ADI:256 Cardiac Sonography I 4.0 cr.
This course provides an introductory exposure to the field of Cardiac Sonography and the role of the echocardiographer in a healthcare setting. The student will be introduced to relevant terminology as well as sonographer safety issues. The study of embryology, anatomy, and function of the heart and peripheral vascular system will play a vital role in understanding the cardiovascular system and how it relates to cardiac function. Patient assessment, correlation of pertinent laboratory and other medical procedures will be discussed. Students will learn basic imaging techniques and develop a standard protocol for examination of the adult heart. Normal sonographic appearances and anatomy recognition will be emphasized. (79.2 Lec. Hrs.)

ADI:262 Sectional Anatomy for Diagnostic Imaging 3.0 cr.
This course covers the fundamentals of sectional anatomy for the commonly imaged planes of the human body. Units of study include: Cranium and Facial Bones, Brain, Neelk, Spine, Thorax, Abdomen, Pelvis, Upper Extremity, and Lower Extremity. Line drawings, Computed Tomography (CT) images, Magnetic Resonance (MR) images, and ultrasound pictures are used to illustrate body parts in the coronal, sagittal, and/or axial planes. (59.4 Lec. Hrs.)

ADI:266 Cardiac Sonography II 4.0 cr.
As a continuation of ADI:256, this course introduces the student to cardiovascular disease processes and pathophysiology. Risk factors, signs and symptoms, as well as medical, surgical, and interventional treatment options will be discussed. The appearance of pathology will be correlated with changes seen on sonographic images of the cardiovascular system. Spectral and color Doppler techniques used in evaluation of the heart with respect to pathology and diagnosis will be presented. (79.2 Lec. Hrs.)

ADI:276 Cardiac Sonography III 4.0 cr.
As a continuation of ADI:266, this course continues the study of cardiovascular disease processes in the adult patient. Advanced imaging techniques and new advances in the field will be explored. Students will also be introduced to professional governing agencies and explore opportunities for professional growth and development. (79.2 Lec. Hrs.)

ADI:277 Cardiac Imaging Interpretation & Critique 2.0 cr.
This course provides students the opportunity to further study concepts essential to quality patient care and sonographic exam performance. A wide variety of cardiac case studies will be presented and critiqued with emphasis on identification of normal anatomy, recognition of pathologic processes, and technical exam quality. Pathology-specific clinical history and physical assessment, imaging protocols and formulation of a preliminary exam interpretation will be discussed. (39.6 Lec. Hrs.)

ADI:286 Cardiac Sonography IV 4.0 cr.
As a continuation of ADI:277, this course emphasizes the clinical applications of cardiac sonography pertaining to basic fetal and pediatric examinations and the diagnosis of congenital heart disease. Students will investigate various correlative modalities used to examine the heart including magnetic resonance imaging, nuclear medicine, computed tomography and cardiac catheterization. Review sessions in preparation for certification examinations will be provided. (79.2 Lec. Hrs.)

ADI:291 OB/GYN Sonography 6.0 cr.
This course introduces students to the sonographic examination of the non-gravid and gravid uterus. In gynecologic sonography students will assemble a comprehensive knowledge of anatomy, physiology, pathophysiology, and the sonographic appearance of the embryologic, pre-menarchal, menarchal, and post-menopausal female reproductive system. Obstetrical imaging focuses on fetal development and sonographic appearances of fetal and extrafetal anatomy throughout the gestational period. This course emphasizes an understanding of fertilization process, clinical indications for obstetrical sonography and the sonographic appearances of the normal and abnormal gravid uterus specific to each trimester of pregnancy. (99.0 Lec. Hrs.)

ADI:307 OB/GYN Sonography 2.0 cr.
This course provides students the opportunity to further study concepts essential to quality patient care and sonographic exam performance. A wide variety of case studies will be presented and critiqued with emphasis on identification of normal anatomy, recognition of pathologic processes, and technical exam quality. Pathology-specific clinical history and physical assessment, imaging protocols and formulation of a preliminary exam interpretation will be discussed. (39.6 Lec. Hrs.)

ADI:321 Abdominal Sonography I 5.0 cr.
This course introduces students to basic sonographic terminology, imaging planes and techniques as well as sonographer safety issues. Normal anatomy and physiology of the upper abdominal organs, anatomical variations and pathologies will be studied with respect to their sonographic appearances. Emphasis is also placed on the acquisition of pertinent clinical history and physical findings and the evaluation of laboratory and related imaging reports. (99.0 Lec. Hrs.)

ADI:326 Abdominal Sonography II 4.0 cr.
As a continuation of ADI:321, this course covers anatomy and physiology and common pathologies of select abdominal organs as well as various superficial structures. Scanning protocols and normal versus abnormal sonographic findings associated with each procedure are studied. (79.2 Lec. Hrs.)

ADI:327 Abdominal Sonography III 4.0 cr.
As a continuation of ADI:326, this course continues the study of the abdomen and its surrounding structures. Advanced imaging techniques and new advances in the field will be explored. Students will also be introduced to professional governing agencies and explore opportunities for professional growth and development. (79.2 Lec. Hrs.)

ADI:330 Sonography Interpretation & Critique 2.0 cr.
This course provides students the opportunity to further study concepts essential to quality patient care and sonographic exam performance. A wide variety of case studies will be presented and critiqued with emphasis on identification of normal anatomy, recognition of pathologic processes, and technical exam quality. Pathology-specific clinical history and physical assessment, imaging protocols and formulation of a preliminary exam interpretation will be discussed. (39.6 Lec. Hrs.)

ADI:349 Vascular Technology 4.0 cr.
This course will introduce students to basic vascular anatomy, hemodynamics and the use of sonography in evaluation of the vascular system. Clinical applications with regards to pathophysiology, patient signs and symptoms and findings related to common types of vascular disease will be presented. Emphasis will also be placed on the concepts essential to the performance and interpretation of vascular exams. (99.0 Lec. Hrs.)

ADI:357 OB/GYN Sonography 6.0 cr.
This course provides students the opportunity to further study concepts essential to quality patient care and sonographic exam performance. A wide variety of case studies will be presented and critiqued with emphasis on identification of normal anatomy, recognition of pathologic processes, and technical exam quality. Pathology-specific clinical history and physical assessment, imaging protocols and formulation of a preliminary exam interpretation will be discussed. (99.0 Lec. Hrs.)