

# DIAGNOSTIC MEDICAL SONOGRAPHY (SONO)

## SONO 111, ORIENTATION TO DIAGNOSTIC MEDICAL SONOGRAPHY 1 (1)

Topics to include the history and development of the Diagnostic medical Sonography profession, sonography organizations, professional protocol and patient interaction, professional ethics and legal issues, repetitive stress injury prevention, sonographic terminology, image orientation, scanning techniques, concepts of ultrasound physics and instrumentation, and a review of basic patient care techniques used in sonography.

**General Education:** IN1, IN2, IN3, IN4

**Course Entry Requirement(s):** Prerequisite: Admission into the Diagnostic Medical Sonography program and ALHN 107

**Typically Offered:** Fall Semester

## SONO 122, IMAGING MODALITIES 1 (1)

Introduction to the various imaging modalities. Basic function, advantages and disadvantages of the various modalities. Identification of general anatomy, image orientation, and common pathologies in each modality with comparisons applied to sonography will also be discussed. Prerequisite: Admission into the Diagnostic Medical Sonography program. Corequisite: SONO 131 (not REQUIRED of students with radiography background.)

**General Education:** IN1, IN5

**Course Entry Requirement(s):** Prerequisite: Admission into the diagnostic medical sonography program. SONO 131 (not required for students with a radiography background.)

**Typically Offered:** Spring Semester

## SONO 131, INTRODUCTION TO DIAGNOSTIC MEDICAL SONOGRAPHY 7 (19)

Detailed study of normal anatomy, physiology, sonographic appearances, and scanning techniques of normal and common pathologic conditions of the abdominal vasculature, liver, gallbladder, pancreas, kidneys, female pelvis, early and advanced pregnancy and superficial structures. Clinical and college laboratory REQUIRED. (A special fee will be assessed.) Prerequisite: Admission into the Diagnostic Medical Sonography program. Corequisites: SONO 111, SONO 122. Concurrent: BIOG 122, BIOG 123.

**General Education:** IN1, IN2, IN3, IN4

**Course Entry Requirement(s):** Prerequisite: Admission into the diagnostic medical sonography program and SONO 111; Corequisite: SONO 221; Concurrent: BIOG 122 and BIOG 123

**Typically Offered:** Spring Semester

## SONO 215, DIAGNOSTIC MEDICAL SONOGRAPHY I 7 (23)

Detailed study of the abdomen and small parts, discussing pathologic conditions and their sonographic appearances. Clinical and college laboratory required. (A special fee will be assessed.)

**General Education:** IN1, IN2, IN3, IN4, IN5

**Course Entry Requirement(s):** Prerequisite: SONO 221 and SONO 131; Corequisite: SONO 122

**Typically Offered:** Summer Semester

## SONO 221, ULTRASOUND PHYSICS AND INSTRUMENTATION I 2 (2)

This course is designed to provide the student in-depth details of the various modes used in diagnostic sonography and examples of each, physical principles of diagnostic ultrasound as it interacts with tissue, and the construction and function of single- element and multi-element transducers. This course requires prior knowledge of scientific formulas and metric conversions.

**General Education:** IN1

**Course Entry Requirement(s):** Prerequisite: SONO 111 and PHYC 115; Corequisite: SONO 131

**Typically Offered:** Spring Semester

## SONO 222, ULTRASOUND PHYSICS AND INSTRUMENT II 2 (2)

Continuation of Ultrasound Physics and Instrumentation, including Doppler physics, hemodynamics, image processing recording devices, artifacts, biological effects, and quality control.

**General Education:** IN1

**Course Entry Requirement(s):** Prerequisite: SONO 215 and SONO 221; Corequisite SONO 222

**Typically Offered:** Fall Semester

## SONO 223, DIAGNOSTIC MEDICAL SONOGRAPHY II 8 (35)

The identification of various gynecologic disease processes, fetal development and various obstetrical, genetic pathologies based on sonographic appearance and clinical history. Clinical and college laboratory required. (A special fee will be assessed.)

**General Education:** IN1, IN2, IN3, IN4, IN5

**Course Entry Requirement(s):** Prerequisite: SONO 215 and SONO 221; Corequisite SONO 222

**Typically Offered:** Fall Semester

## SONO 224, ADVANCED DIAGNOSTIC MEDICAL SONOGRAPHY STUDIES 6 (34)

Doppler studies of the extracranial, transcranial, peripheral vascular arterial and venous, abdomen and fetus will be emphasized. Sonography of the neonatal head, spinal cord, and musculoskeletal, as well as other current advanced studies will be discussed. Clinical and college laboratory required. (A special fee will be assessed.)

**General Education:** IN1, IN2, IN3, IN4, IN5

**Course Entry Requirement(s):** Prerequisite: SONO 222 and SONO 223; Corequisite SONO 229

**Typically Offered:** Spring Semester

## SONO 229, PROFESSIONAL ISSUES IN DIAGNOSTIC MEDICAL SONOGRAPHY 1 (1)

Professional issues in diagnostic medical sonography to include administrative planning, resume writing, job interviewing skills, registry review, continuing education and career advancement.

**General Education:** IN1, IN2, IN4

**Course Entry Requirement(s):** Prerequisite: SONO 222 and SONO 223; Corequisite SONO 224

**Typically Offered:** Spring Semester