



Diagnostic Medical Sonography Program

Program Description

The Diagnostic Medical Sonography (DMS) associate degree program is designed to prepare qualified entry-level sonographers who are highly skilled, technically competent, ethical, professional, compassionate, and responsive to the needs of patients and of employing organizations. The profession requires critical thinking skills and judgment and the ability to provide appropriate healthcare services. Sonographers use technologically advanced equipment that utilizes high-frequency sound waves to produce dynamic visual pictures of internal body structures. Physicians evaluate the images to make a medical diagnosis.

Course work includes sonographic physics, sonographic appearance of normal and abnormal anatomy, physiology, pathology, and pathophysiology of the abdomen, pelvis, and small parts of the adult, pediatric, and fetal patient, clinical application courses, interventional sonography including biopsies, needle aspirations, and fluid drainage procedures, journal and case study review, and comprehensive registry reviews. The program combines formal education and extensive clinical training to prepare students to function as a sonographer.

As a graduate of this accredited DMS program, the student is eligible to sit for the national certification examination in Diagnostic Medical Sonography, administered by the American Registry of Diagnostic Medical Sonography (ARDMS) in the SPI Physics exam upon completing the program physics class and in the Abdomen and the Obstetrics/Gynecology specialties up to sixty days prior to program completion. The student may also elect to take the American Registry of Radiologic Technologist (ARRT) exam for Sonography, a combined exam of Physics, Abdomen, and Obstetrics and Gynecology. The partnership that CTC has with area healthcare facilities will provide the student the benefit of on-the-job training in a clinical setting. Columbus Technical College does not guarantee job placement; however, we often assist graduates with employment opportunities as healthcare facilities seek our graduates for job prospects. Hospital imaging departments, clinics, physician's offices, and diagnostic centers seek registered graduates.

Program Accreditation

The Diagnostic Medical Sonography program at Columbus Technical College is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS). The goal of the Diagnostic Medical Sonography program is to prepare competent entry-level sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains for the Obstetrics and Gynecology Sonography concentration and the Abdominal - Extended Sonography concentration. Students will learn both concentrations during the continuous course of study over a 17-month/four semester duration of class, lab, and clinical rotations.

Commission on Accreditation
of Allied Health Education Programs
9355 – 113th St. N. #7709
Seminole, FL 33775
(727) 210-2350
www.caahep.org

Joint Review Committee on Education
in Diagnostic Medical Sonography
6021 University Blvd. Suite 500
Ellicott City, MD 21043
(443) 973-3251
www.jrcdms.org



Program Admission Requirements: (The DMS Program is a Competitive Admissions Program)

- Applicants must present documentation of a high school diploma or official GED scores for admission.
- Applicants must be at least 18 years of age.
- No provisional and/or special admission students are considered for the program.
- Must have a minimum GPA of 2.0 at the end of summer semester of the year submitting the application.
- Must complete all prerequisite courses by the end of summer semester in the year of application submission.
- All transcripts for courses being transferred in from other colleges must be received in the Admissions Office before the application deadline of September 15th.
- HESI A2 exam must be completed at Columbus Tech before the application deadline of September 15th.
- Entrance into the DMS program is contingent upon completion/results of a criminal background check and drug screen which must be completed after being conditionally accepted into the program. Pertinent information regarding the Background Check/Drug Screen will be provided to students once accepted into the program. The student will be responsible for the cost of these items.
- Student must provide current medical/physical exam results on a DMS provided Medical Form, meet the Diagnostic Medical Sonography Technical Standards, and provide immunization records and current CPR card (BLS for Healthcare Providers) after program acceptance. While Columbus Tech does not require vaccines for program admission, the majority of our clinical sites are requiring students to be fully vaccinated against COVID-19, in addition to other vaccinations. If a student chooses not to be vaccinated, they may not be allowed to attend those sites, which could delay or prevent program completion.

Competitive ranking will be based on:

1. Grades from designated Prerequisite Courses (60% of ranking)

Designated course grades used for competitive ranking are indicated by an asterisk* on program sequence sheets on CTC web page. All prerequisites must be completed at the time of program application with a grade of C or higher.

- Applicants receiving a passing grade for any prerequisite course will be given one opportunity to improve their grade in that specific prerequisite course. The higher passing grade will be used for ranking. (Financial Aid may not cover additional attempts.)
- Science courses (BIOL 2113 & 2113L, BIOL 2114 & 2114L, & PHYS 1110 & 1110L) used for competitive admission cannot be more than seven (7) years old or the course must be re-taken.
- Any science courses more than 7 years old will not be used for competitive ranking.

2. HESI A2 exam scores (40% of ranking)

Student must achieve a minimum score of 70 to be considered for admission into the DMS program.

- Call the CTC Testing Center at 706-649-1822 for times, dates, and questions regarding testing. The HESI exam must be completed before submitting an application to the program.
- CTC's specific HESI A2 exam is required for all competitive programs and must be taken in the CTC testing center. Only scores from this exam will be used for ranking.

The deadline for program application is September 15th, so please plan ahead and schedule the exam at least 2-3 weeks in advance as testing slots do fill quickly.

- The HESI A2 exam may be taken a total of two times per calendar year. The test results are only good for a two-year period.
- The HESI A2 exam is required for all competitive admission programs.



- There are several preparation options for the HESI A2 exam, including free test prep via the Columbus Technical College virtual library on Mometrix or HESI Admission Assessment Exam and Review book, 5th Edition ISBN: 9780323582261.

***The following courses will be used in the ranking process for competitive admission:**

ENGL 1101, MATH 1111, BIOL 2113, BIOL 2113L, BIOL 2114, BIOL 2114L,
MATH 1127 *or* ALSH 1040, PHYS 1110, PHYS 1110L

(PSYC 1101, & HUMN XXXX are not used in the ranking process, but these courses must be completed prior to program application with exception of SEMN 1000 which may be taken during the program.)

| Diagnostic Medical Sonography – Prerequisite Courses | CREDIT HOURS |
|---|-------------------------|
| *ENGL 1101 Composition and Rhetoric | 3 |
| *MATH 1111 College Algebra | 3 |
| PSYC 1101 Introduction to Psychology | 3 |
| *BIOL 2113 Anatomy and Physiology I | 3 |
| *BIOL 2113 L Anatomy and Physiology I Lab | 1 |
| HUMN XXXX Humanities/Fine Arts Elective | 3 |
| *MATH 1127 Introduction to Statistics <i><u>or</u></i> | 3 |
| *ALHS 1040 Introduction to Health Care | |
| *PHYS 1110 Conceptual Physics | 3 |
| *PHYS 1110 L Conceptual Physics Lab | 1 |
| *BIOL 2114 Anatomy and Physiology II | 3 |
| *BIOL 2114 L Anatomy and Physiology II Lab | 1 |
| | |

** Other recommended course: ALHS 1090 – Medical Terminology (This course is not required but may be helpful to the student during their time in the DMS program.)



Application Deadline

Applications will be accepted online at www.columbustech.edu between **September 1st - September 15th** for Spring semester admission. All prerequisite courses and HESI A2 exams must be completed by the time of application and all transcripts from courses being transferred in from other colleges must be received in the Columbus Tech Admissions Office before the application deadline of September 15th.

If you have any questions, please contact the DMS Program Director, Regina Ridgley at rridgley@columbustech.edu for more information.

Program Considerations

- DMS courses are generally scheduled from 8:00am–5:00pm, Monday–Friday, during each semester. Students will be in class, lab, and clinicals 40 hours/week (schedules can change for needs of the program)
- Attending the program is equivalent to working a full-time job, with additional study and homework time in the evening and weekends.
- Travel is required for clinical rotations (currently, as far as ~50 miles, each way) for up to four (4) days per week each semester. Reliable transportation is a must.
- ARDMS Registry exam fees (totaling \$800.00, must be paid in increments throughout the program) See www.ardms.org for more info.
- We often assist graduates with employment opportunities as they come available in the area; however, we do not guarantee job placement (Approximately 89-100% of past graduating classes are gainfully employed either full-time or part-time within the first six (6) months post-graduation.)

Program Completion Rates

| Graduation Year | Students Accepted | Academic Attrition | Non-Academic Attrition (Voluntary Withdrawal) | Graduates | Retention Rate |
|-----------------|-------------------|--------------------|---|-----------|----------------|
| 2023 | 10 | 0 | 0 | 10 | 100% |
| 2022 | 10 | 0 | 1 | 9 | 90% |
| 2021 | 10 | 0 | 0 | 10 | 100% |
| 2020 | 11 | 1 | 0 | 10 | 91% |
| 2019 | 12 | 0 | 1 | 11 | 92% |
| 2018 | 10 | 1 | 0 | 9 | 90% |
| 2017 | 10 | 1 | 0 | 9 | 90% |



Job Placement Rates

| Graduation Year | # of Graduates | Pursuing further degree | Not pursuing career in sonography | Total # Positive Placement | Positive Job Placement Rate (Within 6 months of graduation) |
|-----------------|----------------|-------------------------|-----------------------------------|----------------------------|---|
| 2023 | 10 | 0 | 0 | 10 | 100% |
| 2022 | 9 | 0 | 0 | 9 | 100% |
| 2021 | 10 | 0 | 0 | 10 | 100% |
| 2020 | 10 | 0 | 0 | 10 | 100% |
| 2019 | 11 | 0 | 1 | 11 | 100% |
| 2018 | 9 | 0 | 1 | 8 | 89% |
| 2017 | 9 | 1 | 0 | 8 | 89% |

Credentialing Examination Pass Rates (American Registry for Diagnostic Medical Sonography)

| Grad. Year | ARDMS SPI Exam First Attempt Pass Rate | | ARDMS Abdomen Exam First Attempt Pass Rate | | ARDMS OB/GYN First Attempt Pass Rate | |
|------------|--|------------------|--|------------------|--------------------------------------|------------------|
| | CTC Rate | National Average | CTC Rate | National Average | CTC Rate | National Average |
| 2023 | 100% | n/a | 90% | n/a | 100% | n/a |
| 2022 | 100% | n/a | 89% | n/a | 100% | n/a |
| 2021 | 90% | 68% | 100% | 69% | 100% | 79% |
| 2020 | 82% | 76% | 90% | 74% | 100% | 84% |
| 2019 | 91% | 73% | 100% | 79% | 100% | 81% |
| 2018 | 90% | 73% | 89% | 83% | 89% | 79% |
| 2017 | 100% | 75% | 100% | 84% | 100% | 79% |

| Graduation Year | # of Graduates | Percentage of graduates ARDMS registered in one or more specialties (ABD and/or OBGYN) within 12 months of graduation |
|-----------------|----------------|---|
| 2023 | 10 | 100% |
| 2022 | 9 | 100% |
| 2021 | 10 | 100% |
| 2020 | 10 | 100% |
| 2019 | 11 | 100% |
| 2018 | 9 | 89% |
| 2017 | 9 | 100% |



Estimated Student Expenses

| <i>Diagnostic Medical Sonography</i> | <i>Expenses</i> |
|---|------------------------|
| Background Check | \$65.00 |
| Medical Physical | \$100.00 |
| Immunizations | \$130.00 |
| Flu Shots | \$40.00 |
| CPR (BLS for Healthcare Providers) | \$65.00 |
| Uniforms and Accessories | \$175.00 |
| Graduation Fee | \$40.00 |
| ARDMS SPI Exam | \$250.00 |
| ARDMS Specialty Exams (\$275 x 2) | \$550.00 |
| | |
| Required Textbooks | \$1220.00 |
| ACEMAPP Clinical Fees | \$110.00 |
| DMSO Course Lab Fees (8 courses) | \$275.00 |
| Student Liability Insurance | \$35.00 |
| Student Clinical Software Fees | \$150.00 |

****Estimated expenses are subject to change without notice***

ARDMS Exams must be taken and paid for DURING the DMS program

Prerequisite Courses
Tuition/Fees per Semester
(In-State – Not including Textbooks)

| | |
|-----------------|-----------|
| First Semester | \$1656.00 |
| Second Semester | \$1756.00 |
| HESI Exam Fee | \$79.00 |

DMS Program
Tuition/Fees per Semester
(In-State)

| | |
|----------------------------|-----------|
| Third Semester (Spring-I) | \$1656.00 |
| Fourth Semester (Summer) | \$1556.00 |
| Fifth Semester (Fall) | \$1756.00 |
| Sixth Semester (Spring-II) | \$1556.00 |

TOTAL ESTIMATED COST: \$13,220.00



| First Semester | Pre-Occupational Classes | CREDIT HOURS |
|--|---|--------------|
| ENGL 1101 | Composition and Rhetoric | 3 |
| MATH 1111 | College Algebra | 3 |
| PSYC 1101 | Introduction to Psychology | 3 |
| BIOL 2113 | Anatomy and Physiology I | 3 |
| BIOL 2113 L | Anatomy and Physiology I Lab | 1 |
| Second Semester | Pre -Occupational Classes | Credit Hours |
| HUMN XXXX | Humanities/ Fine Arts Elective | 3 |
| MATH 1127 | Introduction to Statistics <i>or</i> | 3 |
| ALHS 1040 | Introduction to Health Care | |
| PHYS 1110 | Conceptual Physics | 3 |
| PHYS 1110 L | Conceptual Physics Lab | 1 |
| BIOL 2114 | Anatomy and Physiology II | 3 |
| BIOL 2114 L | Anatomy and Physiology II Lab | 1 |
| Total Credit Hours Pre – Occupational Classes | | 27 |
| Third Semester | OCCUPATIONAL CLASSES (Competitive Admission) | Credit Hours |
| DMSO 1010 | Foundations of Sonography | 3 |
| DMSO 1020 | Sectional Anatomy and Normal Sonographic Appearance | 3 |
| DMSO1040 | Sonographic Physics and Instrumentation | 3 |
| DMSO 1060 | Clinical Sonography I | 4 |
| Fourth Semester | OCCUPATIONAL CLASSES | Credit Hours |
| DMSO 1050 | Abdominal Sonography I | 3 |
| DMSO 1070 | Pelvic Sonography and First Trimester Obstetrics | 2 |
| DMSO 1080 | Sonographic Physics and Instrumentation Registry Review | 1 |
| DMSO1100 | Clinical Sonography II | 6 |
| Fifth Semester | OCCUPATIONAL CLASSES | Credit Hours |
| DMSO 1090 | Introduction to Vascular Sonography | 1 |
| DMSO 2010 | OB Second and Third Trimesters | 3 |
| DMSO 2020 | Specialized Sonographic Procedures | 2 |
| DMSO 2030 | Clinical Sonography III | 8 |
| Sixth Semester | OCCUPATIONAL CLASSES | Credit Hours |
| DMSO 2040 | Comprehensive Abdomen and OB-GYN Registry Review | 2 |
| DMSO 2050 | Clinical Sonography IV | 10 |
| Total Credit Hours for Occupational Classes | | 51 |
| Total Program Hours | | 78 |