

DIAGNOSTIC MEDICAL SONOGRAPHY

This Selective Program has a competitive entry selection process based on a competitive point system. Application requirements are included in the description below.

Diagnostic Medical Sonography

Associate of Applied Science

Diagnostic medical sonographers are health care professionals who perform diagnostic imaging procedures with the use of high frequency sound waves (ultrasound) to produce dynamic visual images of organs, tissues or blood flow inside the body. This type of procedure is often referred to as a sonogram or ultrasound study. Diagnostic medical sonographers work closely with radiologists, the physicians who interpret medical images to either diagnose or rule out disease or injury. Sonography is a radiation-free imaging modality that has many applications in the diagnosis and treatment of medical conditions in the abdomen, obstetrics, heart, vascular system, and various superficial structures.

The Diagnostic Medical Sonography Associate of Applied Science Degree at South Texas College is an approved program by the Southern Association of Colleges and Schools Commission on Colleges Accreditation Guidelines. The program provides educational and clinical experience that result in extensive knowledge in ultrasound physics and instrumentation, use of Doppler imaging, cross-sectional anatomy and pathophysiology in the abdomen, pelvis, obstetrics, gynecology and superficial structures. Throughout the clinical and practicum aspects of the program, students will train in various medical facilities with experienced sonographers.

Upon successful completion of the program, students will receive an Associate of Applied Science Degree in Diagnostic Medical Sonography. Graduates will also be competent to challenge the American Registry for Diagnostic Medical Sonography (ARDMS) and American Registry of Radiologic Technologists (ARRT) national examinations.

Program Admission Requirements

All applicants must:

1. Participate in the required Prospective Student Information Session at the Nursing & Allied Health Campus. For the session schedule, access the information on the Diagnostic Medical Sonography Program website online at <https://www.southtexascollege.edu/sonography>.
2. Be admitted to the college as a high school graduate or GED equivalent.
3. Meet TSI College Readiness Standards, or meet TSI exemption standards.
4. Complete the HESI A2 (Admissions Assessment) Exam as follows: Achieve an English Language Composite Score of 75% or higher to include passing scores of a 75% or higher in all sections within the English Language Category, a Science (Anatomy & Physiology) Score of 75% or higher, and a Math Score of 75% or higher. Passing scores must be within the same eligibility period and within the last 2 calendar years. HESI A2 exemptions are not permitted.
5. Complete all prerequisite courses with a minimum grade of "B" as listed in the

Diagnostic Medical Sonography AAS degree plan. BIOL 2401 Anatomy and Physiology I and BIOL 2402 Anatomy and Physiology II courses must be current within the last 5 calendar years. DMSO 1210 Introduction to Sonography must be current within the last 2 calendar years. HESI A2 English Language Composite, Science, and Math test scores are required prior to registration to DMSO 1210. No minimum score is required for entry in this course.

6. Earn a minimum cumulative GPA of 3.0 on a 4.0 scale in all courses listed in the Diagnostic Medical Sonography degree plan. This includes courses completed through South Texas College and transfer courses.
7. Pass a criminal background check, 10-panel drug screen through approved providers, and complete all required immunizations including Hepatitis B series. For more information on these requirements access the Clinical Affairs website: https://nah.southtexascollege.edu/clinical_affairs.html. Students with criminal histories must provide proof of compliance from the American Registry for Diagnostic Medical Sonography (ARDMS) and American Registry of Radiologic Technologists (ARRT) prior to application.
8. Meet the NAH Functional Abilities Standards available on the NAH Clinical Affairs website at https://nah.southtexascollege.edu/clinical_affairs.html.
9. Submit a completed Program application by stated deadline. For more information access the website at <https://www.southtexascollege.edu/sonography>.
10. Satisfy healthcare agency requirements prior to clinical practice.

Competitive Entry Selection Process

Admission to the Diagnostic Medical Sonography Associate of Applied Science Degree is based on a point system score comprised of GPA of DMS Program prerequisite and general education courses, HESI A2 Exam scores, and optional points which may be obtained from items listed on the Application Form (for example, completion of CSFH 0101 College Success for Healthcare and HITT 1305 Medical Terminology I courses with a B or better). Qualified applicants are numerically ranked from highest to lowest total application points. Due to program size limitations, a number of applicants who meet the program admission requirements may not be admitted to the program. Selection of students is made one time a year during the fall. The deadline for applying to the Diagnostic Medical Sonography Program is the third Friday in August of the current year. For specific information on the point system utilized for candidate selection, please contact the NAH Program Advisor online at <https://www.southtexascollege.edu/sonography>.

A new applicant pool is established for each admission period. Applicants who were not admitted for the current application period must re-apply to be considered for a later application period. DMS Program applications are available annually on the Diagnostic Medical Sonography Program web page. The typical number of new positions available on an annual basis is 14, which includes a combination of applicants from both the AAS and ATC application pools. The final number of students accepted into the program each year is dependent upon available resources. Should any of the accepted applicants decline admission, an alternate will be offered acceptance to the program. In the case of tied applicants, finalists will be chosen in the following order: 1) GPA 2) HESI A2 Examination Scores 3)

Least number of repeated prerequisite courses 4)
Earliest date of application.

NOTE: Please see program webpage for additional information regarding the application process at <https://www.southtexascollege.edu/sonography>.

Graduation Requirements

To earn an Associate of Applied Science Degree in the Diagnostic Medical Sonography Program, students must meet college graduation requirements and complete all coursework as prescribed in the degree plan with a minimum grade of "C" in didactic courses and minimum grade of "B" in the clinical/practicum courses. Students must also pass the written examinations as required in the final Capstone course. Students must pass all courses in the degree plan for successful completion of the program.

Diagnostic Medical Sonography

Advanced Technical Certificate

Diagnostic medical sonographers are health care professionals who perform diagnostic imaging procedures with the use of high frequency sound waves (ultrasound) to produce dynamic visual images of organs, tissues, or blood flow inside the body. This type of procedure is often referred to as a sonogram or ultrasound study. Diagnostic medical sonographers work closely with radiologists, the physicians who interpret medical images to either diagnose or rule out disease or injury. Sonography is a radiation-free imaging modality that has many applications in the diagnosis and treatment of medical conditions in the abdomen, obstetrics, heart, vascular system, and various superficial structures.

The Diagnostic Medical Sonography Advanced Technical Certificate at South Texas College is an approved program by the Southern Association of Colleges and Schools Commission on Colleges Accreditation Guidelines. The program provides educational and clinical experience that result in extensive knowledge in ultrasound physics and instrumentation, use of Doppler imaging, cross-sectional anatomy and pathophysiology in the abdomen, pelvis, obstetrics, gynecology, and superficial structures. Throughout the clinical and practicum aspects of the program, students will train in various medical facilities with experienced sonographers.

Upon successful completion of the program, students will receive an Advanced Technical Certificate in Diagnostic Medical Sonography. Graduates will also be competent to challenge the American Registry for Diagnostic Medical Sonography (ARDMS) and American Registry of Radiologic Technologists (ARRT) national examinations.

Application to the Diagnostic Medical Sonography Advanced Technical Certificate requires a minimum of an associate degree in a nursing or allied health profession that is patient care related. A bachelor degree and higher in a related field may be accepted if the degree meets the requirements of the program. All degrees will be reviewed on a case-by-case basis.

Program Admission Requirements

All applicants must:

1. Participate in the required Prospective Student Information Session at the Nursing & Allied Health Campus. For the session schedule, access the information on the Diagnostic Medical Sonography

Program website online at <https://www.southtexascollege.edu/sonography>.

2. Be admitted to the college as a high school graduate or GED equivalent.
3. Meet TSI College Readiness Standards, or meet TSI exemption standards.
4. Complete the HESI A2 (Admissions Assessment) Exam as follows: Achieve an English Language Composite Score of 75% or higher to include passing scores of a 75% or higher in all sections within the English Language category, a Science (Anatomy & Physiology) Score of 75% or higher, and a Math Score of 75% or higher. Passing scores must be within the same eligibility period and within the last 2 calendar years. HESI A2 exemptions are not permitted.
5. Complete prerequisite course with a minimum grade of "B" as listed in the Diagnostic Medical Sonography ATC curriculum. DMSO 1210 Introduction to Sonography must be current within the last 2 calendar years. HESI A2 English Language Composite, Science, and Math test scores are required prior to registration to DMSO 1210. No minimum scores are required for entry in this course.
6. Complete all required course work prior to application to include BIOL 2401 Anatomy and Physiology I or equivalent and ENGL 1301 Composition I or equivalent. BIOL 2401 Anatomy and Physiology I or equivalent must be current within the last 5 calendar years.
7. Hold a minimum of an associate degree in a nursing or allied health profession that is patient care related. A bachelor degree and higher in a related field may be accepted if the degree meets the requirements of the program. All degrees will be reviewed on a case-by-case basis.
8. Pass a criminal background check, 10-panel drug screen through approved providers, and complete all required immunizations including Hepatitis B series. For more information on these requirements access the Clinical Affairs website: https://nah.southtexascollege.edu/clinical_affairs.html. Students with criminal histories must provide proof of compliance from the American Registry for Diagnostic Medical Sonography (ARDMS) prior to application. Students who opt to challenge the American Registry of Radiologic Technologists (ARRT) certification examination must also provide proof of compliance prior to application.
9. Meet the NAH Functional Abilities Standards available on the NAH Clinical Affairs website at https://nah.southtexascollege.edu/clinical_affairs.html.
10. Submit a completed Program application by stated deadline. For more information access the website at <https://www.southtexascollege.edu/sonography>.
11. Satisfy healthcare agency requirements prior to clinical practice.

Competitive Entry Selection Process

Admission to the Diagnostic Medical Sonography Advanced Technical Certificate is based on a point system score comprised of DMS Program prerequisite and general education courses, required degree courses, HESI A2 Exam scores, level of degree, and optional points which may be obtained from items listed on the Application Form (for example, additional points for STC graduates from selective nursing & allied health programs, completion of BIOL 2402 Anatomy and Physiology II and HITT 1305 Medical Terminology I courses with a B or better). Qualified applicants

are numerically ranked from highest to lowest total application points. Due to program size limitations, a number of applicants who meet the program admission requirements may not be admitted to the program. Selection of students is made one time a year during the fall. The deadline for applying to the Diagnostic Medical Sonography Program is the third Friday in August of the current year. For specific information on the point system utilized for candidate selection, please contact the NAH Program Advisor online at <https://www.southtexascollege.edu/sonography>.

A new applicant pool is established for each admission period. Applicants who were not admitted for the current application period must re-apply to be considered for a later application period. DMS Program applications are available annually on the Diagnostic Medical Sonography Program web page. The typical number of new positions available on an annual basis is 14, which includes a combination of applicants from both the AAS and ATC application pools. The final number of students accepted into the program each year is dependent upon available resources. Should any of the accepted applicants decline admission, an alternate will be offered acceptance to the program. In the case of tied applicants, finalists will be chosen in the following order: 1) GPA 2) HESI A2 Examination Scores 3) Least number of repeated prerequisite courses 4) Earliest date of application.

NOTE: Please see program webpage for additional information regarding the application process at <https://www.southtexascollege.edu/sonography>.

Graduation Requirements

To earn an Advanced Technical Certificate in the Diagnostic Medical Sonography Program, students must meet college graduation requirements and complete all coursework as prescribed in the degree plan with a minimum grade of "C" in didactic courses and minimum grade of "B" in the clinical/practicum courses. Students must also pass the written examinations as required in the final Capstone course. Students must pass all courses in the degree plan for successful completion of the program.

Program Learning Outcomes

1. Graduates will demonstrate efficiency in obtaining pertinent patient history for sonographic examinations that will facilitate optimal diagnostic results.
2. Graduates will demonstrate competency in performing sonographic procedures through the application of learned scanning techniques and protocol guidelines.
3. Graduates will demonstrate competence in the basic principles of ultrasound imaging and potential bioeffects.
4. Graduates will demonstrate competence in the application of equipment instrumentation in recording sonographic images.
5. Graduates will be able to recognize and apply the medicolegal aspects of the sonography profession to include the rights of the patient, occupational personnel, and medical facilities.

Advisory Committee Members

Charlie Aguirre, RT(R), CNMT, Director of Radiology, South Texas Health System - McAllen Medical Center/McAllen Heart Hospital
Marisela Borjas, RT(ARRT), RDMS, Valley Lead Sonographer, Driscoll Children's Hospital
Hermilo Peña, MBA, RT(R)(CT)(MR), Radiology Manager, VA Texas Valley Coastal Bend Health Care System

Ray Segundo, BS, RT(R)(N), Director of Imaging Services, Mission Regional Medical Center
Jose F. Tovar, MSHA, RT(R), Director of Diagnostic Imaging, Rio Grande Regional Hospital
Laurence Weinreich, MBA, CRA, RT(R), Director of Radiology, Edinburg Regional Medical Center and Children's Hospital
Sandra Yanez, RT(R), Director of Radiology, Doctors Hospital at Renaissance

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Diagnostic Medical Sonography Associate of Applied Science

TSI Liable

Course	Title	Credit Hours
Pre-requisites		
DMSO 1210	Introduction to Sonography ¹	2
BIOL 2401	Anatomy and Physiology I ²	4
BIOL 2402	Anatomy and Physiology II ²	4
ENGL 1301	Composition I ^{2,3}	3
Credit Hours		13

First Year

Spring		
DMSO 1460	Clinical	4
DMSO 1302	Basic Ultrasound Physics	3
DMSO 1441	Abdominopelvic Sonography	4
DMSO 2405	Sonography of Obstetrics/Gynecology	4
Credit Hours		15

Summer

Social and Behavioral Sciences Elective ²		3
DMSO 1166	Practicum I	1
DMSO 2351	Doppler Physics	3
Humanities Elective ²		3
DMSO 1167	Practicum II	1
DMSO 2353	Sonography of Superficial Structures	3
Credit Hours		14

Second Year

Fall		
DMSO 2366	Practicum III	3
DMSO 1342	Intermediate Ultrasound Physics	3
DMSO 2342	Sonography of High Risk Obstetrics	3
DMSO 2441	Sonography of Abdominopelvic Pathology	4
Credit Hours		13
Spring		
DMSO 2367	Practicum IV	3
DMSO 2230	Capstone: Advanced Ultrasound and Review	2
Credit Hours		5
Total Credit Hours		60

¹ HESI A2 exam scores are required prior to registration to DMSO 1210 Introduction to Sonography.

² Identifies courses to fulfill minimum 15 credit hour General Education requirement.

³ Students may substitute ENGL 1302 Composition II - Rhetoric.

Diagnostic Medical Sonography Advanced Technical Certificate

TSI Liable

Course	Title	Credit Hours
Pre-requisite		
DMSO 1210	Introduction to Sonography	2
Credit Hours		2
First Year		
Spring		
DMSO 1460	Clinical	4
DMSO 1302	Basic Ultrasound Physics	3
DMSO 1441	Abdominopelvic Sonography	4
DMSO 2405	Sonography of Obstetrics/Gynecology	4
Credit Hours		15
Summer		
DMSO 1166	Practicum I	1
DMSO 2351	Doppler Physics	3
DMSO 1167	Practicum II	1
DMSO 2353	Sonography of Superficial Structures	3
Credit Hours		8
Second Year		
Fall		
DMSO 2366	Practicum III	3
DMSO 1342	Intermediate Ultrasound Physics	3
DMSO 2342	Sonography of High Risk Obstetrics	3
DMSO 2441	Sonography of Abdominopelvic Pathology	4
Credit Hours		13
Spring		
DMSO 2367	Practicum IV	3
DMSO 2230	Capstone: Advanced Ultrasound and Review	2
Credit Hours		5
Total Credit Hours		43

¹ HESI A2 exam scores are required prior to registration to DMSO 1210 Introduction to Sonography.

² Identifies courses to fulfill minimum 15 credit hour General Education requirement.