



**BAKER COLLEGE**  
**STUDENT LEARNING OUTCOMES**  
**DMS 2410 Superficial Structures and Ultrasound**  
**Procedures**  
**2 Semester Credit Hours**

---

**Student Learning Outcomes and Enabling Objectives**

1. Differentiate neonatal brain, spine, and hip joint anatomy using 2D, PW, and CW Mode exam.
  - a. Analyze sonographic appearance, clinical indications, and sonographic technique used to for evaluation of neonatal brain, spine, and hip.
  - b. Identify pathological conditions associated with the neonatal brain, spine, and hip.
  
2. Differentiate prostate, penis and scrotal anatomy using 2D, PW, and CW Mode exam.
  - a. Analyze sonographic appearance, clinical indications, and sonographic technique used for evaluation of the scrotum, prostate, and penis.
  - b. Identify lab values associated with scrotum, prostate, and penis.
  - c. Identify pathology, and pathophysiology associated with scrotum, prostate, and penis.
  - d. Describe sonographic technique used for an ultrasound guided prostate biopsy.
  
3. Differentiate thyroid and parathyroid anatomy using 2D, PW, and CW Mode exam.
  - a. Analyze sonographic appearance, clinical indications, used for evaluation of the thyroid and parathyroid gland.
  - b. Identify lab values associated with thyroid and parathyroid disease.
  - c. Identify pathology and pathophysiology of the thyroid, and parathyroid glands.
  - d. Recognize normal and abnormal anatomical structures of the neck.
  
4. Differentiate abdominopelvic wall, soft tissue, and GI tract anatomy using 2D, PW, and CW Mode exam.
  - a. Analyze sonographic appearance, clinical indications, and sonographic technique used for evaluation of the abdominopelvic wall, and GI tract.
  - b. Identify lab values associated with abdominopelvic wall, and GI tract pathology.
  - c. Identify pathologies associated with the abdominopelvic wall, cavity, and GI tract.
  
5. Differentiate musculoskeletal anatomy using 2D, PW, and CW Mode exam.
  - a. Analyze sonographic appearance, clinical indications, and sonographic techniques used for evaluation of the musculoskeletal system.

- b. Identify pathology associated with musculoskeletal system.
6. Identify normal and abnormal appearance of breast anatomy using 2D, PW, and CW Mode exam.
  - a. Identify types of breast conditions, and pathology.
  - b. Analyze the roles of mammography, sonography, and computerized tomography, and magnetic resonance imaging of the breast.
  - c. Identify various interventional procedures utilized in breast pathology diagnosis.
7. Differentiate the Non-Cardiac Chest anatomy using 2D, PW, and CW Mode exam.
  - a. Analyze the anatomy of the Non-Cardiac Chest.
  - b. Identify Ultrasounds role, appearance, and anatomy of the Non-Cardiac Chest.
8. Determine the role, and sonographic technique used in interventional procedures using 2D, PW, and CW Mode exam.
  - a. Analyze clinical indications, and laboratory values for performing invasive procedures.
  - b. Illustrate various complications associated with intentional procedures.
9. Demonstrate appropriate and professional behavior expected at a clinical site.
  - a. Apply HIPPA guidelines.
  - b. Utilize professional behavior to demonstrate effective verbal and non-verbal communication skills with patient, family, and staff to provide patient care and comfort.

## **Big Ideas and Essential Questions**

### **Big Ideas**

- Professional Behavior/Patient Care
- 2D Mode
- PW Mode
- CW Mode
- Organ Measurements
- Normal Anatomy
- Abnormal Anatomy
- Exam Protocol

### **Essential Questions**

1. How do you properly perform a 2D, PW, and CW-Mode exam?
2. How do you properly perform measurements on specific organs?
3. What does professional behavior look like in the Diagnostic Medical Sonography field?

---

These SLOs are not approved for experiential credit.

**Effective: Fall 2021**