



Program Planning Guide

Pre-Medical Sonography Program (A55280MS)

The Pre-Medical Sonography program builds the academic and professional foundation students need to succeed in a Medical Sonography degree program and in their future roles as diagnostic medical sonographers. The program focuses on developing core knowledge essential to ultrasound practice, including introductory anatomy, physiology, and microbiology, with an emphasis on how these concepts relate to imaging, patient safety, and clinical decision-making. Through foundational science coursework, students gain the background needed to understand human body systems, recognize normal versus abnormal findings, and prepare for the rigor of sonography-specific coursework, clinical training, and ultrasound physics.

In addition to scientific preparation, the program emphasizes communication, critical thinking, and college-level success skills required in healthcare environments. Coursework in writing, social psychology, and transfer and career success strengthens students' ability to communicate clearly, work effectively with diverse patients and healthcare teams, and function professionally in clinical settings. This academic foundation supports success in competitive Medical Sonography programs and prepares students to sit for registry examinations administered by the American Registry for Diagnostic Medical Sonography (ARDMS), including the Sonography Principles and Instrumentation (SPI/physics) examination and an ultrasound specialty examination.

The pre-Medical Sonography program is designed as a preparation track and does not lead to a degree. Students who decide not to pursue Medical Sonography will need to work with their Education Navigator to transition into a different degree pathway.

Pre-Medical Sonography Program General Education Classes:

Required Program Courses		Class	Lab	Credits	Notes:
ACA 122	Transfer & Career Success	0	2	1	Seated or online
BIO 163	Basic Anatomy & Physiology	4	2	5	Seated
Elective	Communication/English	3	0	3	Seated or online
Elective	Mathematics	2/3	2	3/4	Seated or online
ENG 111	Writing & Inquiry	3	0	3	Seated or online
PHI 240	Introduction to Ethics	3	0	3	Seated or online
PHY 110/110A	Conceptual Physics with Lab	3	2	4	Seated or online
PSY/SOC	PSY 150 or SOC 210	3	0	3	Seated or online

A minimum grade of B must be earned in all science classes (BIO 163 and PHY 110/110A). A minimum grade of C must be earned in all other classes for the medical sonography program.

Communication/English Elective Options: Pick one: COM 110, **COM 120***, COM 231, ENG 111, ENG 112, ENG 114

Mathematics Elective Options: Pick one: MAT 143, MAT 152, or MAT 171. Students can also take PHY 151 and MAT 171 in place of PHY 110/110A and MAT 143 or in place of PHY 110/110A and MAT 152

Approved Biology Substitutions: Can substitute BIO 165/166 or BIO 168/169 for BIO 163

***Recommended for MS students**



Pre-Medical Sonography Suggested Course Schedule:

		Class	Lab	Clinical	Credits	Notes:
1st Semester (fall)						
ACA 122	Transfer & Career Success	0	2	0	1	Seated or online
ENG 111	Writing & Inquiry	3	0	0	3	Seated or online
PHY 110	Conceptual Physics	3	0	0	3	Seated or online
PHY 110A	Conceptual Physics Lab	0	2	0	1	Seated or online
PSY/SOC	PSY 150 or SOC 210	3	0	0	3	Seated or online
	Total Semester Hours	9	4	0	11	
2nd Semester (spring)						
BIO 163	Basic Anatomy & Physiology	4	2	0	5	Seated
Elective	Communications Elective	3	0	0	3	Seated or online
Elective	Mathematics Elective	2/3	2	0	3/4	Seated or online
PHI 240	Introduction to Ethics	3	0	0	3	Seated or online
	Total Semester Hours	12/13	4	0	14/15	



Planning for Your Future as a Medical Sonographer:

Earning a bachelor's degree builds on the clinical knowledge and hands-on imaging experience you gain as a diagnostic medical sonographer and prepares you for expanded roles within today's healthcare system. Bachelor's programs related to medical sonography, such as medical imaging sciences, health sciences, healthcare administration, or allied health leadership, focus on advanced concepts in healthcare delivery, leadership, ethics, research, quality improvement, and healthcare systems. These programs strengthen your ability to think critically, analyze clinical and operational data, understand regulatory and compliance requirements, and recognize how patient safety, technology, and social and cultural factors influence diagnostic outcomes and care delivery.

At the bachelor's level, you will develop leadership, communication, and problem-solving skills that allow you to move beyond entry-level imaging responsibilities and contribute to departmental operations, education, quality assurance, and process improvement. You will gain a broader understanding of how healthcare teams function and how sonographers support efficiency, accuracy, and patient-centered care across clinical settings. A bachelor's degree can open the door to higher-paying positions, supervisory and administrative roles, clinical education opportunities, and graduate study in healthcare-related fields. Most importantly, it prepares you to take on greater responsibility, adapt to advances in imaging technology and healthcare delivery, and make a meaningful impact on both patient care and the healthcare system as a whole.

After completing the required courses for admission to the sonography program, students who plan to earn a bachelor's degree in the future may take the following recommended courses while waiting to begin the program or while enrolled in the program. These courses are commonly transferable to universities and may apply toward bachelor's degree requirements, depending on the receiving institution. Please see the college catalog for course descriptions.

Recommended Courses (Take one class from each row)		Class	Lab	Credits	Notes:
HIS 131 HIS 132	American History I American History II	3	0	3	Seated or online
GEL 111	Geology	3	2	4	Online
HEA 110	Personal Health/Wellness	3	0	3	Seated or online
MAT 152 MAT 171	Statistical Methods I Precalculus Algebra	3	2	4	Seated or online
ECO 251	Prin of Microeconomics	3	0	3	Seated or online
PSY 241 PSY 281 SOC 210	Social Psychology Abnormal Psychology Introduction to Sociology	3	0	3	Online
SPA 111	Elementary Spanish I (see note below)	3	0	3	Seated or online
SPA 112	Elementary Spanish II	3	0	3	Seated or online
SPA 211	Intermediate Spanish I	3	0	3	Seated or online
SPA 212	Intermediate Spanish II	3	0	3	Seated or online

A minimum grade of C must be earned in all classes that transfer to a university for a bachelor's degree.



For students interested in continuing their education and expanding career opportunities, bachelor's degree pathways are available that build on the knowledge and skills gained in medical sonography.

[Appalachian State University - Bachelor of Science in Health Care Management](#)

The Appalachian State University Bachelor of Science in Health Care Management is a strong option for Medical Sonography graduates who want to expand their career opportunities beyond hands-on imaging roles. The program builds on students' clinical and healthcare experience and prepares graduates for leadership, supervisory, and administrative positions through coursework in healthcare systems, management, finance, quality improvement, and health policy. Offered in a flexible, distance-based format, the program is well-suited for working sonographers and transfer students seeking long-term career growth in healthcare leadership.

[East Carolina University - Bachelor of Science in Health Services Management](#)

The East Carolina University Bachelor of Science in Health Services Management provides a clear pathway for Medical Sonography professionals who want to transition from direct patient imaging into leadership or administrative roles while remaining in the healthcare field. The program builds on clinical and operational experience and focuses on healthcare leadership, organizational management, systems, and policy. Delivered as an online degree-completion program, it allows working sonographers to continue practicing while preparing for roles in healthcare administration, imaging department management, and care coordination.

[North Carolina Wesleyan College - Bachelor of Science in Healthcare Administration](#)

The North Carolina Wesleyan College Bachelor of Science in Healthcare Administration is a practical pathway for Medical Sonography graduates who want to move into leadership, supervisory, or administrative roles within healthcare organizations. The program builds on existing clinical experience and emphasizes healthcare management, policy, finance, and quality improvement. Designed for working adults, it offers flexible learning options that support career advancement beyond direct patient care and imaging-focused responsibilities.

Spanish is not required for all bachelor's programs, but it is strongly recommended for pre-health students because it significantly improves communication with a large and growing Spanish-speaking patient population. Being able to speak Spanish builds trust, reduces misunderstandings, and helps prevent errors in patient care. Employers in healthcare provide stipends to bilingual employees, making Spanish a powerful advantage for anyone preparing for a health science career. The following Spanish courses are available for pre-health students, but are not always part of a transfer agreement: SPA 111, SPA 112, SPA 211, SPA 212

Students who have questions about the pre-Medical Sonography program should contact their Education Navigator.