Course Prefix/Number/Title: DMS-221 Abdominal Ultrasound I

Number of Credits: 2 semester credits

Course Description:
This course is the study of the anatomy, physiology and pathology of the upper abdominal and peritoneal cavities to include the aorta, celiac trunk, superior mesenteric artery, iliac arteries, inferior vena cava, kidneys, bladder, gastrointestinal organs, abdominal wall, peritoneum and diaphragm as visualized by sonography. Course study will also include the application of Doppler principles. This course is integrated with DMS-221L, a hands-on sonographic scanning lab that focuses on the knowledge, skills and techniques for acquisition of appropriate sonographic protocols and image optimization of the abdomen. Color and spectral Doppler applications will also be applied to the appropriate anatomy.

Pre-requisites: DMS-201
Corequisites: DMS-221L

Instructor: Amy Hofmann

Office: Suite 302 5th Ave Building, Trinity Health

Office Hours: 9 AM to 2 PM Tu, Th and by appointment

Phone: 857-5620

Email: amy.hofmann@trinityhealth.org

Lecture Schedule: 12:00 – 2:00 pm Wed. September 20 to December 17 in Suite 301

Lab Schedule: 8:30–10:30 pm MW September 20 to November 8 in Suite 301

Textbook: Diagnostic Sonography, Hagen-Ansert, 8th Edition

Lab Manual: Trinity Health Clinical Education Handbook

Course Requirements:
Grading is based on completion of assignments, quizzes and test.

Assignments	15%
Quizzes	15%
Test	70%

Consistent with class attendance policy, the student is responsible for attending every class and for the material presented. If a student will not be attending a class, he/she must notify the Program Director prior to absence to plan for makeup time and activities.
Grading Criteria
A = 94-100% of the total points

B = 87 - 93% of the total points
C = 80 - 86% of the total points
F = <79% of the total points

Tentative Lecture Outline:

WEEK	TOPIC	READING
9/20	Body Systems, Indications, signs and symptoms	Chpt 4
9/27	abdominopelvic organ imaging	
10/4	Anatomic and physiologic relationships of	Chpt 5
10/11	abdominopelvic cavity; Sectional anatomy	
10/18	aorta normal anatomy, vascularity, clinical signs	Chpt 8
10/25	Renal/urinary system anatomy	Chpt 15
11/1	renal/urinary system physiology, lab data	
11/8	pancreas anatomy, physiology	Chpt 12
11/15	spleen anatomy, physiology	Chpt 11
11/22	sonographic appearance of pancreas, spleen	
11/29	pathology; review	
12/6	review aorta, urinary system, pancreas, spleen	
12/13	final test on aorta, urinary system, pancreas, spleen	

Course Goal and Objectives

Goal:

The goal of this course is to introduce the sonography student to the basics of ultrasound imaging techniques used in abdominal scanning, identify abdominal organ anatomy in the transverse and longitudinal planes

Objectives:

1. Describe scanning techniques and protocols used in abdominal scanning.
2. Identify abdominal sectional anatomy in transverse and longitudinal planes.
3. Explain terminology used to describe the results of normal ultrasound examinations.
4. Define the criteria for an adequate diagnostic abdominal ultrasound examination.
5. Describe renal function tests and their relevance to renal disease.
6. List the clinical signs and sonographic features for pathology discussed in course.
7. Describe the normal sonographic pattern of aorta, spleen, pancreas and kidneys.
8. Differentiate the sonographic appearances of the aorta, kidneys, spleen, pancreas and related pathologies discussed in this course.

General Education (GE) Goal and Objectives

Not applicable

Relationship to Campus Theme:

This course addresses a DMS Program theme by developing the knowledge and psychomotor scanning skill sets necessary to perform abdominal sonography utilizing the protocols and techniques that are currently used in sonographic imaging.

Classroom Policies

1. Cell phones and related devices are prohibited in the classroom at all times. It is recommended that you do not bring your cell phone or other electronic devices into the classroom or, at the very least, turn it off.
2. Food and beverages are permitted in accordance with classroom policy.
3. Be respectful of other students, instructors, and guests.

Student Email Policy

Trinity Health is increasingly dependent upon email as an official form of communication. A student's assigned email address will be the only one recognized for official mailings. The liability for missing or not acting upon important information conveyed via Trinity Health DMS Program email rests with the student.

Academic Integrity

All students are expected to adhere to the highest standards of academic integrity. Dishonesty in the classroom or laboratory and with assignments, quizzes and exams is a serious offense and is subject to disciplinary action by the Program Director. For more information, refer to the DMS Program Handbook policies.

Disabilities and Special Needs

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact the Program Director (701-857-5620) as early as possible during the beginning of the semester.