US101 Fundamentals of Sonography:

- Content is designed to provide an overview of the foundations in sonography and the practitioner’s role in the health care delivery system. Principles, practices and policies of the health care organization(s) will be examined and discussed in addition to the professional responsibilities of the sonographer.
- An introduction to legal terminology, concepts and principles will also be presented. Topics include misconduct, malpractice, legal and professional standards and the ARDMS scope of practice. The importance of proper documentation and informed consent is emphasized.
- Content is designed to provide a fundamental background in ethics. The historical and philosophical basis of ethics, as well as the elements of ethical behavior, will be discussed. The student will examine a variety of ethical issues and dilemmas found in clinical practice.
- An overview of basic sonographic medical terminology, techniques, and equipment will provide the student with a basic understanding of the sonographers’ role.

US102 Pathophysiology

- This course consists of several guided activities to help the student understand the course material. The class will use group discussions, learning projects and/or presentations along with worksheet pages from the workbook.
- This course is designed to give the student the basic understanding of diseases processes and how this affects the human body.
- This course will build a foundation for understanding the role of disease in the body and to further aid in future study of pathologies seen in the coming courses.
GEN101 Abdomen Ultrasound

- This course is a lecture based class with several different guided activities to help the student understand the course material. The class will use group discussions, learning projects and/or presentations along with worksheet pages from the workbook.
- This course is a comprehensive course of the abdomen that will include anatomy, physiology, and pathology of the liver, spleen, kidney, biliary system, and peritoneal spaces.
- Students will become familiar with basic clinical symptoms, lab values, as well as diagnosis of the patient based on the ultrasound findings.
- Students will participate in laboratory demonstration that includes becoming familiar with scanning skills in abdominal structures. The information covered in the course will orient the student for preparation in the clinical setting.

OBGYN101 Obstetrics and Gynecological Ultrasound I

- This course is a lecture based class with several different guided activities to help the student understand the course material. The class will use group discussions, learning projects and/or presentations along with worksheet pages from the workbook.
- This course focuses on the normal gross, relational and sonographic anatomy of the female pelvis. This course also focuses on obstetrical ultrasound in the first trimester.
- Students will become familiar with pathology and disease processes associated with gynecologic disorders. The student will also become familiar with anomalies associated with early obstetrical ultrasound.
- Students will participate in laboratory demonstration that includes becoming familiar with scanning the female pelvis. The information covered in the course will orient the student for preparation in the clinical setting.

GEN102 Small Parts Ultrasound

- This course is a lecture based class with several different guided activities to help the student understand the course material. The class will use group discussions, learning projects and/or presentations along with worksheet pages from the workbook.
- This course is a comprehensive course of the superficial structures/small parts that will include anatomy, physiology, and pathology of the thyroid, scrotum,
breast, abdominal wall, musculoskeletal, non-cardiac chest, and non-vascular extremities.

- Students will become familiar with basic clinical symptoms, lab values, as well as diagnosis of the patient based on the ultrasound findings.
- Students will participate in laboratory demonstration that includes becoming familiar with scanning skills in superficial structures.
- The information covered in the course will orient the student for preparation in the clinical setting.

**VAS 101 Vascular Technology I**

- This course is a lecture based class with several different guided activities to help the student understand the course material. The class will use group discussions, learning projects and/or presentations along with worksheet pages from the workbook.
- Vascular ultrasound is in high demand right now in the clinical world due to Medicare changes. It is important that students get the education they need to become RVT, which will allow a better chance for job placement.
- This course includes instruction in the specialized techniques of noninvasive testing of the human vascular system and the evaluation of vascular pathophysiology.
- Lectures stress the performance and analysis of vascular ultrasound scanning, spectral analysis and the interpretation of scanning and non-scanning modalities for vascular testing.
- The final exam for the semester will include all vascular technology, physiology, pathology and physical principles.
- This course will be in conjunction with a scan lab.
- The lab will consist of learning proper imaging techniques, proper anatomy, and individual protocols for the upper and lower arterial systems venous systems and cerebrovascular exams covered in this course.

**OBGYN201 Obstetrics and Gynecological Ultrasound II**

- This course is a lecture based class with several different guided activities to help the student understand the course material. The class will use group discussions, learning projects and/or presentations along with worksheet pages from the workbook.
- This course focuses on chromosomal anomalies and genetic disorders associated with 1st, 2nd and 3rd trimester obstetrical ultrasound.
Students will become familiar with pathology and disease processes associated with anomalies associated with obstetrical ultrasound.

**VAS201 Vascular Technology II**

- This course is a lecture based class with several different guided activities to help the student understand the course material. The class will use group discussions, learning projects and/or presentations along with worksheet pages from the workbook.
- This course is designed for the student to gain comprehensive knowledge about more complex vascular imaging.
- The lectures will stress the performance of abnormal vascular imaging and procedures. Vascular Hemodynamics will also be explored as they change with abnormal exams.
- The course will be in conjunction with Scan Lab of normal anatomy and procedures so the student can stay engaged in the overall aspect of Vascular Technology.
- This course is presented in a lecture format and will incorporate weekly differentiated instruction that will be planned into the instruction.
- This is a course of instruction in the specialized techniques of noninvasive testing of the human vascular system and the evaluation of vascular pathophysiology. Lectures will stress the performance and analysis of vascular ultrasound scanning, spectral analysis and the interpretation of scanning and non-scanning modalities for vascular testing.
- The final exam for the semester will include *all* vascular technology, physiology, pathology and physical principles.
- This course will be in conjunction with a scan lab.
- The lab will consist of learning proper imaging techniques, proper anatomy, and individual protocols for the upper and lower arterial systems venous systems and cerebrovascular exams covered in this course.

**PHYS101 Ultrasound Physics and Instrumentation**

- This course is a lecture based class with several different guided activities to help the student understand the course material. The class will use group discussions, learning projects and/or presentations along with worksheet pages from the workbook.
- This course is the introduction of ultrasound physics and how images are created by a sound wave.
The student will understand the basic principles associated with operating any sonographic equipment.

This course is comprehensive and is often not understood thoroughly in this quarter.

This course is designed to introduce the theories associated with physics to fully achieve competency.

**CLIN101 Clinical Practice I**

- Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures. Through structured sequential, competency-based assignments in clinical setting, concepts of team practice, patient-centered clinical practice and professional development shall be discussed, examined and evaluated.

- Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of ultrasound imaging and total quality management. Levels of competency and outcome measurements shall ensure the well-being of the patient preparatory to, during and following the sonographic procedure.

- Students will be assessed in completing scanning competencies, number of exams logged, affective evaluations, and clinical site visits. Other criteria is also assessed for clinical experience.

**CLIN201 Clinical Practice II**

- Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures. Through structured sequential, competency-based assignments in clinical setting, concepts of team practice, patient-centered clinical practice and professional development shall be discussed, examined and evaluated.

- Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of ultrasound imaging and total quality management. Levels of competency and outcome measurements shall ensure the well-being of the patient preparatory to, during and following the sonographic procedure.

- Students will be assessed in completing scanning competencies, number of exams logged, affective evaluations, and clinical site visits. Other criteria is also assessed for clinical experience.
**PHYS201 Physics Registry Review**

- This course is a lecture based class with several different guided activities to help the student understand the course material. The class will use group discussions, learning projects and/or presentations along with worksheet pages from the workbook.
- This course is designed to help prepare the student to pass the SPI Boards through the ARDMS.
- The student will understand the basic principles associated with operating any sonographic equipment.
- This course is comprehensive.
- This course is designed to assess the students’ theories associated with physics to fully achieve competency.

**CLIN301 Clinical Practice III**

- Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures. Through structured sequential, competency-based assignments in clinical setting, concepts of team practice, patient-centered clinical practice and professional development shall be discussed, examined and evaluated.
- Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of ultrasound imaging and total quality management. Levels of competency and outcome measurements shall ensure the well-being of the patient preparatory to, during and following the sonographic procedure.
- Students will be assessed in completing scanning competencies, number of exams logged, affective evaluations, and clinical site visits. Other criteria are also assessed for clinical experience.

**GEN201 Advanced Sonographic Imaging**

- This course is a lecture based class with several different guided activities to help the student understand the course material. The class will use group discussions, learning projects or presentations along with worksheet pages from the workbook.
- Students will be exposed to different pathologies within the field of ultrasound.
- The student will gain a better understanding of how diagnoses are made in the field of ultrasound.
The student will be exposed to other imaging modalities that may confirm the diagnosis of these pathologies.
Students will research and present an interesting case study for their final grade.
The course will consist of lectures, research, case study and journal reviews.

**VAS301 Vascular Registry Review**

- This course is a lecture based class with several different guided activities to help the student understand the course material. The class will use group discussions, learning projects and/or presentations along with worksheet pages from the workbook.
- This course is presented in a lecture format and will incorporate weekly differentiated instruction that will be planned into the instruction.
- This is a course of instruction in the specialized techniques of noninvasive testing of the human vascular system and the evaluation of vascular pathophysiology.
- Lectures will stress the performance and analysis of vascular ultrasound scanning, spectral analysis and the interpretation of scanning and non-scanning modalities for vascular testing.
- The final exam for the semester will include *all* vascular technology, physiology, pathology and physical principles.
- This course will be in conjunction with a scan lab.
- The lab will consist of learning proper imaging techniques, proper anatomy, and individual protocols for the upper and lower arterial systems, venous systems and cerebrovascular exams covered in this course.

**CLIN401 Clinical Practice IV**

- Content and clinical practice experiences shall be designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures. Through structured sequential, competency-based assignments in clinical setting, concepts of team practice, patient-centered clinical practice and professional development shall be discussed, examined and evaluated.
- Clinical practice experiences shall be designed to provide patient care and assessment, competent performance of ultrasound imaging and total quality management. Levels of competency and outcome measurements shall ensure the well-being of the patient preparatory to, during and following the sonographic procedure.
Students will be assessed in completing scanning competencies, number of exams logged, affective evaluations, and clinical site visits. Other criteria are also assessed for clinical experience.

**GEN301 General Registry Review Sonography**

- This course is a lecture based class with several different guided activities to help the student understand the course material. The class will use group discussions, learning projects and/or presentations along with worksheet pages from the workbook.
- This course is a comprehensive course of the abdomen that will include anatomy, physiology, and pathology of the: liver, spleen, kidney, biliary system, peritoneal spaces, superficial structures/organs, pelvis, and fetus.
- Students will become familiar with basic clinical symptoms, lab values, as well as diagnosis of the patient based on the ultrasound findings.
- Students will participate in laboratory demonstration that includes becoming familiar with scanning skills in abdominal structures.
- The information covered in the course will orient the student for preparation in the clinical setting.