In private practice dental offices (both general and specialty practices), government clinics and public health facilities, the students will continue demonstrating the principles of chairside assisting, dental and laboratory procedures, and business office procedures. Scheduled clinical seminars will provide an opportunity to review and discuss procedures and clinical experiences.

**Diagnostic Medical Sonography**

**DMS 201 Introduction to Sonography**
Prerequisite: Acceptance into Sonography Program
Credit Hours: 2
This course designed to introduce the student to the basic responsibilities of a diagnostic medical sonographer. The course will include medical terminology and abbreviations, ergonomics, bioeffects, and knobology used in diagnostic ultrasound. Introduction to Sonography will build upon the ethics and law curriculum from your radiology program and apply it to the ultrasound setting. Patient confidentiality and rights will be explained along with the professional codes of conduct for a diagnostic medical sonographer.

**DMS 205 Sonography Sectional Anatomy & Abdominal Pathology I**
Prerequisite: Acceptance into Sonography Program
Credit Hours: 4
This course will serve as an introduction to the study of diseases of the abdomen as related to the normal and abnormal appearance on a sonogram. This will include understanding of the physiology, pathology, and pathophysiology of the abdominal structures, including but not limited to thyroid, breast, prostate, scrotum, urinary tract, small parts, non-cardiac chest, and MSK imaging. Doppler applications will be applied to all structures covered in this course. The normal vs. abnormal laboratory values will be demonstrated.

**DMS 206 OB/GYN for Sonography I**
Prerequisite: DMS 205 Sonography Sectional Anatomy & Pathology I
Credit Hours: 3
This course will begin with the normal anatomy of the female abdominopelvic wall/floor (MSK), cavities, and organs. A description of the physiology of the female pelvic organs will also be included as well as an in depth study of the female menstrual/ovarian cycle. This course will also include an introduction to the normal anatomy of the first, second, and third trimester fetus, as well as normal measurements. Infertility methods and how they are utilized will be covered, as well as how they affect the female pelvic system. Doppler application will be applied to all areas covered in this course. The normal vs. abnormal laboratory values will be demonstrated. The normal placenta and Amniotic Fluid values will also be a course of study. Study on Transabdominal as well as Transvaginal scanning and application will be covered. Lastly, this course will discuss the pitfalls, artifacts, and normal variants that occur with pelvic/obstetrical ultrasound.

**DMS 207 OB/GYN for Sonography II**
Prerequisite: Introduction to OB/GYN Anatomy, Pathology, and Physiology
Credit Hours: 3
This course is a continuation of the OB/GYN for Sonography I course. In this course we will build further upon the foundation we have already created. Included will be neoplastic, infectious, congenital, and metabolic immunologic pathology/anomalies of the female pelvis, first, second, and third trimesters, placenta and umbilical cord. This course will also include discussion about normal vs. abnormal amniotic fluid levels and the correlation with pathology/anomalies. Also discussed in this course is fetal therapy for anomalies. Doppler application will be applied to all areas. Protocol and procedures of OB scanning will be covered in depth.

**DMS 209 Introduction to OB/GYN and Vascular Sonography Lab**
Prerequisite: Acceptance into Sonography Program
Credit Hours: 2
This course is an introduction to vasculature, OB/GYN anatomy, and different Doppler waveforms within the specific structures. The student will learn different approaches and techniques to vascular and OB/GYN ultrasonography, to include an introduction to the normal anatomy of the first, second, and third trimester fetus. Doppler application will be applied to all areas covered in this course. This course will introduce the student to Doppler imaging of the abdomen, extremities, intracranial vessels, and Ankle brachial indexes, Plethysmography, and OB/GYN.

*Refer to the Placement Testing Procedure 3.22, page 24  ** Refer to Course Transfer, page 18
DMS 211 Sonography Physics & Instrumentation
Prerequisite: Acceptance into Sonography Program
Credit Hours: 3
This course will provide a detailed study of the principles of the production and propagation of sound waves as applied to diagnostic medical Sonography. Included will be acoustic physics and Doppler ultrasound principles. Ultrasound instrumentation and image optimization will be foundational objectives. This course will prepare competent entry-level general sonographers.

DMS 213 OB/GYN Sonography Lab
Prerequisite: Introduction to OB/GYN and Vascular Sonography
Credit Hours: 2
This course is a continuation of the Introduction to OB/GYN Sonography Lab course. In this course we will build upon the foundation we have already created. Included will be scanning methods of neoplastic, infectious, congenital, and metabolic immunologic pathology/anomalies of the female pelvis, first, second, and third trimesters, placenta and umbilical cord. This course will also implement the scanning of normal vs. abnormal amniotic fluid levels and the correlation with pathology/anomalies. Also discussed in this course is fetal therapy for anomalies. Doppler application will be applied to all areas. Protocol and procedures of OB scanning will be covered in depth as well as practiced. The scanning application of Neonatal Brain and Spine will be included.

DMS 214 Introduction to Echocardiography
Reading Placement Test Level: None
Prerequisite: Sonography background.
Credit Hours: 3
This course will serve as an introduction to the study of basic heart anatomy and physiology. The course will include different types of pathology, valve disease, transthoracic, parasternal, Apical, Subcostal, Transesophageal Suprasternal windows, stress testing, basic embryology and fetal circulation, congenital anomalies, and 3D/4D echocardiography. This course will include video links, forums, quizzes, and testing.

DMS 218 General & Abdominal Sonography Lab
Prerequisite: Acceptance into Sonography Program
Credit Hours: 3
This course will present beginning scanning procedures, and protocols for the Sonography procedures of the abdomen and small anatomical parts. Sonographic technique and normal and abnormal appearance of the anatomy will also be covered.

DMS 220 General Sonography Clinical Training I
Prerequisite: DMS 205 Sonography Sectional Anatomy & Abdominal Pathology
Credit Hours: 2
This course is an introductive course to Sonography scanning, procedures, and protocols. The student will begin with observation and progress to assisting with and performing procedures. This course will cover general Sonography procedures of the abdomen, thyroid, scrotum, breast, MSK, non-cardiac chest, and major vasculature structures of the abdomen, and small parts. The student will attend a clinical rotation for 24 hours per week. Hours and days are subject to change.

DMS 221 Sonography Clinical Training II
Prerequisite: Acceptance into Sonography Program
Credit Hours: 6
This course is a continuation to the Introductory Clinical Course. The student will still be observing some procedures and progress to assisting with and performing procedures. This course will cover general Sonography procedures of the abdomen, thyroid, scrotum, breast, MSK, non-cardiac chest, and major vasculature structures of the abdomen, and small parts. The student will attend 24 hours of clinical per week. Hours and days are subject to change.

DMS 222 Sonography Clinical Training III
Prerequisite: Vascular Sonography Clinical II
Credit Hours: 4
This course is a continuation of Clinical Course 221 (Clinical Training II). The student is fairly confident with abdominal and small parts procedures at this point in their clinical rotation. The student should perform the required unassisted competencies this rotation as well as the required 2nd set of assisted competencies. This course will cover general Sonography procedures of the abdo-

*Refer to the Placement Testing Procedure 3.22, page 24  ** Refer to Course Transfer, page 18
men, thyroid, scrotum, breast, MSK, non-cardiac chest, major vasculature structures of the abdomen, small parts, OB/Gynecology, and vascular of the upper and lower extremities. The student will attend 24 hours of clinical per week. Hours and days are subject to change.

DMS 223 Sonography Clinical Training IV  
Prerequisite: Sonography Clinical III  
Credit Hours: 6  
This course is a continuation of Clinical Course 222 (Clinical Training III). The student is confident or fairly with abdominal, small parts, OB/Gynecology, and upper and lower extremity vascular procedures at this point in their clinical rotation. The student should perform the required unassisted competencies this rotation, once the student has completed these competencies they should be able to perform all examinations with ease and confidence. This course will cover general Sonography procedures of the abdomen, thyroid, scrotum, breast, MSK, non-cardiac chest, major vasculature structures of the abdomen, small parts, OB/Gynecology, and vascular of the upper and lower extremities. The student will attend 24 hours of clinical per week. Hours and days are subject to change.

DMS 225 Vascular Sonography Lab  
Prerequisite: DMS 230 Introduction to Vascular Sonography  
Credit Hours: 2  
This laboratory course will increase your anatomy and pathology knowledge and Doppler skills of the cerebrovascular, extremities, abdominal vasculature transcranial, plethysmography, segmental, ABI’s, aortic aneurysms, IVC imaging, venous Doppler evaluation with compression and augmentation, Allen test, Laser vein ablation, radio frequency, invasive vs. noninvasive testing, carotid imaging and evaluating, Raynaud’s testing using hands on technique.

DMS 230 Vascular Sonography I  
Prerequisite: Acceptance into Sonography Program  
Credit Hours: 2  
This course is an introduction to the vasculature anatomy, location, and different waveforms. The student will learn different approaches and techniques to vascular ultrasonography. This course will introduce the student to Doppler imaging of the abdomen, extremities, intracranial vessels, and Ankle brachial indexes, and Plethysmography.

DMS 231 Vascular Sonography II  
Prerequisite: Introduction to Vascular Sonography  
Credit Hours: 4  
This course will increase your knowledge and Doppler skills of the cerebrovascular, extremities, abdominal vasculature, transcranial, plethysmography, segmental, ABI’s, aortic aneurysms, IVC imaging, venous Doppler evaluation with compression and augmentation, Allen test, Laser vein ablation, radio frequency, invasive vs. noninvasive testing, carotid imaging and evaluation, Raynaud’s testing, and all vascular Sonography procedures. Lab scanning and exam competencies will be performed in the lab setting.

DMS 234 Sonography and Physics Registry Review  
Prerequisite: DMS 211 Sonography Physics & Instrumentation  
Credit Hours 2  
This course will provide a detailed review of principles of the production and propagation of sound waves as applied to diagnostic medical Sonography. Included will be acoustic physics, Doppler shift, acoustic parameters, waveform interference and Doppler ultrasound principles. This course will prepare the student for the SPI physics registry.

DMS 250 Sonography Registry Review  
Prerequisite: DMS 205 Sonography Sectional Anatomy & Pathology I, DMS 207 OB/GYN Sonography Procedures, DMS 231 Vascular Sonography Procedures  
Credit Hours: 6  
This course is broken down into three areas that will review all necessary subject matter of normal vs. diseased anatomy, functions, pathology, physiology, sectional abdominal anatomy, OB/GYN, vascular, and small parts to better prepare students to sit for registry exam.

*Refer to the Placement Testing Procedure 3.22, page 24. ** Refer to Course Transfer, page 18