

**LANCASTER GENERAL COLLEGE OF NURSING AND HEALTH SCIENCES
DIAGNOSTIC MEDICAL SONOGRAPHY PROGRAM**

SYLLABUS

- I. Title: DMS 201 – ABDOMEN
- II. Course Description: This course will give the student a comprehensive understanding of the pathological processes that may affect the abdominal organs. Diseases of the liver, biliary tract, pancreas, urinary system, spleen, and gastrointestinal tract are included in this discussion. The coursework also includes the following superficial structures: thyroid, parathyroid, and breast. Classroom instruction will be coordinated with certain lab and clinical activities in the DMS 203 course.
- III. Prerequisite: DMS 110
- IV. Placement: Year II – Semester I, concurrent with DMS 203
- V. Time Allotment:
- | | | |
|---------------------|----|-------|
| Theory | 90 | hours |
| Clinical Laboratory | 0 | hours |
- VI. Faculty: Robert M. Hess, BS, RDMS, Brent A. Miles, RDMS, RVT, RT
- VII. Credits: 6
- VIII. Evaluation:
- | | | |
|---------------------|------------|---------------|
| 7 Unit Exams | 590 | Points |
| Quizzes | <u>160</u> | <u>Points</u> |
| Total Theory Points | 750 | Points |
- *A grade of "C" (2.0) is required to pass the theory portion of the course.**
- IX. Textbooks: DIAGNOSTIC ULTRASOUND, RUMACK, 2005
ATLAS OF HUMAN ANATOMY, Netter, 2006
LGH PROTOCOL MANUAL
SDMS GUIDELINES

- X. Course Objectives: Given the theoretical content, at the completion of Abdomen, the student will demonstrate that he/she has the knowledge to:
1. Describe specific disease processes of the liver, spleen, biliary tract, pancreas, urinary tract, spleen, gastrointestinal tract, thyroid, parathyroid, and breast.
 2. Identify the clinical and lab findings associated with each abnormality.
 3. Describe characteristic sonographic features of each abnormality.
 4. Explain how the standard sonographic imaging protocol is modified to document the disease process.
- XI. School Policies: Students are held accountable for all policies in the Student Handbook and any revisions made to those policies during the academic year.
- XII. Class:
- A. Importance of Attending Class
- Education comprises more than just private reading and passing of exams. Students should recognize that active and informed participation in class is essential to the development of their intellectual abilities and scholarly growth. Students must also recognize the importance, for both the present and the future, of achieving an academic record that reflects their intellectual ability. Such records are seldom achieved without regular attendance and participation in class activities. Attendance will be taken.
- B. Student Responsibility for Missed Material
- Students are responsible for all material presented and announcements made in class, regardless of attendance. It is the student's responsibility to obtain materials and assignments if absent.
- C. Unit Examinations
- Examinations should only be missed in extenuating circumstances. A student who misses an examination will be required to make up the examination on the next day of lecture. Contact the Course Faculty prior to the next lecture day to make arrangements to take the exam.
- A student who misses an examination, regardless of the reason, will have ten percent (10%) deducted from the grade achieved on the exam.
Example: The exam is worth sixty (60) points, the student takes the exam and achieves a grade of 52/60. The score of 52 is then decreased by ten percent (10%) or five (5) points, thus the grade on the exam will be 47/60. An alternate examination may be given for the make-up examination.
- D. Class Behavior
- Once class has started, the instructor has the prerogative not to admit students into lecture. Students will be dismissed from class for any inappropriate behavior.

E. Written Assignments:

All submitted written work must follow the College of Nursing and Allied Health Writing Guidelines.

XIII. Other:

A. Academic Dishonesty and Plagiarism

Academic dishonesty violates the spirit and purpose of an academic community, and is therefore subject to disciplinary action. Academic dishonesty includes cheating on examinations, unauthorized duplicated submission of work, and/or unauthorized possession of exams.

Plagiarism is an act of academic dishonesty. Any work submitted that is not your own is an act of plagiarism. In preparing assignments, you must acknowledge in writing, any use of outside sources or any assistance you received in preparing an assignment.

If an instructor believes that a student has committed an act of academic dishonesty or has plagiarized material, the instructor will award a failing grade for that assignment to the student. If the occurrence is during an examination, the student will receive a zero for that portion of their grade and must leave the room.

If the student disagrees with this decision, the student may follow the grievance procedure.

CONTENT	HOURS	STUDENT ACTIVITIES	COURSE OBJECTIVE
<u>Liver Pathology</u>			
<p>II. Liver</p> <p>A. Anomalies</p> <p>B. Causes of Jaundice</p> <ol style="list-style-type: none"> 1. Disorders of Unconj. Bilirubin 2. Disorders of Conjugated Bilirubin 3. Hepatocellular Disease <p>C. Hepatitis</p> <ol style="list-style-type: none"> 1. Viral 2. Bacterial 3. Drug Induced 4. Symptoms 5. Stages/US Appearance <p>D. Cirrhosis</p> <ol style="list-style-type: none"> 1. Fatty Liver 2. Hepatic Fibrosis 3. Cirrhosis <ol style="list-style-type: none"> a. Types b. Causes c. Findings d. US Appearance <p>E. Portal Hypertension</p> <ol style="list-style-type: none"> 1. Causes 2. Findings 3. Collaterals 4. US Protocol 5. Treatment 6. Budd-Chiari <p>F. Tumors</p> <ol style="list-style-type: none"> 1. Primary 2. Metastases 3. Biopsy Protocol 4. Benign Tumors <p>G. Infections</p> <ol style="list-style-type: none"> 1. Bacterial 2. Fungal 3. Parasitic <p>H. Trauma</p> <p>I. Miscellaneous</p>	<p>Class:</p> <p>18 hrs</p>	<p>Rumack, Ch. 4 Rumack, Ch. 57 (Liver) SDMS ABD, p. 8-15</p> <p>Demo in DMS 203 lab</p> <p>Portal Hypertension</p> <p>SDMS ABD, p. 15-20</p>	<p>1-4</p>

CONTENT	HOURS	STUDENT ACTIVITIES	COURSE OBJECTIVE
<u>Pancreas Pathology</u>			
<p>III. Pancreas</p> <p>A. Anomalies</p> <p>B. Acute Pancreatitis</p> <ol style="list-style-type: none"> 1. Causes 2. Etiology 3. Complications 4. Symptoms 5. US Appearance <p>C. Chronic Pancreatitis</p> <ol style="list-style-type: none"> 1. Physical Changes 2. Symptoms 3. US Appearance 4. Calcifications <p>D. Pancreatic Tumors</p> <ol style="list-style-type: none"> 1. Exocrine 2. Endocrine 3. Metastases <p>E. Lab Values</p>	<p>Class:</p> <p>5 hrs</p>	<p>Rumack, Ch. 7 Rumack, Ch. 59 (Panc) SDMS ABD,p. 52-59</p> <p>Demo in DMS 203 and Lab Assignment:</p> <p>Pancreas Water Technique (4 hrs)</p>	<p>1-4</p>
<u>Lymphatic System</u>			
<p>I. A&P Review of Lymphatic System</p> <ol style="list-style-type: none"> A. Vessels B. Nodes C. Organs <p>II. Pathology</p> <ol style="list-style-type: none"> A. Lymph Nodes B. Spleen <ol style="list-style-type: none"> 1. Anomalies 2. Splenomegaly 3. Cysts 4. Abscess 5. Masses 6. Trauma 	<p>Class:</p> <p>4 hrs</p>	<p>Rumack, Ch. 5 Rumack, Ch. 57 (Spleen) SDMS ABD,p. 96-105</p>	<p>1-4</p>
CONTENT	HOURS	STUDENT ACTIVITIES	COURSE OBJECTIVE

<u>Gastrointestinal Tract</u>			
<p>I. Anatomy</p> <p>II. GI Tract Tumors</p> <p style="padding-left: 20px;">A. Adenocarcinoma</p> <p style="padding-left: 20px;">B. Mesenchymal Tumors</p> <p style="padding-left: 20px;">C. Lymphoma</p> <p style="padding-left: 20px;">D. Metastases</p> <p>III. Inflammatory Disease</p> <p style="padding-left: 20px;">A. Crohn's</p> <p style="padding-left: 20px;">B. Appendicitis</p> <p style="padding-left: 20px;">C. Diverticulitis</p> <p style="padding-left: 20px;">D. Infections</p> <p style="padding-left: 40px;">1. Mesenteric Adenitis</p> <p style="padding-left: 40px;">2. AIDS</p> <p style="padding-left: 40px;">3. Colitis</p> <p>IV. Bowel Obstruction</p> <p style="padding-left: 20px;">A. Mechanical Ileus</p> <p style="padding-left: 20px;">B. Paralytic Ileus</p> <p style="padding-left: 20px;">C. Pyloric Stenosis</p> <p style="padding-left: 20px;">D. Intussusception</p>	<p>Class:</p> <p>4 hrs</p>	<p>Rumack, Ch. 8</p> <p>Rumack, Ch. 59</p> <p>SDMS ABD,p. 132-145</p>	<p>1-4</p>

CONTENT	HOURS	STUDENT ACTIVITIES	COURSE OBJECTIVE
<u>Thyroid</u>			
<p>I. Anatomy & Physiology</p> <p style="padding-left: 20px;">A. Thyroid Worksheet</p> <p style="padding-left: 20px;">B. Thyroid Protocol</p> <p>II. Pathology</p> <p style="padding-left: 20px;">A. Congenital Anomalies</p> <p style="padding-left: 20px;">B. Hyperthyroidism</p> <p style="padding-left: 40px;">1. Follicular Adenoma</p> <p style="padding-left: 40px;">2. Gen. Hyperplasia</p> <p style="padding-left: 40px;">3. Thyroiditis</p> <p style="padding-left: 20px;">C. Hypothyroiditis</p> <p style="padding-left: 40px;">1. Absence or underdevelopment</p> <p style="padding-left: 40px;">2. Simple Goiter</p> <p style="padding-left: 40px;">3. Multinodular Goiter</p> <p style="padding-left: 40px;">4. Hashimoto's thyroiditis</p> <p style="padding-left: 20px;">D. Simple Cysts</p> <p style="padding-left: 20px;">E. Malignant Tumors</p> <p style="padding-left: 40px;">1. Papillary Carcinoma</p> <p style="padding-left: 40px;">2. Foll. Adenocarcinoma</p> <p style="padding-left: 40px;">3. Medullary Carcinoma</p> <p style="padding-left: 40px;">4. Anaplastic Carcinoma</p> <p style="padding-left: 40px;">5. Lymphoma</p> <p style="padding-left: 40px;">6. Mets. to the Thyroid</p> <p style="padding-left: 20px;">F. Extrathyroidal Masses</p> <p style="padding-left: 40px;">1. Branchial Cleft Cyst</p> <p style="padding-left: 40px;">2. Thyroglossal Duct Cyst</p> <p style="padding-left: 40px;">3. Lymph Nodes</p> <p style="padding-left: 40px;">4. Abscess</p> <p style="padding-left: 40px;">5. CA Invasion of Neck</p> <p style="padding-left: 40px;">6. Enlarged Parathyroid</p> <p style="padding-left: 40px;">7. Traumatic Pseudocyst</p> <p style="padding-left: 40px;">8. Carotid Body</p> <p style="padding-left: 20px;">G. Thyroid Biopsy</p>	<p>Class:</p> <p>7 hrs</p>	<p>Rumack, Ch. 21 SDMS ABD,p. 150-155</p> <p>Demo in the DMS 214 Lab: Lab Assign: Thyroid Protocol (4 hrs)</p>	1-4
CONTENT	HOURS	STUDENT ACTIVITIES	COURSE OBJECTIVE

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<p style="text-align: center;"><u>Parathyroid</u></p> <p>I. Anatomy A. Normal Glands B. Embryo Development C. Ectopic Location D. Size</p> <p>II. Physiology</p> <p>III. Pathology A. Hypoparathyroidism B. Hyperparathyroidism 1. Single Adenoma 2. Gen. Enlargement 3. Carcinoma</p>	<p>Class:</p> <p>1 hr</p>	<p>Rumack, Ch. 22 SDMS ABD, p. 148-50</p>	<p>1-4</p>

<u>Breast</u>			
<p>I. Anatomy & Physiology</p> <p>A. Breast Worksheet</p> <p>B. Breast Protocol</p>	<p>Class:</p> <p>1 hrs</p>	<p>Rumack, Ch. 23 SDMS ABD, p. 162-67</p> <p>Demo in the DMS 214 Lab: Breast Protocol (2 hrs)</p>	<p>1-4</p>
<p>III. Pathology</p> <p>A. Cysts</p> <p>B. Benign Masses</p> <ol style="list-style-type: none"> 1. Fibroadenoma 2. Cystosarcoma Phylloides 3. Giant Fibroadenoma 4. Focal Fibrosis 5. Fibroadenolipoma 6. Lipoma 7. Sebaceous cyst 8. Galactocele 9. Papilloma 10. Abscess <p>C. Malignant Masses</p> <ol style="list-style-type: none"> 1. Infiltrative Ductal CA 2. Infiltrative Lobular CA 3. Medullary Carcinoma 4. Mucinous Carcinoma 5. Tubular Carcinoma 6. Papillary Carcinoma <p>D. Interventional Procedures</p> <ol style="list-style-type: none"> 1. Cyst Aspiration 2. Presurgical Needle Localization 3. Complications <p>E. Miscellaneous</p> <ol style="list-style-type: none"> 1. Breast Implants 2. Lumpectomy 3. Nodal Metastases 4. Doppler application 5. Male Breast 	<p>Class:</p> <p>6 hrs</p>		<p>1-4</p>