

Course Prefix/Number/Title: DMS-222 Abdominal Ultrasound II

Number of Credits: 3 semester credits

Course Description:

This course is the continuation study of the anatomy, physiology, pathology and pathophysiology of the upper abdominal cavity, peritoneal cavity to include: abdominal vasculature, liver, biliary system, pancreas, spleen, gastrointestinal organs, abdominal wall, retroperitoneum and diaphragm as visualized by sonography, including the application of Doppler principles. This course is integrated with DMS-222L, 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-221

Corequisites: DMS-222L, DMS-211, DMS-232, DMS-232L, DMS-282

Course Objectives:

1. Describe the anatomy, normal sonographic pattern of and relational landmarks of the abdominal organs to include liver, biliary system, pancreas, spleen and kidneys.
2. Describe scanning techniques and protocols used in liver, biliary system, pancreas, spleen and abdominal vascular scanning.
3. Identify abdominal sectional anatomy in transverse and longitudinal planes.
4. Describe the anatomy and relational landmarks of the gastrointestinal tract.
4. Define the criteria for adequate, diagnostic abdominal, vascular and gastrointestinal tract ultrasound examinations.
5. Explain terminology used to describe the results of normal ultrasound examinations.
6. List the clinical signs and sonographic features for pathology discussed in course.
7. Describe renal function tests and their relevance to renal disease.

Instructor: Amy Hofmann

Office: Suite 302 5th Ave Building, Trinity Health

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

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Lecture Schedule: 10:30 – 12:30 pm Wed. January 10 to May 10 in Suite 301

Lab Schedule: 8:30 – 10:30 pm Wed January 10 to May 10 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:

<u>WEEK</u>	<u>TOPIC</u>	<u>READING</u>
1/8	Gallbladder, biliary system	Chpt 10
1/15	Biliary pathology	
1/22	Liver anatomy, physiology, pathology	Chpt 9
1/29	continued	
2/5	continued	
2/12	Liver Doppler	Chpt 8
2/19	Pancreas sonography	Chpt 12
2/26	Spleen sonography	Chpt 11
3/4	March 4-8 Spring Break	
3/11	Right Upper Quadrant (RUQ) sonography	
3/18	Abdominal vascular anatomy review	Chpt 8
3/25	Gastrointestinal System	Chpt 13
4/1	continued	
4/8	Retroperitoneum	Chpt 16
	Abdominal pelvic wall, peritoneal cavity	Chpt 14
4/15	Urinary system review	Chpt 15
4/22	continued	
5/1	Review	
5/8	Final testing	

CTE Competency/Department Learning Outcome(s):

CTE Competency #1: Employ industry-specific skills in preparation for workplace readiness

Learning outcome #1 – Students will be able to formulate effective technical factors based on patient body habitus, pathology and equipment limitations. SLO 1.1

Learning outcome #2 – Students will demonstrate effective written communication skills to articulate appropriate patient information SLO 2.1

Relationship to Campus Theme:

This course addresses a DMS Program theme by developing the knowledge and psychomotor scanning skill sets necessary to perform abdominal, abdominal vascular sonography and image guided invasive procedure imaging, 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:

The Trinity Health campus community is increasingly dependent upon electronic communication among faculty, staff and students. A student's campus-assigned e-mail address will be the only one recognized by the campus for official mailings. The liability for missing or not acting upon important information conveyed via email because of a failure to access a campus-assigned e-mail address rests with the student. Additionally, student must provide Trinity Health DMS faculty with a personal email address for communication while in the program.

Academic Integrity:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred. Additionally, dishonesty in the classroom or laboratory and with assignments, quizzes and exams is a serious offense and is subject to disciplinary action by the DMS Program Director. For more information, refer to the Trinity Health DMS Program Handbook policies.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX:

Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.