

# DIAGNOSTIC MEDICAL SONOGRAPHY, ASSOCIATE OF APPLIED SCIENCE



The Associate of Applied Science degree prepares the student for an entry-level position as a Diagnostic Medical Sonographer for employment in hospitals and other health care agencies. The Diagnostic Medical Sonographer produces, evaluates, and correlates ultrasound images and related data. Sonographers provide a summary of their technical findings to the qualified interpreting physician to aid in rendering a medical decision. The curriculum consists of on-campus didactic and lab instruction, as well as off-campus clinical applications at our affiliated health care institutions. The program offers specialty training in adult echocardiography and vascular technology. The Diagnostic Medical Sonography program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Upon completion of the Diagnostic Medical Sonography program, graduates are eligible to apply for the national credentialing exams by the American Registry of Diagnostic Medical Sonography (ARDMS) in the exam offerings of their specialty option. **Final acceptance into the Diagnostic Medical Sonography program is contingent upon the results of the required background check.**

**Program contact:** Learn more

Learn more about how certificate credits apply to the related degree.

## Related Degrees and Certificates

- Diagnostic Medical Sonography (Abdomen Extended and Obstetrics Gynecology Sonography), Associate of Applied Science

## Program Admissions Requirements

The DMS program application is online and found on the program web page at <http://www.tri-c.edu/sonography> along with comprehensive admissions and program information. Please refer to the website for application timelines.

- GPA calculated using only the Tri-C specific admission course credit hours listed.
- Non-native English speaking applicants: Admission into Cuyahoga Community College is premised on a complete and accurate initial application to the College, including, if applicable, proof of English Language Proficiency Requirements for admission as indicated on the English Language Proficiency Requirements for Admissions to the College, and available on the web at: <http://www.tri-c.edu/get-started/international-students/english-language-proficiency-requirements-for-admission.html>.

To be accepted into any selective admission programs, students must successfully complete English as a Second Language (ESL) course/s, as referenced above, if deemed necessary by the College at the time of enrollment. Admission is conditioned upon achieving the necessary grade point average (GPA), English language proficiency requirements and any specific pre-requisite courses, and by meeting program accreditation or licensing requirements as evidenced in the Program Handbook for the specific program.

- Complete the following Program Admissions requirements with a "C" grade or higher in each:

Code	Title	Credit Hours
BIO-2331	Anatomy and Physiology I <sup>1,2</sup>	4
BIO-2341	Anatomy and Physiology II <sup>1</sup>	4
DMS-1071	Concepts of Physics in Diagnostic Sonography <sup>3</sup>	2
DMS-1303	Introduction to Sonography <sup>3</sup>	2
DMS-1320	Introduction to Sonographic Scanning <sup>3</sup>	1
DMS-1351	Patient Care Skills	1
MATH-1410	Elementary Probability and Statistics I (or higher) <sup>4</sup>	3
Select one of the following:		3
ENG-1010	College Composition I	
ENG-101H	Honors College Composition I	

<sup>1</sup> Minimum 3.0 GPA for BIO-2331 and BIO-2341 (total 8 credits). GPA calculated using only the Tri-C specific admission course credit hours listed above.

<sup>2</sup> Requires appropriate placement score on Biology placement test or grade of "C" or higher in BIO-1100 to enroll in this course.

<sup>3</sup> Minimum 3.0 GPA for DMS-1303 Introduction to Sonography, DMS-1320 and DMS-1071 (total 5 credits). GPA calculated using only the Tri-C specific admission course credit hours listed above.

<sup>4</sup> MATH-1240 Contemporary Mathematics taken before Fall 2024 will be accepted in place of MATH-1410 Elementary Probability and Statistics I to meet the math requirement for this program.

## Other Information

- Criminal background check required. Also see General Application Procedures for Health Careers.
- Enrollment in DMS-1320 is by departmental approval only. Students will receive departmental approval upon successful completion of DMS-1303 and DMS-1071.
- Only a maximum of two repeats to improve from a previous attempt(s) are permitted. Students may repeat one admission course twice OR two admission courses once to improve the GPA. A "W" is counted as an attempt.
- Applicant must submit evidence of good health by fulfilling health requirements of the DMS Program and verification of current CPR certification prior to clinical assignment. Complete information provided during the first semester of the Program.
- Enrollment in DMS-1320 is by departmental approval only. Students will receive departmental approval upon successful completion of DMS-1303 and DMS-1071.

## Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

- Exhibit an awareness of continuity of care through effective, empathetic communication and interpersonal skills.
- Display sensitivity to all aspects of diversity.
- Seek and accept opportunities for improvement by being a team player that is confident, flexible, and passionate about what they do.
- Exercise discretion, knowledge, and independent judgment in performing sonographic procedures, accessing medical information systems, and in seeking assistance.
- Integrate pertinent patient history, supporting clinical data, and data obtained using ultrasound and related diagnostic technologies to provide a summary of findings to the physician.
- Become a credentialed sonographer that continually educates oneself in sonography and in issues affecting the healthcare industry in recognition of the value of other modalities and professions.

Note: Students must select to pursue either option a or option b to complete this degree program. Letters in parenthesis refer to options (a) or (b).

## Suggested Semester Sequence

Program Admissions Requirements Semester		Credit Hours
BIO-2331	Anatomy and Physiology I <sup>1</sup>	4
BIO-2341	Anatomy and Physiology II	4
DMS-1071	Concepts of Physics in Diagnostic Sonography	2
DMS-1303	Introduction to Sonography	2
DMS-1320	Introduction to Sonographic Scanning	1
DMS-1351	Patient Care Skills	1
MATH-1410	Elementary Probability and Statistics I (or higher Approved Ohio Transfer 36 Mathematics course)	3
Select one of the following:		3
ENG-1010	College Composition I	
ENG-101H	Honors College Composition I	
<b>Credit Hours</b>		<b>20</b>
<b>First Semester</b>		
DMS-1311	Initial Sonographic Scanning	2
DMS-1381	Cardiac Diagnostic Procedures	3
Select one of the following:		4
DMS-1602	Echocardiography I (Option A)	
DMS-1701	Vascular Sonography I (Option B)	
<b>Credit Hours</b>		<b>9</b>
<b>Second Semester</b>		
DMS-1940	Field Experience I	1
DMS-2301	Intermediate Sonographic Scanning	2
MA-1010	Introduction to Medical Terminology <sup>2</sup>	2
Select one of the following:		4
DMS-2602	Echocardiography II (Option A)	
DMS-2702	Vascular Sonography II (Option B)	
Select one of the following		3

ENG-1020	College Composition II	
ENG-102H	Honors College Composition II	
<b>Credit Hours</b>		<b>12</b>
<b>Summer Session</b>		
DMS-1950	Field Experience II	2
DMS-2350	Sonographic Instrument/Physics	3
HTEC-1110	Ethics for Health Care Professionals <sup>3</sup>	1
<b>Credit Hours</b>		<b>6</b>
<b>Third Semester</b>		
DMS-2940	Field Experience III	3
DMS-2985	Physics Review	1
DMS-2991	Sonography Capstone	1
Select one of the following:		3
PSY-1010	General Psychology	
PSY-101H	Honors General Psychology	
<b>Credit Hours</b>		<b>8</b>
<b>Fourth Semester</b>		
DMS-xxxx	DMS Elective <sup>4</sup>	1-2
DMS-2950	Field Experience IV	1
DMS-2981	Specialty Registry Review	1
Select one of the following:		1-3
DMS-2650	Pediatric Cardiac Sonography (Option A) <sup>4</sup>	
DMS-2760	Transcranial Doppler Sonography (Option B) <sup>4</sup>	
PSY-1060	Cross-Cultural Competency for Health Care Providers	1
<b>Credit Hours</b>		<b>5-8</b>
<b>Total Credit Hours</b>		<b>60-63</b>

- <sup>1</sup> Requires appropriate placement score on Biology placement test or grade of "C" or higher in BIO-1100 to enroll in this course.
- <sup>2</sup> MA-1020 Medical Terminology I Medical Terminology I will be accepted in place of MA-1010 Introduction to Medical Terminology Introduction to Medical Terminology.
- <sup>3</sup> PHIL-2050 Bioethics Bioethics will be accepted in place of HTEC-1110 Ethics for Health Care Professionals Ethics for Health Care Professionals.
- <sup>4</sup> Course selection can only be used once toward a graduation requirement.

## Options

### (A) Echocardiography Option

Take the following courses to complete Option A:

Code	Title	Credit Hours
DMS-1602	Echocardiography I	4
DMS-2602	Echocardiography II	4
DMS-2650	Pediatric Cardiac Sonography	3
Additional program courses		51-52
<b>Total Credit Hours</b>		<b>62-63</b>

### (B) Vascular Option

Take the following courses to complete Option B:

<b>Code</b>	<b>Title</b>	<b>Credit Hours</b>
DMS-1701	Vascular Sonography I	4
DMS-2702	Vascular Sonography II	4
DMS-2760	Transcranial Doppler Sonography	1
Additional program courses		51-52
<b>Total Credit Hours</b>		<b>60-61</b>

## Electives

### Technical Electives

Select from the following courses to fulfill DMS elective option:

<b>Code</b>	<b>Title</b>	<b>Credit Hours</b>
DMS-2330	Sonographic Pathology	3
DMS-2450	Breast Sonography	2
DMS-2650	Pediatric Cardiac Sonography	3
DMS-2750	Principles of Vascular Imaging for Abdomen and Cardiac Sonographers	3
DMS-2760	Transcranial Doppler Sonography	1
DMS-2960	Supplemental Field Experience	2
DMS-2983	Supplemental Speciality Registry Review	1

MATH-1140, MATH-1141, MATH-1200, MATH-1270, and MATH-1280 can no longer count towards fulfilling the college-level mathematics requirement. These courses were re-classified as developmental mathematics by the state of Ohio in 2016. Tri-C established a 5-year transitioning window for students who had completed these courses prior to 2016 to apply them towards meeting graduation requirements, which expired in Summer 2021. It is highly recommended to see a counselor to determine the appropriate math required for your current major.