

# SON: SONOGRAPHY

## Courses

	Credit(s)	Contact	Lab
SON 1000. INTRODUCTION TO MEDICAL SONOGRAPHY.	3	3	0
INTRODUCTION TO MEDICAL SONOGRAPHY Prerequisite: Acceptance into A.S. Diagnostic Medical Sonography Program. Corequisite: SON 1000L and SON 1002C An introduction to the profession of sonography and the role of the sonographer. Emphasis on basic ultrasound procedures, medical terminology, ethical/aspects, musculoskeletal disorders, professional issues relating to registry, accreditation, professional organizations, and history of the profession. (Special Fee: \$44.00).			
SON 1000L. SONOGRAPHY INSTRUCTIONAL LAB I.	1	0	4
SONOGRAPHY INSTRUCTIONAL LAB I Prerequisite: Acceptance into the A.S. Diagnostic Medical Sonography program. Corequisite: SON 1000 and SON 1002C This is a supervised sonography lab with one-on-one, hands-on instruction of sonographic procedures with emphasis on patient care, sonographic terminology, basic knobology, scanning planes, and image quality. This course includes learning activities designed to ensure competence in the basic use of the ultrasound equipment and basic exam protocols focusing on the upper abdomen. (Special Fee: \$44.00).			
SON 1001. ABDOMINAL SONOGRAPHY I.	3	3	0
ABDOMINAL SONOGRAPHY I Prerequisite: Minimum grade of C in SON 1000 Corequisite: SON 1804L , RTE 2762 This course is an in-depth study in the sonographic imaging of the abdominal viscera and pathological processes that affect this area of the body. This course also includes sonographic terminology and the correlation of the ultrasound findings with clinical laboratory test to pathological processes. (Special Fee: \$4.00).			
SON 1001L. SONOGRAPHY INSTRUCTIONAL LAB II.	1	0	4
SONOGRAPHY INSTRUCTIONAL LAB II Prerequisite: SON 1000, SON 1000L, SON 1002C Corequisite: SON 1001, SON 1804L, RTE 2762 This is a supervised sonography lab with one-on-one, hands-on instruction of sonographic procedures with emphasis on patient care, sonographic terminology, basic knobology, scanning planes, and image quality. This course includes learning activities designed to ensure competence in the basic use of the ultrasound equipment and basic exam protocols focusing on gynecological, thyroid, scrotal, breast and non-cardiac chest exams. (Special Fee: \$4.00).			
SON 1002C. METHODS OF PATIENT CARE.	2	1	3
METHODS OF PATIENT CARE Prerequisite: Acceptance to Sonography A.S. Degree Program Co-requisites: SON 1000 and SON 1000L Content is designed to provide the basic concepts of patient care including consideration for physical, psychological, legal, and ethical needs of the patient and family. Routine and emergency patient care procedures are described, as well as infection control procedures using standard precautions. Introduces basic theories, skills, and techniques of quality patient care. Includes communication, assessment skills, aseptic technique, emergency situations, and AIDS education. Presents theoretical and practical knowledge to make sound clinical judgments and carry out patient care activities. A minimum grade of C is required to pass this course. (Special Fee \$12.00).			

SON 1003L. SONOGRAPHY PRACTICE LAB.	1	0	4
SONOGRAPHY PRACTICE LAB Prerequisite or Corequisite: SON 1000L This course is designed to provide extended hands-on lab opportunities to further enhance basic skills prior to starting the clinical rotation. Multiple credit course. May be repeated for credit for a maximum of four credits, but grade forgiveness cannot be applied. (Special Fee: \$11.00).			
SON 1112. ABDOMINAL SONOGRAPHY II.	3	3	0
ABDOMINAL SONOGRAPHY II Prerequisite: Minimum grade of C in RTE 2762, SON 1001, SON 1001L, and SON 1804L Corequisite: SON 1112L, SON 1614, and SON 1814L This course is a continuation of Abdominal Sonography I. It is an in-depth study in the sonographic imaging of the abdominal viscera and the pathological processes that affect this area of the body. The course also includes correlation of the ultrasound findings with clinical laboratory tests. (Special Fee: \$31.00).			
SON 1112L. SONOGRAPHY INSTRUCTIONAL LAB III.	1	0	4
SONOGRAPHY INSTRUCTIONAL LAB III Prerequisite: Minimum grade of C in SON 1001, SON 1001L Corequisite: SON 1112 This is a supervised Sonography lab with one-on-one, hands-on instruction of sonographic procedures with emphasis on patient care, ultrasound computer equipment orientation, cross-sectional imaging planes and performance of quality exams. This course includes learning activities designed to ensure competence in the basic use of ultrasound equipment and basic exam protocols. Emphasis is on image evaluation and protocols for obstetric scanning. (Special Fee: \$31.00).			
SON 1614. SONOGRAPHIC PHYSICS I.	3	3	0
SONOGRAPHIC PHYSICS I Prerequisites: Minimum grade of C in SON 1001 Corequisites: SON 1112, SON 1814L A study of the properties of diagnostic ultrasound and the effective utilization of them to produce quality scans. This course covers propagation of sound through a medium, transducer construction, different types of scan heads, and the different display modes.			
SON 1804L. CLINICAL SONOGRAPHY I.	2	0	16
CLINICAL SONOGRAPHY I Prerequisites: Minimum grade of C in SON 1000 Corequisites: RTE 2762 and SON 1001 Supervised clinical experience and competency evaluation of professional interaction and performance of routine sonographic procedures with emphasis on patient care, ultrasound computer equipment orientation, cross-sectional imaging planes, and performance of quality exams. This course includes learning activity designed to ensure competence in the basic use of computers. (Special Fee: \$2.00).			
SON 1814L. CLINICAL SONOGRAPHY II.	2	0	16
CLINICAL SONOGRAPHY II Prerequisites: SON 1804L Corequisites: SON 1112 and SON 1614 A continuation of supervised clinical experience and competency evaluation of performance of routine sonographic procedures, usage of computerized ultrasound equipment and professional interaction. Emphasis is placed on critical thinking skills as related to exam performance and patient care in the clinical setting. (Special Fee: \$2.00).			
SON 2061. SEMINAR IN SONOGRAPHY.	3	3	0
SEMINAR IN SONOGRAPHY Prerequisites: SON 2122. Corequisite: SON 2880. This course is a comprehensive review of all aspects of the Sonography curriculum to prepare the students for the Board Exams. Also included in the preparation of employment resumes.			

SON 2121. OB/GYN SONOGRAPHY I.	3	3	0
OB/GYN SONOGRAPHY I Prerequisites: SON 1112L Corequisites: SON 2150, SON 2618, SON 2824L This course includes an in-depth study of the female pelvis with emphasis on the sonographic appearance of its structures and the numerous pathological processes that may affect it. The course will continue with early pregnancy and its complications.			
SON 2122. OB/GYN SONOGRAPHY II.	3	3	0
OB/GYN SONOGRAPHY II Prerequisite: SON 2121 Corequisites: SON 2619 and SON 2834L This course is a continuation of SON 2121 which includes the sonographic evaluation of pregnancy and related complications. Emphasis is placed on the detection of fetal anomalies, pathology, and the scan planes necessary for appropriate imaging.			
SON 2150. NEUROSONOLOGY AND SUPERFICIAL STRUCTURES.	3	3	0
NEUROSONOLOGY AND SUPERFICIAL STRUCTURES Prerequisite: SON 1112L Corequisites: SON 2121, SON 2618 and SON 2824L This course is a study of the sonographic imaging of the premature infant brain and the pathological processes that affect it. Also included are the sonographic evaluations of the prostate, scrotum, thyroid gland, and breast.			
SON 2618. SONOGRAPHIC PHYSICS II.	3	3	0
SONOGRAPHIC PHYSICS II Prerequisite: SON 1614. Corequisites: SON 2121, SON 2150 and SON 2824L. This course is a continuation in the study of the properties of diagnostic ultrasound and their role in the production of quality ultrasound images of patients' internal organs. Also covers hemodynamics, the basic mathematical principals and instrumentation of Doppler/color flow imaging, and components of the ultrasound system.			
SON 2619. SONOGRAPHIC PHYSICS III.	2	2	0
SONOGRAPHIC PHYSICS III Prerequisite: SON 2618 Corequisites: SON 2122 and SON 2834L This course is a continuation in the study of the properties of diagnostic ultrasound and their role in the production of quality images, which includes resolution and attenuation artifacts, routine maintenance of the ultrasound equipment, and the biologic effects of ultrasound on body tissues. Also included is a review for the Acoustical Physics and Instrumentation Registry Exam.			
SON 2824L. CLINICAL SONOGRAPHY III.	3	0	24
CLINICAL SONOGRAPHY III Prerequisites: SON 1814L Corequisites: SON 2121, SON 2150, and SON 2618 A continuation of supervised clinical experience and competency evaluation of performance of routine sonographic procedures, computerized ultrasound machine skills and professional interaction. Emphasis is placed on critical thinking skills as related to exam performance and patient care in the clinical setting. Students will be required to research selected case studies and prepare oral presentations to be presented to the radiologist. (Special Fee: \$23.00).			
SON 2834L. CLINICAL SONOGRAPHY IV.	3	0	24
CLINICAL SONOGRAPHY IV Prerequisites: SON 2824L Corequisites: SON 2122 and SON 2619 This course is a continuation of supervised clinical experience and competency evaluation of performance of routine sonographic procedures, computerized ultrasound machine skills and professional interaction. Emphasis is placed on critical thinking skills as related to exam performance and patient care in the clinical setting. Students will be required to research selected case studies and prepare oral presentations to be presented to the radiologist. (Special Fee: \$2.00).			

SON 2882L. MEDICAL SONOGRAPHY CLINICAL PRACTICUM.	2	0	32
MEDICAL SONOGRAPHY CLINICAL PRACTICUM Prerequisite: SON 2834L Corequisite: SON 2061 This is the final course in the clinical education sequence. Students will perform routine procedures with minimal supervision. Emphasis is placed on critical thinking skills as related to exam performance and patient care in the clinical setting. Students will be required to research selected case studies and prepare oral presentations to be presented to the radiologist.			
SON 2930. SELECTED TOPICS IN SONOGRAPHY.	1-3	variable	
SELECTED TOPICS IN SONOGRAPHY Prerequisite: Department approval Selected topics in sonography based on the needs and areas of interest of the class and professor. May include laboratory work as part of the class. Multiple credit course. May be repeated for up to 3 hours of credit, but grade forgiveness cannot be applied.			
SON 2942. INTERNSHIP IN SONOGRAPHY.	1-4	variable	
INTERNSHIP IN SONOGRAPHY Prerequisite: Satisfactory completion of all mandated courses in Reading, Mathematics, English, and English for Academic Purposes; a minimum 2.0 institutional or overall GPA; and 12 credits. The Program Director/Program Chair/Program Coordinator or Internship Placement Office has the discretion to provide override approval as it relates to the waiver of required program/discipline-related courses. This course is a planned work- based experience that provides students with an opportunity to fine- tune skill sets learned in course work and enhance workplace skills through supervised practical experiences related to their career objectives. Each earned credit of internship requires a minimum of 80 clock hours of work. Multiple credit course. May be repeated for credit, but grade forgiveness cannot be applies. (Internship Fee: \$10.00).			
SON 3172C. INTRODUCTION TO VASCULAR SONOGRAPHY.	3	2	4
INTRODUCTION TO VASCULAR SONOGRAPHY Prerequisite: Admission into the BS in Radiologic & Imaging Sciences Program Vascular Ultrasound Concentration or ATC in Vascular Sonography. This course will present an introduction to vascular sonography. It will provide an in-depth exploration of the type of exams performed for the diagnosis of vascular disease. The course is designed to introduce the students to the anatomy, physiology, and scanning protocols for cerebral, peripheral (venous and arterial), and visceral vascular exams. Students will apply sonographic techniques to evaluate the vascular system. Students will be introduced to patient care issues specific to vascular sonography.			
SON 3173. VASCULAR SONOGRAPHY II.	3	3	0
VASCULAR SONOGRAPHY II Prerequisite: Minimum grade of C in SON 3172C Introduction to Vascular Sonography Corequisite: SON 3806L This course will provide in-depth exploration of the cerebrovascular and peripheral venous vascular sonography. It will explore pathophysiology, integration of data, report generation, and vascular sonography's role in the treatment of vascular disease. Minimum grade of C required if used to satisfy Radiologic & Imaging Sciences B.S. degree requirement.			
SON 3806L. VASCULAR SONOGRAPHY PRACTICUM I.	2	0	16
VASCULAR SONOGRAPHY PRACTICUM I Prerequisite: Minimum grade of C in SON 3172C Introduction to Vascular Sonography. This course will provide an introduction to vascular sonographic techniques in the clinical setting including observation, pre- and post-procedural activities, and supervised performance of basic vascular sonographic examination. Minimum grade of C required if used to satisfy Radiologic & Imaging Science B.S. degree requirement. Contact hours 16 hours per week; 240 hours clinical practice per semester.			

SON 4174. VASCULAR SONOGRAPHY III. 2 2 0

VASCULAR SONOGRAPHY III Prerequisite: Minimum grade of C in SON 3173 and SON 3806L Corequisite: SON 4816L This course will provide in-depth exploration of peripheral arterial and visceral vascular Sonography. It will explore pathophysiology, integration of data, report generation, and vascular sonographer's role in the treatment of vascular disease. Minimum grade of C required if used to satisfy Radiologic & Imaging Sciences B.S. degree requirement.

SON 4816L. VASCULAR SONOGRAPHY PRACTICUM II. 2 0 16

VASCULAR SONOGRAPHY PRACTICUM II Prerequisite: Minimum grade of C in SON 3173 and SON 3806L. Corequisite: SON 4174 This course will provide continued exposure to the vascular sonographic techniques in the clinical setting including observation, pre- and post-procedural activities, and supervised performance of basic vascular sonographic examination. Minimum grade of C required if used to satisfy Radiologic & Imaging Science B.S. degree requirement. Contact hours 16 hours per week; 240 hours clinical practice per semester.