

LABETTE COMMUNITY COLLEGE BRIEF SYLLABUS

SPECIAL NOTE:

This brief syllabus is not intended to be a legal contract. A full syllabus will be distributed to students at the first class session.

TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE (if any):

Please check with the LCC bookstore <http://www.labette.edu/bookstore> for the required texts for this class.

COURSE NUMBER: DMS 222

COURSE TITLE: SONOGRAPHY CLINICAL TRAINING III

SEMESTER CREDIT HOURS: 4

DEPARTMENT: Diagnostic Medical Sonography

DIVISION: Health Science

PREREQUISITES: DMS 221 Sonography Clinical Training II

COURSE DESCRIPTION:

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 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.

COURSE OUTCOMES AND COMPETENCIES:

Students who successfully complete this course will be able to:

1. Interact appropriately with the patient, physicians, and staff.
 - Consider pertinent patient history and supporting clinical data to facilitate optimum diagnostic results.
 - Practice appropriate communication skills with patients and colleagues.
 - Act in a professional and ethical manner, while protecting patient rights and confidentiality.
 - Provide patient education related to medical ultrasound and /or other diagnostic vascular techniques, and promote principles of good health.
 - Exercise discretion and judgment in the performance of Sonographic and / or other diagnostic services.
 - Evaluate correlation of studies on the same patient within the same time frame.

2. Create quality diagnostic Sonography images and identify anatomy, pathology and physiology of structures being imaged.

- Consider pertinent clinical information (i.e. patient history, examination findings) which in turn will aid in the examination.
- Organize/Evaluate the details of significant clinical information and historical facts from the patient and the medical records to aid the radiologist in accurate diagnosis.
- Produce a clear written/ oral summary of technical findings, including relevant changes, for the radiologist's reference.
- Analyze carefully the area of interest and point out abnormalities with ease.
- Interpret preliminary report to radiologist.

3. Apply the correct transducer type and frequency for the examinations being performed.

- Modify instrument controls including examination presets, scale size, focal zones, overall gain, time gain compensation, and frame rate to optimize image quality.
- Demonstrate Doppler ultrasound principles, spectral analysis, and color flow imaging relevant to specialty being assessed.
- Identify anatomy, physiology, pathology, and pathophysiology relevant to exam being assessed.
- Be prepared and prevent possible hazards to the person being examined.

4. Distinguish between Sonographic examinations of the abdomen, thyroid, scrotum, breast, major vasculature within the structure, and OB/Gyn.

- Differentiate normal from abnormal structures and document the abdominal, MSK, non-cardiac, breast, scrotum, thyroid, OB/Gyn, and vascular abnormalities appropriately.
- Document correctly patterns of disease processes, pathology, and pathophysiology of the major organs, fetuses, vascular structures, or area of interest.
- Modify the scanning protocol based on the Sonographic findings and the differential diagnosis.
- Perform related measurements from Sonographic images or data.
- Utilize appropriate examination recording devices to obtain pertinent documentation of examination findings and organize/present it in a preliminary report to the Doctor.
- Apply Doppler applications when required during the examination, and be able to explain the findings.
- **Perform 11 unassisted competencies:** Abdomen Complete, Abdomen (Abnormal), Abdomen Limited, Renal, Renal Artery Doppler, Thyroid, Scrotum, Aorta, Aorta Duplex, Inferior Vena Cava, Breast, and Breast with pathology.
- **Perform 13 assisted competencies:** Transabdominal Pelvic, Transvaginal Pelvic, Early 1st Trimester OB, Late 1st Trimester OB, 2nd Trimester OB, 3rd Trimester OB, Biophysical Profile, Carotid Doppler, Upper Extremity Arterial Doppler, Lower Extremity Arterial Doppler, Upper Extremity Venous Doppler, Lower Extremity Venous Doppler, and ABI's.

5. Categorize of procedures performed.

- List all procedures observed, assisted with, or performed while protecting the patient confidentiality.
- Utilize the appropriate clinical verification form to document each specialty area.
- Organize all paperwork, computer images, and required documentation for reading.
- Create patient permanent record storage. CD, PACS, or any other storing device.

6. Adequately perform general and specific duties.

- Perform Sonographic examinations of the abdomen, superficial structures, MSK, and non-cardiac chest with little to no assistance.
- Assist and perform assisted comps on OB/GYN and Vascular examinations.
- Reproduce the image on follow up exams and evaluate changes.
- Document correctly normal vs. abnormal Doppler waveforms throughout the body.
- Perform clean and sterile technique to reduce spread of disease.
- Compare images from ultrasound to images from different modalities including computed tomography, MRI, MRA, angiogram, and nuclear medicine.