

# SONOGRAPHY

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The St. Mary's/Marshall University Sonography Degree program offers a comprehensive curriculum designed to equip students with the knowledge and skills necessary to excel in the dynamic field of diagnostic medical sonography. This program provides a strong foundation in both **Adult Echocardiography** and **General Sonography**, preparing graduates to work effectively in diverse healthcare settings, such as hospitals, clinics, and imaging centers.

- Sonography, B.S. (<http://catalog.marshall.edu/undergraduate/programs-az/health-professions/sonography/sonography-bs/>)

## **SONO 210 Clinical Practice I** **4 Credit hours**

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures.

**Grade Mode:** Normal Grading Mode

## **SONO 212 Abdominal Sonography I** **4 Credit hours**

This course covers basic abdominal sonographic positioning and scanning protocols, as it relates to abnormal anatomy, anatomical variants, physiology to include the retroperitoneum, associated abdominal vasculature identified.

**Grade Mode:** Normal Grading Mode

## **SONO 213 Ultrasound Physics I** **3 Credit hours**

The focus of this course is to educate students about the physics of sound waves and their interaction with tissue enabling the display of diagnostic imaging.

**Grade Mode:** Normal Grading Mode

## **SONO 214 Intro to Sonography** **3 Credit hours**

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures.

**Grade Mode:** Normal Grading Mode

## **SONO 216 Abdominal Sonography II** **3 Credit hours**

This course covers basic abdominal sonographic pathology positioning and scanning protocols, as it relates to abnormal anatomy, anatomical variants, physiology to include the retroperitoneum, associated abdominal vasculature identified

**Pre-req:** SONO 212 with a minimum grade of D.

**Grade Mode:** Normal Grading Mode

## **SONO 217 Ultrasound Physics II** **3 Credit hours**

The focus of this course is to educate students about the physics of sound waves and their interaction with tissue enabling the display of diagnostic imaging.

**Co-req:** SONO 213

**Grade Mode:** Normal Grading Mode

## **SONO 220 Clinical Practice II** **4 Credit hours**

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures.

**Pre-req:** SONO 210 with a minimum grade of D.

**Grade Mode:** Normal Grading Mode

## **SONO 310 Clinical Practice III** **4 Credit hours**

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures.

**Pre-req:** SONO 210 with a minimum grade of D and SONO 220 with a minimum grade of D.

**Grade Mode:** Normal Grading Mode

## **SONO 315 Small Parts Sonography** **3 Credit hours**

This course covers anatomy, positioning and scanning protocol of the superficial structures (thyroid, scrotum, breast), neonatal brain, neonatal hip, neonatal spine, pediatric kidneys, pediatric abdomen, musculoskeletal system.

**Pre-req:** SONO 312 with a minimum grade of D and SONO 316 with a minimum grade of D.

**Grade Mode:** Normal Grading Mode

## **SONO 318 Vascular Sonography I** **4 Credit hours**

Discussion of vascular disease, duplex examinations with comparison to arteriography, as it pertains to venous and visceral vascular examinations.

**Grade Mode:** Normal Grading Mode

## **SONO 320 Clinical Practice IV** **4 Credit hours**

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures.

**Pre-req:** SONO 210 with a minimum grade of D and SONO 220 with a minimum grade of D and SONO 310 with a minimum grade of D.

**Grade Mode:** Normal Grading Mode

## **SONO 410 Clinical Practice V** **4 Credit hours**

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures.

**Pre-req:** SONO 210 with a minimum grade of D and SONO 220 with a minimum grade of D and SONO 310 with a minimum grade of D and SONO 320 with a minimum grade of D.

**Grade Mode:** Normal Grading Mode

## **SONO 416 Obstetrical Sonography I** **4 Credit hours**

This course covers basic obstetrical sonographic positioning and scanning protocols, as it relates to normal anatomy of the fetus.

**Pre-req:** SONO 212 with a minimum grade of D.

**Grade Mode:** Normal Grading Mode

## **SONO 417 Gynecological Sonography I** **3 Credit hours**

This course presents a study of anatomy and physiology of the nongravid and first trimester pelvis.

**Grade Mode:** Normal Grading Mode

## **SONO 418 Registry Review I** **1 Credit hour**

Designed to prepare the sonography student for their first specialty exam through the ARDMS. \*Student's responsibility to let instructors know which review they wish to take...only one per semester.

**Grade Mode:** Normal Grading Mode

## **SONO 420 Clinical Practice VI** **4 Credit hours**

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures.

**Pre-req:** SONO 410 (may be taken concurrently) with a minimum grade of D.

**Concurrent PR:** SONO 410

**Grade Mode:** Normal Grading Mode

**SONO 421 Gynecological Sonography II 2 Credit hours**

This course covers basic sonographic positioning and scanning protocols, as it relates to abnormal anatomy, anatomical variants, and physiology to include a study of pathology of the nongravid and first trimester pelvis.

**Pre-req:** SONO 417 with a minimum grade of D.

**Grade Mode:** Normal Grading Mode

**SONO 422 Obstetrical Sonography II 3 Credit hours**

This course focuses on sonographic techniques in high-risk pregnancies and fetal abnormalities.

**Pre-req:** SONO 416 with a minimum grade of D.

**Grade Mode:** Normal Grading Mode

**SONO 423 Adult Echocardiography I 4 Credit hours**

This course covers basic adult heart sonographic positioning and scanning protocols, as it relates to normal anatomy, anatomical variants, physiology of the adult heart.

**Grade Mode:** Normal Grading Mode

**SONO 424 Vascular Sonography II 3 Credit hours**

Discussion of vascular pathology and the use of plethysmography techniques in sonography.

**Pre-req:** SONO 318 with a minimum grade of D.

**Grade Mode:** Normal Grading Mode

**SONO 425 Adult Echocardiography II 4 Credit hours**

This course covers basic adult heart sonographic positioning and scanning protocols related to normal anatomy, pathology, anatomical variants, and physiology of the adult heart.

**Pre-req:** SONO 423 (may be taken concurrently) with a minimum grade of D.

**Concurrent PR:** SONO 423

**Grade Mode:** Normal Grading Mode

**SONO 433 Point-of-Care Ultrasound 3 Credit hours**

This course will introduce basic principles of point of care ultrasound for students entering into the field of sonography and emergency medicine.

**Grade Mode:** Normal Grading Mode

**SONO 436 Registry Review II 1 Credit hour**

This course is designed to prepare the sonography student for the specialty exam through the ARDMS.

**Grade Mode:** Normal Grading Mode

**SONO 438 Fetal Echocardiography 3 Credit hours**

This course focuses on sonographic techniques in high-risk pregnancies and fetal heart abnormalities.

**Pre-req:** SONO 416 with a minimum grade of D.

**Grade Mode:** Normal Grading Mode