

## ASSOCIATE OF APPLIED SCIENCE

# Diagnostic Medical Sonography

The Associate of Applied Science (AAS) in Diagnostic Medical Sonography (DMS) will prepare students for a dynamic career in sonography (ultrasound). Professionals in DMS, also known simply as sonographers, use sound waves to obtain images of organs and tissues in the body. During an ultrasound examination, the sonographer places a device called a transducer in contact with the patient's body. The transducer emits high frequency sound waves that pass through the body, sending back "echoes" as they bounce off organs and tissue. Specialized equipment then converts those echoes into visual data in the form of medical images, depicting the anatomy of interest.

### Why study diagnostic medical sonography?

Sonography students are trained to acquire and analyze produced sonographic images for diagnostic image quality and submit them to a qualified physician for interpretation. These images are then used to help doctors diagnose and treat many medical conditions. Since ultrasound is a non-invasive way to visualize internal organs, it is often the first imaging test performed when a disease or condition is suspected. Therefore, sonographers have an important role in conducting and interpreting initial tests that may help narrow down a patient's diagnosis and quickly get them the medical care they need. The DMS program prepares individuals to have foundational skills and knowledge of human anatomy and pathology, ultrasound physics, equipment operation, and safe, quality patient care.

### Career choices

Sonographers practice in hospitals, clinics and physician's offices, and in many clinical specialties. They are often found performing ultrasound procedures at a patient's bedside, but also may work with imaging equipment in a dedicated room within the hospital or clinic. Most diagnostic sonographers work full time, and some may be assigned to work evenings, weekends or on holidays depending on their employer.

### Focused courses for your degree

This program focuses on general abdominal, obstetric and gynecological sonography courses. Ultrasound physics and instrumentation, abdominal, obstetric, gynecologic, vascular sonographic imaging procedures and patient care will be studied. Clinical laboratory and practicum (hands on) experiences will be included in the educational plan.

### Credential: Registered Diagnostic Medical Sonographer (RDMS)

The American Registry of Diagnostic Medical Sonography (ARDMS) administers a national certification examination. DMS students are eligible to apply for the Sonography Physics and Instrumentation (SPI) examination during the fourth semester of the program. Once successfully passing the SPI, graduates are then eligible to apply for the Abdomen (AB), and/or Obstetric/ Gynecologic (OB/GYN) specialty examinations. After initial certification, registrants must earn 30 continuing education credits every three years to maintain registration of their certification(s).



## COURSES REQUIRED

### Diagnostic Medical Sonography (AAS)

#### Prerequisites

(must be completed prior to admission to program)

AH 171 Medical Terminology ..... 3 cr  
 BIOL 220 Anatomy & Physiology I ..... 4 cr  
 AH 231 Health Care Law and Ethics ..... 3 cr

#### General education courses

(can be completed before or during program)

BIOL 221 Anatomy & Physiology II ..... 4 cr  
 PHYS 120 Fundamentals of Physics ..... 4 cr  
 ENGL 110 College Composition I  
 or COMM 110 Fund. Public Speaking ..... 3 cr  
 MATH 103 College Algebra..... 4 cr  
 Wellness elective ..... 1-2 cr  
 Fine Arts/humanities/social science elective..... 3 cr  
 CSCI 101 Introduction to Computers ..... 3 cr

All courses subject to change.



The AAS in Diagnostic Medical Sonography is offered in partnership with Trinity Health.

## DIAGNOSTIC MEDICAL SONOGRAPHY (18 months)

Semester 1 – Fall – 16 weeks (12 cr)		Week
DMS 201	Ultrasound Foundation Concepts.....3 cr	1-4
DMS 221	Abdominal Ultrasound I.....2 cr	5-16
DMS 221L	Abdominal Ultrasound I Lab ..... 1 cr	5-16
DMS 231	OB/GYN I ..... 2 cr	5-16
DMS 231L	OB/GYN I Lab ..... 1 cr	5-16
DMS 281	Clinical Practicum I.....3 cr	5-16

Semester 2 – Spring – 16 weeks (12 cr)		Week
DMS 211	Ultrasound Physics & Instrumentation.....2 cr	1-16
DMS 222	Abdominal Ultrasound II.....3 cr	1-16
DMS 222L	Abdominal Ultrasound II Lab ..... 1 cr	1-16
DMS 232	OB/GYN II ..... 2 cr	1-16
DMS 232L	OB/GYN II Lab ..... 1 cr	1-16
DMS 282	Clinical Practicum II.....3 cr	1-12

Semester 3 – Summer – 8 weeks (7 cr)		Week
DMS 251	Patient Care.....1 cr	1-8
DMS 212	Ultrasound Physics & Instrumentation II.....2 cr	1-8
DMS 283	Clinical Practicum III.....4 cr	1-8

Semester 4 – Fall – 16 weeks (12 cr)		Week
DMS 223	Abdominal Ultrasound III.....2 cr	1-16
DMS 223L	Abdominal Ultrasound III Lab ..... 1 cr	1-16
DMS 233	OB/GYN III ..... 2 cr	1-16
DMS 233L	OB/GYN III Lab ..... 1 cr	1-16
DMS 241	Vascular I ..... 1 cr	1-16
DMS 241L	Vascular I Lab ..... 1 cr	1-16
DMS 284	Clinical Practicum IV ..... 4 cr	1-16

Semester 5 – Spring – 16 weeks (12 cr)		Week
DMS 224	Abdominal Ultrasound IV .....2 cr	1-16
DMS 242	Vascular II .....2 cr	1-16
DMS 242L	Vascular II Lab ..... 1 cr	1-16
DMS 250	Comprehensive Review.....3 cr	13-16
DMS 285	Clinical Practicum V ..... 4 cr	1-16

**Total..... 55 cr**

Students are **required to complete 780 clinical hours** following the completion of Semester 3. Clinical practicum hours will total a minimum of 1680 hours to align with ARDMS standards.

## CONTACT INFORMATION



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