

# Proposal for New Sonography Program

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## Background

During the initial discussion and planning phase of the Mont Belvieu Campus, a Programmatic Planning Committee was formed. The committee consisted of a combination of Lee College and Barbers Hill ISD employees who participated in a series of meetings to discuss the best program offerings for a potential Mont Belvieu Campus.

During that process, the group toured facilities at San Jacinto College, reviewed common career pathways for Barbers Hill ISD students, and examined labor market data in order to come to the best possible options for the campus. Additionally, we wanted to ensure we were offering both associate degree options and short-term credential opportunities.

The committee ultimately decided on the following programs:

- Respiratory Therapy (AAS) – new program
- Sonography (AAS) – new program
- Sterile Processing Technician (certificate) – new program
- Cybersecurity (certificate & AAS) – will move locations
- Cloud Computing (certificate) – will move locations
- Computer Networking (certificate & AAS) – will move locations
- Computer Maintenance (certificate & AAS) – will move locations

The college is currently recruiting for a Program Director for Sonography to lead the development of the program.

## The Program

The proposed program is an Associate of Applied Science in Sonography with a concentration in Adult Cardiac sonography. Sonographers use ultrasound to image the heart and blood vessels and perform examinations under the direction of physicians. Graduates are eligible to sit for the national credentialing examinations of the American Registry for Diagnostic Medical Sonography (ARDMS) provided that the program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and receives the recommendation of the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS). Approval of the program by the Board of Regents is one of the necessary elements of accreditation.

## Labor Market Data

Labor market data for Chambers and Harris counties (Lightcast, October 2026) show strong demand for Cardiovascular Technologists and Technicians, the occupation group that includes cardiac sonographers.

| <b>MEDIAN<br/>SALARY (2025)</b> | <b>2023 JOBS</b> | <b>2026 JOBS</b> | <b>JOB GROWTH<br/>2023 TO 2026</b> | <b>UNIQUE JOB<br/>POSTINGS IN<br/>PAST YEAR</b> |
|---------------------------------|------------------|------------------|------------------------------------|-------------------------------------------------|
| \$62,240                        | 1,025            | 1,290            | 264 (25.8%)                        | 1,037                                           |

Regional employment grew 25.8% from 2023 to 2026. Employers posted 4,424 unique job postings from January 2023 through September 2026, including 543 from Houston Methodist, 512 from Memorial Hermann, 395 from HCA Healthcare, 154 from Harris Health System and 69 from Texas Children’s Hospital.

Employers ask for the credentials this program prepares students to earn. Of the postings, 643 request American Registry for Diagnostic Medical Sonography (ARDMS) certification, 615 request the Registered Diagnostic Cardiac Sonographer (RDCS), 491 request the Registered Cardiac Sonographer (RCS), and 143 request the Registered Vascular Technologist (RVT). As previously mentioned, graduates will be eligible to sit for these credentialing examinations provided that the program receives accreditation.

The regional median wage for the occupation group is \$62,240; the group also includes EKG and monitoring technicians. Of the 1,363 postings that list a salary, the median advertised salary is \$99,584. Nationally, the U.S. Bureau of Labor Statistics reports a median wage of \$67,260 (May 2024) and projects 3% employment growth from 2024 to 2034.

Texas Career Check, the Texas Workforce Commission labor market tool, reports for Cardiovascular Technologists and Technicians (SOC 29-2031) statewide employment of 5,335 in 2024, projected to reach 6,049 by 2034, an increase of 13.4%, with about 379 projected annual openings and a statewide median annual wage of \$53,001. In the Gulf Coast region (Region 28), employment is 1,317, projected to reach 1,528 by 2034, with about 98 projected annual openings and a median annual income of \$60,633. These figures include EKG and monitoring technicians and therefore understate sonographer wages.

## Curriculum Plan

The curriculum consists of prerequisite courses followed by five semesters of professional coursework, for a total of 65 SCH. While the Texas Higher Education Coordinating Board has a 60-credit hour limit on applied associate degrees, there is a statewide exemption for Diagnostic Medical Sonography programs to have up to 65 credit hours.

The degree plan is shown below and is modeled against similar programs across Texas. The degree plan will be finalized by the Sonography Program Director before it is submitted to the Curriculum and Academic Affairs Committee, the Texas Higher Education Coordinating Board and the Joint Review Committee on Education in Diagnostic Medical Sonography.

## PRE-REQUISITE COURSES

| Course    | Course Name                           | SCH       |
|-----------|---------------------------------------|-----------|
| MATH 1314 | College Algebra                       | 3         |
| ENGL 1301 | English Composition I                 | 3         |
| PHYS 1401 | College Physics I: Mechanics and Heat | 4         |
| BIOL 2401 | Human Anatomy and Physiology I        | 4         |
|           | <b>TOTAL SCH</b>                      | <b>14</b> |

## SEMESTER 1

| Course    | Course Name                                                                    | SCH       |
|-----------|--------------------------------------------------------------------------------|-----------|
| DSAE 1415 | Principles of Adult Cardiac Sonography                                         | 4         |
| DMSO 1302 | Basic Ultrasound Physics                                                       | 3         |
| DSAE 2303 | Cardiovascular Concepts                                                        | 3         |
| DSAE 1260 | Clinical - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician | 2         |
|           | <b>TOTAL SCH</b>                                                               | <b>12</b> |

## SEMESTER 2

| Course    | Course Name                                                                                           | SCH       |
|-----------|-------------------------------------------------------------------------------------------------------|-----------|
| DMSO 1342 | Intermediate Ultrasound Physics                                                                       | 3         |
| PSYC 2301 | Introduction to Psychology                                                                            | 3         |
| DSAE 1264 | Practicum (or Field Experience) - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician | 2         |
| DSAE 2404 | Cardiac Sonography Pathophysiology I                                                                  | 4         |
|           | <b>TOTAL SCH</b>                                                                                      | <b>12</b> |

## SEMESTER 3

| Course    | Course Name                                                                                           | SCH      |
|-----------|-------------------------------------------------------------------------------------------------------|----------|
| DSAE 2264 | Practicum (or Field Experience) - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician | 2        |
| DSAE 2337 | Cardiac Sonography Pathophysiology II                                                                 | 3        |
| DSVT 2330 | Cerebral Vascular Evaluation                                                                          | 3        |
|           | <b>TOTAL SCH</b>                                                                                      | <b>8</b> |

## SEMESTER 4

| Course    | Course Name                                                                                           | SCH       |
|-----------|-------------------------------------------------------------------------------------------------------|-----------|
| DSAE 2335 | Advanced Cardiac Sonography                                                                           | 3         |
| DSAE 2365 | Practicum (or Field Experience) - Diagnostic Medical Sonography/Sonographer and Ultrasound Technician | 3         |
| DSVT 2318 | Peripheral Vascular Evaluation                                                                        | 3         |
| ARTS 1301 | Art Appreciation (Creative Arts Core)                                                                 | 3         |
|           | <b>TOTAL SCH</b>                                                                                      | <b>12</b> |

## SEMESTER 5

| Course    | Course Name                                                                | SCH      |
|-----------|----------------------------------------------------------------------------|----------|
| DSAE 2255 | Advanced Cardiac Sonography and Review                                     | 2        |
| DSVT 2235 | Advanced Vascular Technology                                               | 2        |
| DMSO 2357 | Advanced Ultrasound Professionalism and Registry Review (Program Capstone) | 3        |
|           | <b>TOTAL SCH</b>                                                           | <b>7</b> |

## TOTAL PROGRAM: 65 SCH

Physics is included in the prerequisites because ultrasound imaging depends on the behavior of sound. PHYS 1401 covers mechanical waves and sound, which gives students the foundation for the ultrasound physics courses (DMSO 1302 and DMSO 1342) and helps sonographers understand how images are formed, why artifacts appear, and how to adjust equipment to obtain diagnostic images. Passing the Sonography Principles and Instrumentation (SPI) examination meets the American Registry for Diagnostic Medical Sonography (ARDMS) physics requirement and is the foundation for ARDMS credentials such as the RDMS, RDCS and RVT, so this physics preparation supports students' progress toward credentialing.

## Timeline

We are aiming to start the program in Fall 2028. Admission of the first cohort depends on approval by the Texas Higher Education Coordinating Board and the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), and on confirmation from JRC-DMS that the program may enroll students while its accreditation application is pending. Programmatic accreditation by CAAHEP follows a self-study and a site visit; it is not guaranteed, and JRC-DMS sets no time frames for the process.

## Summary

After careful research and discussion, a programmatic planning committee chose Sonography as a key program to offer at the Lee College - Mont Belvieu Campus. The labor market data shows strong growth in job opportunities for our area and strong advertised wages. We request formal approval by the Board of Regents to pursue approval of the Sonography program by the THECB, SACSCOC, and CAAHEP.