



### **Course Description**

#### **SON2844 | Clinic 5 | 3.00 credits**

This is the fifth in a series of six (6) clinics in which the student is assigned to a medical facility. The student is afforded hands-on experience in sonography under the supervision of a clinical instructor, sonographer or physician. Prerequisite: SON2834.

### **Course Competencies**

**Competency 1:** The student will demonstrate knowledge of physiology, pathology, and pathophysiology by:

1. Evaluating images of ultrasound exam
2. Analyzing diagnostic data and other pertinent observations for presentations to the interpreting physician
3. Recognize and identify the sonographic appearance of typical anatomic structures associated with each learning concentration
4. Recognize and identify the sonographic appearance of abnormal anatomic structures associated with each learning concentration
5. Analyze diagnostic data and other pertinent observations for presentations to interpreting physicians

**Competency 2:** The student will demonstrate knowledge and understanding of acoustic physics, Doppler ultrasound principles, and ultrasound instrumentation by:

1. Using controls properly
2. Identifying artifacts
3. Applying techniques to optimize images
4. Discussing Doppler formulas
5. Evaluating final Doppler findings

**Competency 3:** The student will demonstrate knowledge and application of ergonomics by:

1. Demonstrating proper body mechanics when scanning a patient
2. Demonstrating proper body mechanics when moving a patient
3. Demonstrating proper body mechanics when moving machines

**Competency 4:** The student will demonstrate the ability to assist in ultrasound studies and demonstrate the basic skills of a sonographer by:

1. Assisting with the ultrasound exam by providing basic images
2. Listing and discussing protocols for each exam
3. Preparing patients for the ultrasound exam
4. Preparing rooms for the ultrasound exam
5. Identifying image storage techniques
6. Demonstrating basic patient care skills
7. Demonstrating attention to patient safety
8. Demonstrate preparation to start an exam and prepare an ultrasound machine and room
9. Demonstrating basic skills for the prevention of infection
10. Locating emergency equipment and supplies

**Competency 5:** The student will demonstrate knowledge and application of image optimization in 2D and Doppler studies by:

1. Evaluating images and applying proper technique
2. Identifying and comparing gain and power
3. Identifying preset/identifying zoom
4. Identifying focus
5. Identifying aliasing

**Competency 6:** The student will identify pathology on ultrasound exams by:

1. Describing pathology using sonographic terms

2. Identifying basic views within the scanning protocol
3. Identifying all structures within each protocol view
4. Discussing average measurements within the protocol
5. Describing abnormal findings
6. Discussing differential diagnosis

**Competency 7:** The student will demonstrate clinic preparedness by:

1. Participating in the daily activities of the sonography department
2. Demonstrating professional and ethical conduct and adherence to rules and regulations of the school and clinical site
3. Communicating with patients, medical staff, and physicians professionally
4. Demonstrating awareness about patient safety

**Learning Outcomes:**

- Communicate effectively using listening, speaking, reading, and writing skills
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Use computer and emerging technologies effectively