty and the appropriate clinical site when assigned to a clinical rotation. If lecture time is missed, it is the responsibility of the student to get notes on material missed. If clinical

time is missed, please contact Program faculty regarding options to make up the time. Illness should be reported promptly and missed class or clinical time must be submitted via the Trajecsys system. If a student is concerned about having a contagious illness, they should report it to the Program Director to determine when it is appropriate to return. If an extended medical leave is necessary, refer to the Instructional Continuity Policy. Improper use of student time off will result in disciplinary action.

### **Instructional Continuity Plan for Extended Leave of Absence**

In the event a student becomes ill, hospitalized, contracts a contagious disease, or has a medical condition which precludes them from physically coming to class for a week or longer, the instructor will provide reasonable accommodations to ensure instructional continuity provided the student:

- 1) Notifies the instructor within 48 hours of the absence to request an alternative course delivery method;
- 2) Identifies the reason for and anticipated length of the absence; and
- 3) Communicates regularly with the instructor during the absence

Extended leave requiring forty (40) or more consecutive hours of absence may be utilized only once during the 21-month program. This leave allows a student to be absent for up to, but no more than, two consecutive weeks. Time used during this type of leave must be made-up at the discretion of the Program Director.

### **Compassionate Leave**

In the event of a death in the student's immediate family, compassionate leave may be granted. Immediate family includes the student's significant other, parent, child, grandparent, or sibling. It is the responsibility of the student to notify the Program Director for approval. The student will be granted up to 3 days for compassionate leave. These hours do not affect STO balance and do not need to be made up. Arrangements will need to be made to complete missed assignments.

## **STUDENT POLICIES – CLINICAL**

### **Clinical Experience**

Clinical education occurs throughout the program and provides an environment of supervised, competency-based experience with a variety of sonographic examinations and equipment. Clinical education combines cognitive, psychomotor, and affective aspects of the profession. Student performance in these areas will be assessed routinely by qualified clinical instructors. Prior to the beginning of each clinical practicum, the syllabus is distributed with specific grading policies. Clinical grades include exam critique, scanning assessments, case presentations, clinical evaluations, competency completion, and scanning participation. Clinical competency is required for programmatic completion. Detailed clinical practicum grading criteria and clinical competency guidelines will be provided while enrolled in the Program.

Registered sonographers from each clinical location are selected to serve as the designated clinical instructors for students during clinical rotations. Experienced, qualified sonographers employed by the department are eligible to serve as clinical instructors. For each clinical rotation, clinical instructors are assigned to supervise, instruct, and evaluate student performance on procedures, techniques, and professional characteristics. The supervision policy will be distributed and signed by all students and clinical instructors. All parties are responsible to review and adhere to the policy. Failure to adhere to the supervision policy will result in disciplinary action.

## **Confidentiality of Medical Records**

All students are expected to maintain privacy and confidentiality of patient records at all times in compliance with Health Insurance Portability and Accountability Act ([HIPAA](#)) standards and Sanford policies. The purpose of HIPAA privacy and security standards is to prevent inadvertent or inappropriate use and disclosure of an individual's health information, to establish individual rights to health information, and to require organizations and providers that use health information to adopt safeguards to protect health information. It is never appropriate to share information about a patient, resident, or client of Sanford unless necessary for treatment or for educational purposes. It is also important that any information students have access to is not abused for self, relatives, friends, or acquaintances. Students should not participate in care of relatives, friends, or acquaintances. Any breach in HIPAA will be grounds for disciplinary action.

## **Student Injury / Exposure to Communicable Diseases**

Sanford has a commitment to provide a safe working environment. To accomplish this goal, information will be provided during clinical orientation that explains the nature of occupational exposures to communicable diseases and a description of universal precautions. Students will be provided appropriate personal protective equipment during scanning lab and while in clinical rotations.

Students must report injuries or potential exposure to assure appropriate follow-up, as defined in the Sanford exposure protocol. Students should seek assistance from Program faculty or clinical preceptor immediately following an injury or potential exposure so an Injury/Exposure Incident Report can be completed, and the appropriate follow-up and protocols can be implemented. The primary action following an accident, injury, or exposure is to assure that the student receives prompt treatment. A report is required for every accident, injury, and exposure of an associate, patient or visitor to an environmental condition that may be hazardous to the associate's health. These reports are to be completed as soon as possible following the incident. Employee Health Services may be reached at (605) 333-6333. In the event of a serious injury, students should report to the emergency room or call 911. Any costs incurred are the responsibility of the student.

## **STUDENT POLICIES – CURRICULUM**

### **Curriculum Structure**

The three major components to the curriculum are didactic, laboratory, and clinical instruction. Students are taught concepts, techniques, and protocols in the classroom setting. Laboratory time is provided for the student to develop proficiency in related procedures for which competency will be assessed during clinical rotations and during graded scanning labs. Open lab time is available and encouraged for additional scanning opportunities.

Students are provided with syllabi that include course description, objectives, methods of evaluation, topic outlines, and competencies required for graduation. The instructor will explain the grading policies for each course in initial class meetings. Laboratory time is in sequence with classroom instruction to allow students to develop and demonstrate proficiency in techniques and procedures. Students will be provided with objectives for each clinical rotation. Clinical rotations provide students with the opportunity to gain experience in patient care under the supervision of a clinical preceptor. Competencies in specific procedures are required during clinical rotations. Clinical exam records are documented in Trajecsyst and include level of scanning participation, length of exam, clinical performance, and completed competencies.

### **External coursework**

No external classes may be taken during the Program, unless prior approval is granted by the Program Director.

## Program Evaluations

The Sanford Sonography Program operates under the principle of outcome orientated education. This means that all resources and outcomes are continually evaluated as to their effectiveness in allowing the Program to reach its goal of producing competent sonographers.

Students are active in Program evaluation and complete the following:

- 1) Course and Instructor Evaluations
- 2) Laboratory Evaluation
- 3) Clinical Instructor Evaluations
- 4) Exit Evaluation – Medical Advisor, Facility, Laboratory, Library, Clinical Resources and Physician Input
- 5) Graduate Competency Survey (6-12 months following graduation)

The Program and its resources are also evaluated by faculty, clinical instructors, medical advisors, advisory committee members, and graduate employers. Additionally, outcomes are measured by monitoring student retention, job placement, and credentialing success rates. An annual report is compiled and used for Program improvement. Program outcomes are publicly available on the [Program website](#).

## STUDENT POLICIES – DISCIPLINE

### Disciplinary Action

Students are required to abide by policies and procedures of Sanford Medical Center Fargo System and the Program. Students are also expected to abide by the Code of Ethics of the Society of Diagnostic Medical Sonography. Failure to adhere to these may result in disciplinary action against the student. The student discipline procedure is initiated when the student displays substandard or inappropriate performance academically, behaviorally, or clinically. Initiation of discipline is at the discretion of the Program Director or Program faculty. The reporting and disciplinary process is outlined below. NDSU students will also follow [NDSU CHP Policy 3.01](#).

Disciplinary action may include any of the following:

- 1) **Academic Warning / Probation** - indicates that continued enrollment is dependent upon improvement. A verbal or written warning is provided indicating the area in need of improvement to attain satisfactory progress. An action plan will be developed with program faculty to provide a timeline for improvement.
- 2) **Suspension** - occurs when an incident requires thorough investigation and a student is suspended from the Program for a specified period of time. It may also be used in cases of serious infractions where dismissal is being considered. Written notification of reason for suspension and a timeline is provided to the student. All time missed due to suspension will be made up at the discretion of the Program Director.
- 3) **Expulsion / Dismissal** - is the denial of the right to continue to participate in the Program. Termination from the Program will result if the Program Director determines progress unsatisfactory or for behavioral reasons including, but not limited to:
  - Unprofessional or unethical behavior
  - Academic failure or failure to maintain progress in clinical competency
  - Violations of personal and professional conduct, scholastic honesty, or public law
  - Repeated tardiness and absenteeism
  - Abuse of alcohol and/or drugs

The Disciplinary Procedure follows this sequence:

- 1) Upon notification of substandard or inappropriate behavior to the Program Director, a meeting is scheduled with the student to discuss the matter. The purpose of this meeting is to verbally inform the student of substandard or inappropriate behavior. This discussion is documented and placed in the student's file. All information for students enrolled at NDSU will also be released to the NDSU Director of Allied Sciences.
- 2) If the substandard or inappropriate behavior occurs again, a second meeting is scheduled. At this time, the Program Director provides the student with a document that lists the instances of substandard or inappropriate behavior, methods of improvement, and a timetable for demonstration of improvement. The student is placed on probation. A copy of this document is provided for the student, with the original placed in the student's file.
- 3) If the student fails to rectify the substandard or inappropriate behavior within the time period agreed upon, the student will be dismissed from the Program.

Immediate termination may result if the student demonstrates carelessness regarding the safety of the patient and/or fellow personnel or demonstrates grossly unethical or unprofessional conduct. Immediate termination also results if the student reports to duty while under the influence of alcohol or any mind-altering substances.

### **Student Grievances**

A grievance is defined as any academic or nonacademic problem resulting from an alleged unfair, inequitable, or discriminatory interpretation, application or implementation of a policy or procedure. Students who feel they have been treated unfairly in relation to academic rules, guidelines, and regulations have the right to report their problem, complaint, or disagreement to the Program in a timely, non-disruptive manner. Students should refer to the following process:

- 1) The student discusses the issue with the person involved.
- 2) If the student is not satisfied with the response, they are to state the issue and requested resolution in writing to the Program Director. The Grievance Resolution Form is available for this purpose. The Program Director will review the information and investigate further, if necessary, and will provide the student with a written response to their concern. All information is considered confidential and will only be discussed with those involved in the process.
- 3) If the student is not satisfied with the response, the process may continue to be presented to the advisory committee. The final decision will be made at this level and is a closed hearing. The final decision is binding.
- 4) Discrimination complaints are to be filed directly with Human Resources at Sanford Medical Center Fargo.

## **STUDENT POLICIES – FINANCIAL**

### **Financial Aid**

Sanford Health does not provide financial aid assistance. Financial aid information may be obtained from the [NDSU Student Financial Services Office](#). Students may be eligible for financial aid at NDSU during the Program.

### **Remuneration**

This is not a paid Program. Students cannot receive remuneration for any time completed during the Program. Students may not accept donations of money or other in-kind gifts from patients or vendors. The student is expected to return any gift or gratuity to the patient or vendor and indicate that Sanford Health policy precludes acceptance. If the patient or vendor refuses to take back the gratuity or gift, the student is to inform the patient or vendor that the gift will be donated to the Sanford Health Foundation in their name and the Foundation will provide them with appropriate documentation.



## **Tuition and Student Fee Summary**

For the duration of the Program, students enrolled in course credit at NDSU will pay student fees and tuition at their regular resident rate to NDSU. NDSU tuition and fee rates are detailed at [OneStop](#). In addition, students will pay a tuition fee of \$2,000 directly to Sanford Health. The Sanford student fees offset the Program costs for student resources, lab supplies, mock board exams, professional memberships, and graduation expenses. Sanford Health Accounts Payable Department will invoice each student for student fee payment. Sanford student fees must be paid in full by September 30<sup>th</sup> of the acceptance year. Failure to pay in full by the deadline may result in forfeiture of the position within the Program. Sanford student fees are non-refundable. Books required for the Program are listed by the Program faculty and must be purchased by the student.

## **Costs Incurred by Student**

### **(not included in Tuition/Fees)**

Books: \$450-700 (used pricing may be available)

Scrubs: approximately \$100-200

Midwest Society of Diagnostic Ultrasound Annual Conference attendance: meals, mileage, etc.

ARDMS Board Examinations: \$250 SPI exam + \$275 for each specialty board exam

ND State License Fees: conditional license for new graduates \$175

## **Withdrawal and Refund**

There is no refund for any fees paid directly to the Sanford Medical Center Fargo Sonography Program. Withdrawal and refund of tuition at NDSU will be in accordance with published dates and deadlines. Upon withdrawal, the ID, parking permit, pager, and RTLS badge are to be returned to and computer access will be revoked immediately.

## **STUDENT POLICIES – SAFETY, SECURITY, AND STUDENT LIFE**

### **Code of Ethics and Professional Conduct**

Students are required to abide by policies and procedures of Sanford Health and the Sonography Program. In addition to these policies, students are also expected to adhere to the Society of Diagnostic Medical Sonography (SDMS) [Code of Ethics for the Profession of Diagnostic Medical Sonography](#) in their professional interactions. Failure to adhere to these policies may result in disciplinary action or dismissal from the Program. In all cases, students have the right to appeal all unfavorable evaluations, disciplinary actions, and dismissals.

### **Convention / Symposium Attendance**

Students are required to attend a convention or educational symposium during the Program. Typically, this is the Midwest Society of Diagnostic Ultrasound annual conference. The registration fee for the convention is included in the Program student fees. Attendance at the educational activities of the convention is mandatory. Scheduled dates will be listed on the Program calendar. As representatives of the Sanford Medical Center Fargo Sonography Program, professional dress and behavior is expected at all events.

### **Counseling**

Enrolled students are eligible to use the Sanford Employee Assistance Program (EAP). The EAP is a free and confidential professional support service that is available 24 hours a day, 365 days a year. Services include counseling and related services. To use the EAP service, contact the Program Director for log-in information. Counseling services are also available

through the NDSU Counseling Center. In some situations, the Program Director may require a student to attend counseling sessions for continuation in the Program.

### **Drug and Alcohol Policy**

Sanford maintains a drug and alcohol-free environment. No employee or student may use, possess, distribute, divert or sell illegal drugs or have any detectable amount of alcohol in their system while on the job or on Sanford properties. The use of legal prescription drugs is permitted only if it does not affect performance or endanger others. It is the responsibility of the student to notify the Program Director if taking any over-the-counter or prescription medication that may interfere with the ability to perform safely and adequately. Sanford Health reserves the right to investigate Sanford-owned sites and any property on the premises to determine a violation of this policy.

### **Drug and Alcohol Testing**

Drug and alcohol tests may be required to support a drug and alcohol-free environment. Drug or alcohol tests may occur for suspected drug diversion or for reasonable suspicion. Sanford will not discriminate against students based on their status as a medical marijuana cardholder, but students will be subject to corrective action for being under the influence of marijuana at any location. Violations of this policy may lead to corrective action, up to and including termination. Failure to comply with a test request will result in termination. Any violation of a criminal drug statute must be reported to the Program Director within five days of the conviction. Failure to inform Sanford of the conviction may result in corrective action up to and including termination.

### **Discrimination and Harassment**

Sanford is committed to providing a workplace that is free of harassment and abusive or disruptive conduct. Harassment includes verbal or physical conduct designed to threaten, intimidate, or show hostility toward an individual, or conduct that otherwise creates a hostile, intimidating, or offensive environment. Sexual harassment is strictly forbidden. It is the policy of the Program that all students are able to study in an environment based on respect and courtesy that is free from unsolicited and unwelcome sexual innuendo. Any student who feels they are a victim of discrimination or harassment has a responsibility to report the situation to the Program Director. Sanford will not retaliate, or tolerate retaliation, against any employee/student who makes a complaint or participates in an investigation pursuant to this policy in good faith.

### **Dress Code / Uniforms**

Students are expected to represent Sanford Health professionally both in appearance and interactions with patients, visitors, medical staff, and hospital personnel. The uniform policy requires that students be clean and well groomed. During classroom and lab sessions, students may dress in business casual attire or designated scrubs. Clinical site rotations require designated scrubs to be worn.

The Program's policy regarding professional appearance outlines the acceptable uniform for students.

- *Appearance and Hygiene:* Authorized attire will be kept neat and clean. Scrubs and undershirt should fit and cover properly. Scrub pants should not touch the ground. In the event apparel becomes soiled or damaged, arrangements should be made to change apparel. Personal cleanliness will be maintained by bathing regularly. Oral hygiene (brushing of teeth) is required. Deodorant / antiperspirant will be used to minimize body odors. Cosmetics are to be worn conservatively.
- *Designated scrubs:* Dark gray scrubs are the required uniform for clinical rotations and may be purchased at any uniform shop. White or gray t-shirts may be worn under the scrub shirt with no visible logos. T-shirts are to be tucked in. Hospital owned scrubs are for in-house wear only and are provided by a scrub dispensing unit.

- *Fingernails*: Hand hygiene policies must be followed at all times. Nails should be well kept and less than ¼ of an inch in length. Artificial nails, add-ons or extenders are not to be worn by individuals that provide patient/resident/client care, handle patient/resident/client care equipment/ supplies or food. If nail polish is worn, it must be free of chips or cracks due to potential harboring of bacteria. Artificial nails are defined as substances or devices applied to natural nails to augment or enhance nails including, but not limited to bonding, tips, wrappings, tapes, inlays, and overlays.
- *Footwear*: Clean and well-kept shoes appropriate to role and area must be worn. Socks or hosiery must be worn by all individuals who have patient/resident/client contact. Footwear must completely cover the entire top of the foot and shoes must have no holes (e.g, crocs). Footwear must be consistent with OSHA requirements or as required by state and/or federal regulations.
- *Hair*: Hair (including facial hair) should be clean, combed, and neatly trimmed. Ponytails are to be neat and tidy.
- *Identification Badge*: Security identification and RTLS badges will be worn at all times above the waist and visible to patients, visitors, and Sanford Health employees.
- *Excessive Smells or Scents/Fragrance*: Strong scents such as perfumes or shaving lotions can be disruptive to patients and use should be minimal. Odors that are disruptive or offensive to others are unacceptable.
- *Piercings/Jewelry*: Jewelry should be conservative. Examples of inappropriate piercings/jewelry may include facial jewelry, large ear jewelry (plugs, gauges) or excessive pieces of jewelry.
- *Tattoos*: Those that may be offensive to patients, family members, guests of patients, and/or other customers, or employees, are not allowed to be visible. Examples of inappropriate tattoos include anything of an obscene or sexual nature and/or anything that may be construed to be discriminatory against any sex, race, ethnic background, or religion.

Students are responsible for complying with the dress code and for having their clothes laundered and replaced if worn, torn, or faded. Students in violation of dress code will be asked to correct their transgression to join the classroom, lab, or clinical session. Repeated dress code violations will result in disciplinary action.

### Electronic Devices

- 1) **Computer Access**: Each student is assigned a login and password to permit access to Sanford Health’s computer network. Students are eligible to use Sanford Health computers and have access to a laptop at the School of Sonography. Students may use the software available on the network to complete projects and reports required for assignments during the Program. Students may not access the internet, text messages, social media, or use personal computers, tablets, cell phones, or smart watches during classes. Students should take all appropriate measures to ensure personal storage devices do not contain viruses that could be transferred to the Sanford Health network. Misuse of computers and/or network components, or software licensing laws will result in suspension of access and possible suspension or expulsion from the Program.
- 2) **Phone Usage**: Staff should answer telephone calls at clinical sites. Students may answer the phone at a clinical site if staff is readily available to assist with questions. Cellular phones are not permitted in the classroom/lab setting. Students are not allowed to use cellular phones at any time during scheduled class or lab periods. The use of cellular phones may be prohibited in certain areas of the hospital. Students are not allowed to carry personal cellular phones with them during clinical time. Personal device use is restricted to planned breaks.
- 3) **Smart Watch Usage**: Smart devices should not be used in the classroom/lab setting or in clinical areas. Students choosing to wear smart watches are required to set the watch to “do not disturb” in these locations. Text messages, phone calls, personal emails, or other applications should only be checked during planned breaks.

- 4) **Social Networking:** It is important for the student to remember to conduct themselves in a professional manner when participating in social media networks such as Facebook, Instagram, YouTube and Snapchat, etc. Students of the Sanford Medical Center Fargo Sonography Program should conduct themselves on-line in a respectful manner, observing the standards of professional conduct. Students will read, date and sign the “Social Media – Enterprise Policy” and it will be placed in the student’s permanent file.
- 5) **Video and Audio Recording:** Recording video or audio of any individual on Sanford property without their permission is strictly prohibited. This includes, but is not limited to, classroom lectures, evaluations, and during scanning sessions.

If a student is found to be noncompliant with the Electronic Devices Policy they are subject to disciplinary action.

### **Extracurricular Employment**

The Program requires up to a 40 hour per week commitment. Due to the intensity and volume of required coursework and clinical rotations, maintaining employment while in the Program may be challenging. If employed, it must occur outside regular educational hours and must not interfere with academic responsibilities. If time-management is problematic while attending the program and being employed, priorities will need to be established.

### **Fire Safety Policy and Procedure**

Students will receive training regarding Sanford fire safety procedures at each location they are scheduled. Do not delay in reporting fire or smoke at any location. Keep corridors free of obstruction and ensure fire doors are not blocked. Do not utilize elevators during a fire emergency. Know the location of the alarm box and fire extinguisher in work areas. This information will be provided during clinical orientation.

R.A.C.E. protocol is utilized when responding to fires.

Rescue those in immediate danger and move them to a safe, nearby location.

Alert by calling 9-911 for help. Give exact location of the fire.

Confine the fire by closing doors.

Extinguish the fire if possible.

For fire extinguisher use, utilize P.A.S.S.

Pull the pin

Aim the extinguisher at the base of the fire

Squeeze the handles of the extinguisher

Sweep the steam of extinguishing agent across the base of the fire

### **Identification**

Students will receive a photo identification (ID) and remote tracking location service (RTLS) badge during Program orientation. Badges must be worn above the waist and visible at all times. The ID badge will provide access to secured areas where you will be assigned. RTLS badges are for use in a duress situation and will allow students to alert security and nearby staff indicating a safety concern and the need for immediate assistance. Students will be trained on RTLS badge use and care during Program orientation. ID/RTLS badges must be turned in upon completion of the Program.

## **Meals**

Students may utilize Sanford Health Fargo food service facilities. Students will be eligible to use the “Flex Plus” plan which allows cash value to be loaded onto a badge for purpose of payment at any Dining Center or Bean Cuisine. Students are not eligible for the 20% employee discount unless employed by Sanford Health.

## **Pagers**

Students may be assigned a hospital pager for use during clinical rotations. Students will be oriented to the use of pagers, if needed, during the Program. Pagers must be returned upon completion of the program.

## **Parking**

During Program orientation, students will receive a parking permit from the Security Department. Student’s vehicle license plate numbers are required for the parking permit. At clinical locations, parking is available in the employee parking ramp and lots. The Sanford Health ID badge also functions as an access card for parking in the employee parking ramp. Students may **not** park in the areas designated for patients and visitors. Security monitors all parking areas. Failure to follow the parking guidelines will result in your vehicle being ticketed and could impact parking privileges at Sanford Health. Designated student parking is available at the Hofer Radiology Education Center. Vehicles should be locked when unattended. Sanford Health assumes no responsibility for damage to vehicles or loss of personal property in the vehicle. Parking permits must be turned in upon completion of the Program.

## **Pregnancy**

In the event a student is pregnant during the Program, they may voluntarily notify the Program Director of their condition. The pregnancy policy is a voluntary declaration intended to provide safety for a pregnant student and their fetus. This information will be handled with respect for the privacy of the student. Notification should be in writing and include the student’s name and expected date of delivery. Should the expected date of delivery occur during the program they may choose to complete programmatic requirements without modification, request a leave of absence as outlined in the instructional continuity plan for extended leave of absence, or withdraw from the Program. The Program will not offer “out of sequence” courses to accommodate students.

## **Printing / Copying**

Students have access to photocopy machines and printers and will be given instructions on their use. Students should ask permission before utilizing these services.

## **Security / Theft / Loss**

Security personnel patrol the hospital and grounds of the clinical locations on a 24-hour basis with TV surveillance in several areas. Security escort service to the parking ramp and area buildings is available on request. Security does not routinely patrol the School of Sonography location. All students are asked to safeguard their personal items. Students who experience theft or loss of personal property should contact Sanford Security Services at (701) 234-5719.

## **Service Work**

Students may not assume either the responsibility or the place of qualified staff. However, after demonstrating competency, students may be permitted to undertake certain defined activities under appropriate supervision and instruction. Students may be employed in a clinical setting outside regular educational hours, provided the work does not

interfere with regular academic responsibilities. The work must be non-compulsory, paid, and subject to standard employee policies.

### **Severe Weather Information**

A *watch* indicates that weather conditions are favorable for the development of severe thunderstorms, tornadoes, or severe winter weather. While in a watch, stay updated on weather developments and be prepared to go to a place of safety.

A *warning* indicates that severe weather has been reported or indicated on radar. Refer to your supervisor or the Emergency Operating Procedures (EOP) for the location you are scheduled for specific instructions. EOP documents are available on the Inside Sanford website and in each department.

In the event of severe weather, the Program Director will determine any weather-related closures. If a “no travel” advisory is issued for the Fargo/Moorhead area, the Sanford School of Sonography will be closed. Closures will be communicated via email or phone. Classes may be held online during severe weather.

### **Tobacco Use**

Tobacco use is not allowed on any Sanford Health property, including outdoor space and parking lots. Students found violating the tobacco use policy will undergo disciplinary action.

## CONTACT INFORMATION

### Sanford Medical Center Fargo Sonography Program

Hofer Radiology Education Center

3148 Fiechtner Drive South

Fargo, ND 58103

701-234-6340

[SonographyProgram@SanfordHealth.org](mailto:SonographyProgram@SanfordHealth.org)

### Accrediting Agencies



#### Commission on Accreditation of Allied Health Education Programs

9355 113<sup>th</sup> St N, #7709

Seminole, FL 33775

727-210-2350

[www.caahep.org](http://www.caahep.org)

Sponsor:	Sanford Medical Center Fargo	Sanford Medical Center Fargo	North Dakota State University
Accrediting Agency:	<b>The Joint Commission</b>	<b>American College of Radiology</b>	<b>Higher Learning Commission</b>
Mailing Address:	One Renaissance Blvd. Oakbrook Terrace, IL 60181 <i>Washington DC Office</i> 601 13th Street, NW Suite 560 South Washington, DC 20005	<i>Headquarters Office</i> 1891 Preston White Dr. Reston, VA 20191	230 South LaSalle Street Suite 7-500 Chicago, Illinois 60604-1411
Website Address:	<a href="http://www.jointcommission.org/">www.jointcommission.org/</a>	<a href="https://www.acr.org/">https://www.acr.org/</a>	<a href="https://www.hlcommission.org/">https://www.hlcommission.org/</a>
Phone Number:	630-792-5800	703-648-8900	800-621-7440