

Bossier Parish Community College  
Master Syllabus

**Course Prefix and Number:** SONO 217

**Credit hours:** 1

**Course Title:** Abdominal Sonography III

**Course Prerequisites:** Enrollment in the DMS program and completion of SONO 211

**Textbook(s):**

**Required Textbooks:** Abdomen and Superficial Structures: Diane Kawamura 4<sup>th</sup> Edition  
Textbook of Diagnostic Sonography Vol 1: Sandra L. Hagen-Asert 9<sup>th</sup> edition

**Course Description:**

Advanced study of pathology, lab values, and abnormal findings of the liver, gallbladder, kidneys, endocrine, exocrine, and lymphatic systems. As well as pathology, lab values, and abnormal findings of the superficial/small parts anatomy; thyroid, parathyroid, prostate, scrotum and testicles.

**Learning Outcomes:**

**A. Demonstrate knowledge of the physiology, pathophysiology, sonographic technique, measurements, sonographic appearances, and Doppler patterns, where applicable, in both normal and abnormal structures.**

- 1) Abdominal
  - a) Abdominal wall
  - b) Adrenal glands
  - c) Aorta and branches
  - d) Biliary system
  - e) Gastrointestinal tract
  - f) Great vessels and branches
  - g) Liver
  - h) Lung/pleura
  - i) Lymphatic system
  - j) Pancreas
  - k) Peritoneal and retroperitoneal cavities
  - l) Spleen
  - m) Urinary tract

**B. Demonstrate knowledge in sonographic guided procedures.**

- 1) Role of sonographer
- 2) Clinical information
- 3) Informed consent

- 4) Procedural time out
- 5) Transducer guidance
- 6) Sterile setup
- 7) Pre-and post-procedural documentation

**To achieve the learning outcomes, the student will or will be able to:**

- List the neoplasms that affect the abdominal wall and describe their sonographic appearance.
- Identify diaphragmatic pathologies that can be evaluated with sonography.
- Identify technically satisfactory and unsatisfactory sonographic examinations of the abdominal wall and diaphragm.
- Recognize the sonographic appearance of benign and malignant changes seen in the peritoneum.
- Analyze sonographic images of the peritoneum for pathology.
- Describe the differential diagnoses, clinical signs and symptoms, and sonographic appearance of cystic and solid liver lesions.
- Discuss ultrasound contrast enhancement of the liver, when to use it, and how it helps with diagnosing solid masses.
- Discuss the benefits of elastography of the liver
- Differentiate between the advantages and disadvantages of utilizing other gallbladder and biliary system imaging procedures to include radiography, nuclear medicine, computed tomography, and magnetic resonance.
- Identify gallbladder pathology in terms of etiology, clinical signs and symptoms, and sonographic appearance for acquired diseases to include biliary sludge, cholelithiasis, acute cholecystitis, acute acalculous cholecystitis, complicated cholecystitis, chronic cholecystitis, wall thickening, cholestasis, neoplasms, hyperplastic cholecystoses, and miscellaneous pathology.
- Identify biliary system pathology in terms of etiology, clinical signs and symptoms, and sonographic appearance for acquired diseases to include postcholecystectomy, bile duct obstruction, cholangitis, other pathology, and AIDS cholecystopathy.
- Describe the pathology, etiology, clinical signs and symptoms, and sonographic appearance for neoplastic diseases and nonneoplastic cystic lesions.
- Discuss the sonographic findings of lymphoma, leukemia, and metastases of the spleen.
- Recognize sonographic characteristics of malignant conditions of the prostate gland.
- Discuss the role of prostate sonography in biopsy guidance procedures and evaluation of suspected male infertility.
- Describe each part of the comprehensive patient history including laboratory values and medications and its importance in evaluating the patient with an organ transplantation.
- Describe the clinical presentations, pathologies, and sequelae leading to the need for an organ transplantation.
- Differentiate between organ donations from a living donor or one harvested from a cadaver.
- Illustrate the most common surgical placements for the renal, pancreas, and liver allografts with a rationale for each location.

- Correlate the sonography evaluation of a transplant patient to include the gray scale parenchymal echogenicity, Doppler data, and medical complications associated with pathology or rejection.
- Demonstrate completing a diagnostic sonography examination on patients with a renal, pancreas, and/or liver transplant.
- Discuss other procedures used to evaluate patients with organ transplants.
- Describe the benefits of sonography-guided interventional procedures.
- Discuss the indications and contraindications for sonography-guided interventional procedures.
- Explain the role of the sonographer during sonography-guided interventional procedures.
- Discuss the difference between a fine-needle aspiration and a core biopsy and the benefits of each procedure.
- List common sonography-guided interventional procedures and the potential complications involved in each.

**Course Requirements:** In order to pass the course, the student must earn 77% of the total possible points on the unit tests for the course and make a minimum score of 77% on the final exam. The student must achieve an overall course average of 77%. Grades will not be rounded. Failure to complete any of the course requirements listed below will result in an “F” for the course.

The student will:

- Participate in/complete all classroom/laboratory experiences (such as discussion questions; quizzes; section test; case studies; concept mapping; DVD, video, web-site, or reading assignments).
- Be held responsible for the content of the entire course. The final exam is mandatory, will be cumulative, and worth 25% of the overall grade for the course.

#### **Course Grading Scale:**

93 –	100%=	A
85 –	92%=	B
77 –	84%=	C
69 –	76%=	D
0 –	68%=	F

**Attendance Policy:** The college attendance policy (for the classroom) is available at <http://catalog.bpcc.edu/content.php?catoid=5&navoid=369#class-attendance>

**Course Fees:** (if applicable)

**Nondiscrimination Statement**

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COORDINATOR FOR SECTION 504 AND ADA

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