

PROGRAM PLANNING SUMMARY
State Board for Technical and Comprehensive Education

- 1. College:** Greenville Technical College
- 2. Award:** Associate Degree in Health Science
- 3. Major:** Diagnostic Medical Sonography
- 4. Designation:** Program modification: 77 credit hours
- 5. Proposed Date of Implementation:** Fall 2007
- 6. Justification of Need:**

Greenville Technical College (GTC) proposes to offer an Associate Degree in Health Science with a major in Diagnostic Medical Sonography (DMS). Diagnostic medical sonographers, also known as ultrasound and/or vascular technologists, use high frequency sound waves to image organs, masses, and fluid accumulations within the human body. Sonography is becoming an increasingly attractive alternative to radiologic procedures as patients seek safer treatment methods. Unlike most diagnostic imaging methods, sonography does not involve radiation, so harmful side effects and complications from repeated use are less common for both the patient and the sonographer (<http://www.collegegrad.com/careers/proft92.shtml#emp>). Sonographic technology is expected to evolve rapidly and to spawn many new sonography procedures, such as 3D- and 4D-sonography for use in obstetric and ophthalmologic diagnosis (<http://www.bls.gov/oco/ocos273.htm#outlook>). Physicians rely on quality images provided by highly skilled sonographers in order to properly diagnose patients' conditions and to ensure the best health care possible.

Employment opportunities in the field of DMS continue to increase as hospitals and outpatient care centers expand to meet the needs of the Upstate area's population growth. Diagnostic medical sonographers and registered vascular technologists (RVT), a specialty within the DMS field, find positions in hospitals, medical clinics, and physician's private practice offices. Employment in DMS is projected to grow at a faster rate than the average for all occupations through 2014 as the population grows and ages, which will create an increased demand for diagnostic imaging and therapeutic technology (<http://www.collegegrad.com/careers/proft92.shtml#emp>). In addition to job openings created by population growth and aging, employment opportunities will arise from the need to replace sonographers who retire or change careers (<http://www.bls.gov/oco/ocos273.htm#outlook>). Currently, a registered sonographer with an associate degree is one of the top ten paid professions, with an entry salary range of \$40,000 to \$60,000 annually (<http://www.cnn.com/2006/US/Careers/05/04/cb.associates/>).

The South Carolina Hospital Association reported that 37% of hospitals report a workforce challenge regarding sonographers. Additionally, more than 35% of the hospitals reported that it took more than 120 days to fill positions in ultrasound

(http://www.scha.org/document.asp?document_id=40,4569,47). A recent employment needs survey reveals a shortage of diagnostic medical sonographers and RVTs in the Upstate area, which is affecting local health care facilities ability to meet local needs. According to the employment needs survey, one local lab presently has an immediate need of 4 RVTs.

GTC currently offers a Diploma in Health Science with a major in DMS. However, the DMS diploma program is at the maximum allowed credit hours with no space to incorporate vascular technology training into the current curriculum. Also, based on the recommendations from the College's Medical Imaging Advisory Committee, various medical facilities, and students, there is a strong need for additional clinical hours with more practice in diagnostic imaging in the curriculum.

7. Anticipated Program Demand and Productivity

The Employment Needs Survey conducted in the 5 counties of the Upstate area with written permission from Tri-County Technical College (TCTC), Piedmont Technical College (PTC), and Spartanburg Community College (SCC) revealed the following openings:

	2007	2008	2009
Full Time	27	22	16
Part Time	2	1	1
Total	29	23	17

8. Assessment of Extent to Which Proposed Program Duplicates Existing Programs in the State

GTC is the first technical college in the state to propose to offer an associate degree program in DMS. As noted earlier, GTC currently has the only diploma program in DMS in the technical college system. This program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and is recognized as being in compliance with nationally established standards. This accreditation indicates that the DMS diploma program has an appropriate curriculum, which includes the competencies needed for success in the field upon completion. Also, the CAAHEPP accreditation provides graduate the opportunity to sit for certification and licensure exams and obtain employment in accredited medical facilities.

9. Relationship of Proposed Program to Existing Programs at Proposing Institution

GTC currently offers a diploma program in DMS. The College plans to close the DSM diploma program when the proposed associate degree program is approved. Students who are presently enrolled in the DMS diploma program will be allowed to graduate from the diploma program or students may chose to transfer into the proposed DMS associate degree program. The proposed programs also will provide alternative course selections for students in other health science programs such as radiologic technology.

10. Relationship of Proposed Program to Other Institutions Via Inter-Institution Cooperation

As noted earlier, the employment need surveys were conducted throughout the entire Upstate area with written permission from TCTC, PTC, and SCC. The College surveyed outside of its service area because the number of sonographers needed within a specific hospital or medical facility is extremely small in comparison to other health science fields such as nursing or diagnostic radiology. One DSM degree program can sufficiently support the industry demands in the Upstate area at this time. Currently, students enrolled in the DMS diploma program are successfully placed in medical facilities throughout the Upstate for clinical practice.

11. Total Costs Associated with implementing Proposed Program (General Estimates Only)

To support the DMS diploma program, the College established an ultrasound scanning lab which contains two ultrasound machines and an UltraSim scanning simulator. There is no immediate need to purchase additional equipment. The DMS diploma program has one full-time faculty member who teaches and serves as the program coordinator and one part-time faculty member who teaches and serves as the clinical coordinator. The College plans to close the DSM diploma program when the proposed associate degree program is approved. Therefore, the proposed program conversion will not immediately require additional personnel. All of the general education courses required for the proposed program currently exist within the College's course offerings. This will give the College the benefit of economies of scale in offering those courses that are applicable to other related health care professional programs.