



**MIDDLESEX**  
Community College

# **Diagnostic Medical Sonography** *Associate in Science*

**Fall 2021**

## **Program Information and Admission Requirements**

*Accredited by the  
Commission on Accreditation of Allied Health Education  
Programs (CAAHEP), American Medical Association*

**Application Deadline:** Priority consideration will be given to completed applications, including all requirements and documentation, received by February 1, 2021. Final Admissions decisions will be made by April, 2021.

**Special Note Regarding Residency:** Non-Massachusetts residents will be admitted on a space available basis only.

## Program Description

The Diagnostic Medical Sonography Associate in Science degree program provides the knowledge and techniques required for specialization in the field of Diagnostic Medical Sonography. Students receive training in producing the ultrasound images used by physicians in the diagnosis of disease, injuries and other medical conditions. The curriculum has a general education component, with a concentration in relevant science courses. Students achieve proficiency in sonographic physics and instrumentation, obstetrical, gynecological, abdominal, vascular and pediatric sonography. There is an extensive clinical practicum which may include rotations through several clinical sites. The clinical rotation enhances student learning experiences. A great number of clinical affiliates are located throughout Massachusetts and New Hampshire. It will be the student's responsibility for transportation and related travel expenses when assigned. Graduates of the program are eligible to take the American Registry of Diagnostic Medical Sonographers certifying examination.

## Career and Transfer Outlook

Graduates of the program have a consistently high pass rate on the American Registry of Diagnostic Medical Sonographers (ARDMS) examination and, as a result, are certified for employment in ultrasound departments throughout the country.

## Technical Skills in Diagnostic Medical Sonography

The following is a list of standard and/or technical skills required for performing duties in the Diagnostic Medical Sonography field. These skills are not conditions for admission to the program, but do indicate abilities and characteristics necessary for successful completion of the Diagnostic Medical Sonography program, and to perform the duties of the career upon graduation. Students must:

- Demonstrate full range of motion; lifting 50 pounds routinely, reaching, kneeling, bending, stooping, squatting, crouching and standing 80% of the time and able to utilize arms, hands, and fingers to perform examinations and operate equipment
- Demonstrate that he/she can push a patient in a wheelchair or stretcher up to 400 feet.
- Possess emotional and physical health sufficient to meet the demands of the position.
- Demonstrate that he/she can push the ultrasound equipment (500 pounds) and maneuver this equipment along with patient equipment in the patient's room.
- Possess strength sufficient to lift some patients, move heavy equipment on wheels (up to approximately 500 lbs), and move patients in wheelchairs and stretchers.
- Maintain prolonged arm positions necessary for scanning.
- Respond appropriately to sounds, i.e. patient voice and movements, at a normal conversational volume.
- Respond appropriately to equipment signals such as sound and light.
- Manipulate mechanical and patients care equipment, i.e. dials, switches, push buttons, keyboards, and blood pressure equipment.
- Perform for a prolonged period without breaks, e.g., typical shift of eight hours.
- Demonstrate adequate visual acuity to differentiate among subtle shades of grey/color used in diagnostic sonography image formation.
- Use a transducer device in a back and forth manner in an awkward position while maintaining balance.
- Clearly and effectively communicate instructions and information to patients, and share information with other team members.

## Getting Started

Review and follow the Diagnostic Medical Sonography Admission Requirement Certification form to ensure that you have met the admission criteria below:

- Completion of college Anatomy & Physiology I and II with labs, with grades of B (83%) or higher within the last 5 years.
- Completion of college Physics, with a grade of C (73%) or higher within the last 5 years.
- Completion of the Supplemental Application.
- Eligible for ENG 101; eligibility may be demonstrated through placement, course enrollment, previous college coursework, or high school transcripts.
- Eligible for MAT 177; eligibility may be demonstrated through placement, course enrollment, previous college coursework, or high school transcripts.
- Submission of three Health Recommendation Forms. It is recommended that at least two Health Recommendation Forms be requested from individuals who can evaluate the applicant's performance in a work or classroom setting.
- Attendance at a DMS Information Session- sessions will begin September 2020 for students interested in applying for Fall 2021. Session schedule and registration is available at [www.middlesex.mass.edu/admissionrequirements/dmsoverview.aspx](http://www.middlesex.mass.edu/admissionrequirements/dmsoverview.aspx)

## Submitting a Complete Application

If you meet the admission requirements, the following forms must be submitted by the application deadline of February 1, 2021.

- A completed and signed Diagnostic Medical Sonography Admission Requirement Certification Form
- A completed Middlesex Community College Application
- A completed Supplemental Admission Application
- Official college transcripts (required from all colleges attended, except Middlesex Community College)
- Three health recommendation forms.

## Admission Information

Admission to the program is competitive. The availability of appropriate clinic placement sites, an integral component of the program, requires us to limit admission. For the Fall 2020 class, only one of every four qualified applicants was offered admission. The admission committee will review applications in their entirety. In addition to the admission requirements listed above, successful applicants will have documented success in science courses. Academic history will also be considered and students are required to have a minimum cumulative 2.5 GPA. The supplemental application will be read by an admissions selection committee.

The Diagnostic Medical Sonography program is a full-time 24 month academic program which includes two summers during your enrollment, one of which takes place the summer after May graduation.

Non-Massachusetts residents will be admitted on a space available basis only. We were unable to admit any out of state residents in the Fall of 2020. All sonography classes are held during the day at Middlesex Community College's Bedford campus. Transportation to off-campus clinical sites is not provided. The required hospital clinical internship requires up to 3 days per week for 5 clinical practicums, including 2 summer practicums. This is an unpaid internship.

The ARDMS may deny, revoke or otherwise take action with regard to application or recertification of an applicant or registrant in the case of, the conviction of, plea of guilty, or plea of nolo contendere to a crime which is directly related to public health or the provision of diagnostic medical sonography services.

## Risk of Exposure to Blood Borne Pathogens:

Category I – Sonography tasks involve exposure to blood, body fluids, or tissues.

## Requirements After Admission to Diagnostic Medical Sonography Associate in Science Program

- Students must submit the **Required Student Health Record** form, provided by Middlesex Community College. Required documentation of health status includes a completed physical examination, a two-step Mantoux (TB/PPD) skin test or blood test (T-Spot or Quantiferon Gold) for tuberculosis, a color deficiency test, proof of immunization against Measles, Mumps, Rubella, Varicella, a positive Hepatitis B titer, one lifetime dose of TDAP (Tetanus/Diphtheria/Acellular Pertussis – after 2006), and one dose of MenACWY meningococcal vaccine administered on or after 16th birthday for any newly enrolled full-time student 21 years of age or younger.
- Earn and submit a current certification in CPR at the Health Care Provider-level (offered monthly at MCC) which is valid for the entire academic year and renewed annually.
- Students will be asked to complete a CORI (Criminal Offender Record Information) and SORI (Sex Offender Registry Information) check. The results of the CORI/SORI check may impact the student's ability to participate in clinical courses.
- Students must maintain a grade of C or better in all SON courses within the area of specialization to remain in the program.
- Upon graduation from the college, students are required to continue in the post-graduate clinical affiliation to complete the program and become eligible to take the national certification examination of the American Registry of Diagnostic Medical Sonographers.
- Students enrolled in the Diagnostic Medical Sonography program must maintain a satisfactory level of performance in clinical settings in order to remain in the program. See the academic catalog for additional information.
- Students accepted into health programs must be in compliance with the current immunization requirements specified by the Massachusetts Department of Public Health for Health Care Personnel (HCP) and in accordance with state law, MGL, Chapter 76, Section 15C and its regulations at 105 CMR 220.000-220.700 in order to participate in an externship placement or clinical experience. Students may also be required to meet additional requirements of the particular health program and/or clinical agency.
- In addition to tuition costs, students are responsible for fees that will likely include uniforms, equipment, and parking at clinical sites.

## Criminal Offender Record Information and Sex Offender Registry Information Checks

In order for a student to be eligible to participate in an academic, community or clinical program that involves potential unsupervised contact with children, the disabled, or the elderly, the student may be required to undergo a Criminal Offender Record Information (CORI) check and/or a Sex Offender Registry Information (SORI) check. Students found to have certain criminal convictions or pending criminal actions will be presumed ineligible to participate in such activities. The College is authorized by the Commonwealth's Criminal History Systems Board, pursuant to Massachusetts General Laws, Chapter 6, Sections 167-178B, to access CORI records. The College shall refer to regulations issued by the Commonwealth's Executive Office of Health and Human Services, 101 Code of Massachusetts Regulations 15.00-15.16, as guidance when assessing student CORI records. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P. If a student is allowed to enroll or participate in the Diagnostic Medical Sonography Program despite having certain criminal convictions or pending criminal actions, this is no guarantee that a future employer would also disregard such criminal record. Some clinical sites may require the students undergo CORI checks for any state they have lived in the past 5-7 years.

For more information regarding Middlesex Community College's CORI/SORI check process, please contact Human Resources at <https://www.middlesex.mass.edu/humanresources/> or call 781-280-3527.

## Services Available to Middlesex Community College Students

Advising is available in our Academic and Transfer Advising Centers. Academic advising is a valuable service, since all applicants are responsible for fulfilling the precise requirements of the program in order to be considered for admission. Advising appointments may be made by calling 1-800-818-3434.

Students are encouraged to apply for Financial Aid to help meet the expenses of attending college. The Financial Aid office packages awards for each student, based upon the student's eligibility and financial need, fund restrictions and fund availability. More information on Financial Aid can be requested by emailing [financialaid@middlesex.mass.edu](mailto:financialaid@middlesex.mass.edu) or by calling Financial Aid in Bedford at 781-280-3650 or Lowell at 978-656-3242.

## Diagnostic Medical Sonography Associate in Science Curriculum

Course Title	Course Number	Credits	Prerequisites
Introduction to Scanning	SON 100	3	
Sonographic Physics and Instrumentation I	SON 101	3	
Principles of Abdominal Sonography	SON 102	3	
Sonographer Role and Patient Care	SON 103	3	
Sonographic Physics and Instrumentation II	SON 104	3	
Cross-Sectional Anatomy	SON 107	2	
Associated Imaging	SON 109	1	
Clinical Practicum I	SON 121	2	
Clinical Practicum II	SON 122	3	
Sonographic Subspecialties	SON 202	2	
Principles of Gynecologic Sonography	SON 207	3	
Principles of Obstetrical Sonography I	SON 209	3	
Principles of Obstetrical Sonography II	SON 210	3	
Pediatric Sonography	SON 211	1	
Clinical Practicum III	SON 221	3	
Clinical Practicum IV	SON 222	3	
Clinical Practicum V	SON 228	3	
Vascular Technology I	SON 251	3	
Vascular Technology II	SON 252	3	
English Composition I	ENG 101	3	Completion with a grade of B or better of ENG 088, ENG 089, or ENG 092; or placement by exam
English Composition II	ENG 102	3	C- or better in ENG 101
General Education Humanities Elective	_____	3	
Statistics	MAT 177	3	Eligible for ENG 101; placement above or completion of MAT 080 with a C or better or completion of Math Module 12, 73, or 82
Introduction to Psychology	PSY 101	3	Eligible for ENG 101
General Education Social Science Elective	_____	3	
Total credits		68	

Please refer to the Middlesex Community College Academic Catalog (<http://catalog.middlesex.mass.edu/>) for Sonography course sequencing, prerequisite and corequisite information.

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