

**Course Prefix/Number/Title:** DMS 224 Abdominal Ultrasound IV

**Number of Credits:** 2

**Course Description:** This course is the continuation study of the anatomy, physiology, pathology and pathophysiology of the abdomen with a focus on the knowledge, skills and techniques for acquisition of appropriate sonographic protocols and image optimization. Topic coverage will include the abdominal wall, cavities, gastrointestinal tract, neonatal brain, spine, hip and musculoskeletal sonographic techniques. Color and spectral Doppler applications will also be applied to the appropriate anatomy.

**Pre-requisites:** None

**Corequisites:** DMS-242, DMS-242L DMS-250, DMS-285

**Course Objectives:**

1. Describe scanning techniques and protocols used in abdominopelvic cavity imaging.
2. Identify sonographic and cross-sectional anatomy and relational landmarks of the abdominopelvic region.
3. Define terminology used to describe the sonographic imaging of the gastrointestinal tract.
4. Describe criteria for adequate diagnostic imaging and Doppler evaluation of anatomical and vascular structures of abdominopelvic cavity ultrasound examinations.
5. List the clinical signs and sonographic features for pathology discussed in course.
6. Describe common, appropriate indications for the use of sonographic imaging of the hepatobiliary and urinary systems, pancreas, spleen, brain, spine and hip in pediatric procedures.
7. Describe scanning techniques and protocols used in pediatric abdomen, brain, spine and hip Imaging.
8. Describe scanning techniques and protocols used in musculoskeletal sonographic imaging.

**Instructor:** Amy Hofmann

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

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**Lecture Schedule:** 10:00-12:00 Tu, January 9 to May 10 in Suite 301

**Lab Schedule:** None

**Textbook:** Diagnostic Sonography, Hagen-Ansert, 8<sup>th</sup> 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	anatomy and physiology of abdominopelvic cavity	Chpt 4
1/15	comparative sectional abdominopelvic anatomy	Chpt 5
1/22	anatomy and physiology of gastrointestinal tract	Chpt 13
1/29	cont.	
2/5	peritoneal cavity and abdominal wall	Chpt 14
2/12	retroperitoneum	Chpt 16
2/19	neonatal abdomen and urinary system	Chpt 25, 26
2/26	neonatal and infant brain and spine	Chpt 27, 29
<b>3/4</b>	<b>March 4-9 SPRING BREAK</b>	
3/11	Comprehensive Review	
3/18	Comprehensive Review	
3/25	Comprehensive Review	
4/1	Comprehensive Review	
4/8	infant and pediatric hip	Chpt 28
4/15	Introduction to MSK	Chpt 24
4/22	review	
4/29	review	
5/6	Final Test	

**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 ability to critically evaluate completed images for diagnostic quality. SLO 1.2

Learning outcome #3 – Students will demonstrate effective written communication skills to articulate appropriate patient information SLO 2.1

### **Relationship to Campus Focus:**

This course addresses a DMS Program theme by developing the knowledge and psychomotor scanning skill sets necessary to perform sonography of abdominopelvic cavity, gastrointestinal tract, neonatal abdominopelvic, spine, brain and hip 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**

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email 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 campus email 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**

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. Additionally, 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.

### **Disabilities and Special Needs**

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services within the first two weeks of the semester to line up accommodations.

**Title IX:**

Trinity Health and affiliated college and university faculty, Dakota College at Bottineau (DCB) and Minot State University, 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.