

# DIAGNOSTIC MEDICAL SONOGRAPHY (ULTRASOUND)

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## Overview

**Degrees Offered:** AAS

**Limited Enrollment:** Yes

**Program Begins:** Fall

**Delivery Method:** On Campus (Lecture/Lab), Clinical Affiliate (Clinical Ultrasound Internship)

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## Description

**Program Goal:** To prepare competent entry-level sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains for the Abdominal - Extended and Obstetrics and Gynecology Sonography concentrations.

The mission of the Diagnostic Medical Sonography (DMS) program is to provide a high-quality, learning-centered education in diagnostic medical sonography theory and practice that maximizes student learning and makes students partners in their education.

A Diagnostic Medical Sonographer utilizes a transducer that emits high-frequency sound waves to obtain images of various organs and tissues in the body. Students will be prepared to perform abdominal, small parts, gynecological, and obstetrical ultrasounds. Additional instruction in vascular sonography is provided concurrently to broaden the knowledge and experience and prepare the students for a variety of ultrasound examinations. The DMS program is four consecutive semesters, excluding the required program prerequisites, starting every fall. The first two semesters of the program consist of classroom and scanning lab instruction on the Bismarck State College campus in the Health Sciences building. The final two semesters are a seven-month clinical ultrasound internship where students get in-field experience, utilizing the skills gained from the synchronous theory and lab courses. The clinical affiliate is a third-party entity into which the students are placed.

## Preparation

Students interested in entering the DMS program should have a strong background in science, especially in anatomy and physiology and physics. Successful students have a strong sense of responsibility, patience, and manual dexterity.

## Requirements

This program is highly selective. The admission process is competitive due to the limited number of positions available, and the DMS program may not be able to accept all applicants that meet the minimum admission standards. See the Program Admission (p. 1) tab for more information.

Students who successfully complete the curriculum requirements earn an Associate in Applied Science Degree in Diagnostic Medical Sonography and are eligible to complete a series of examinations to earn a Registered Diagnostic Medical Sonographer (RDMS) credential.



*This program receives funding from the U.S. Department of Labor; therefore, veterans and eligible spouses receive priority of service over non-covered persons. (20 CFR 1010)*

## Career Opportunities

DMS professionals are in high demand nationwide at a wide variety of healthcare institutions, including but not limited to clinics, hospitals, private offices, education, breast centers, and medical supply sales companies.

## College Admission

Review BSC's How to Apply page and complete the college admission requirements.

## Program Admission

### Pre-Application Requirements

Prior to applying to the DMS program applicants should:

- Show a required minimum cumulative GPA: 3.0
- Show a required minimum program GPA: 3.0
  - This is made up of 1st year fall and spring semester Prescribed Program and Prescribed Electives courses.

- Show successful completion, or current enrollment in, the following college courses: algebra or statistics; general college-level physics and/or radiographic physics; communication courses such as speech or composition; and human anatomy and physiology.
- Complete the Essential Academic Skills Test - Ultrasound Student Assessment (USA) administered by Pegasus Lectures.
- Show valid American Heart Association (AHA) Basic Life Support (BLS-Healthcare Provider) CPR certification.

**Note:** CPR Certification must remain valid through the entire Program.

### Application

Applications will be accepted between **March 1st and April 1st**.

- Submit DMS Program application
- Two recommendations and DMS Technical Standards

### Pre-Acceptance

**Application Receipt:** Upon receipt of all application requirements, the Diagnostic Medical Sonography program will conduct an initial evaluation of the applicant's file to determine top twenty candidates.

**Note:** If the applicant's native language is not English, the DMS program will inform the applicant that an English Language Proficiency Test is required. A certain level of English proficiency is necessary for academic success in sonography as well as for patient safety. In addition to general college English proficiency requirements, all applicants for whom English is not their native language (including International and/or U.S. residents) and have not attended 4 years of U.S. high school and achieved a HS GPA of 3.0 or higher must meet additional language proficiency requirements for admission to the Diagnostic Medical Sonography Program.

### Minimum TOEFL Scores for Admission to the DMS Program

To be considered for admission to the DMS Program, English as a second language (ESL) applicants must achieve minimum scores on the TOEFL internet-based test (TOEFL iBT) of:

- Minimum Cumulative Score of 86
- AND Minimum Individual Scores of:
  - 26 in Speaking
  - 20 in Writing
  - 20 in Reading
  - 20 in Listening

### Minimum Duolingo English Test Scores for Admission

- Minimum Overall Score of: 115
- It is expected that the applicant reaches a content score (variation as determined by the admission and progression committee) of 90 in the following four areas:
  - Literacy (Reading)
  - Comprehension (Listening)
  - Conversation (Speaking)
  - Production (Writing)

**Interview:** An interview will be scheduled with the top twenty scoring candidates. The DMS program may interview more than twenty candidates if a situation deems necessary such as a tie in scoring, declined interviews, etc.

**Post Interview Application Scoring:** Following the interview, applicants will be reassessed on past academic performance, Ultrasound Student Assessment results, recommendations, career statement responses, previous experience, interview, and overall quality of application.

### Post-Acceptance

Once accepted into the program, students will be required to successfully complete a medical examination, background check, immunizations required by clinical affiliations, and drug screen at their own cost.

**Note:** Clinical affiliates maintain sole discretion as to the student's ability to participate in the Clinical Ultrasound Internship.

### Program Completion

- Students are required to earn "C" or higher or "T" (test credit) or "S" (satisfactory) in all designated courses for successful completion of the program.

- Students must successfully complete a series of examinations to earn a Registered Diagnostic Medical Sonographer (RDMS) credential. Those exams include the Sonographic Principles and Instrumentation (SPI) examination and the corresponding specialty Abdomen and Obstetrics & Gynecology Examinations.

## Degree Plan

- Diagnostic Medical Sonography (Ultrasound) Associate in Applied Science

## Program Learning Outcomes

Upon graduation, Diagnostic Medical Sonography students will be able to:

- Demonstrate the ability to obtain, review and integrate relevant patient data to facilitate diagnostic results.
- Perform Abdominal-Extended and Obstetric and Gynecologic sonographic procedures and record anatomic, pathologic and/or physiological data for interpretation by a physician to assist with the diagnosis and treatment of patients.
- Exhibit discretion, judgment and problem solving in the performance of sonographic procedures.
- Demonstrate effective oral, written and nonverbal communication with patients, members of the healthcare team and others.
- Understand the principles and practices of professional conduct.