



LINCOLN UNIVERSITY

DI 160 – Abdomen and Small Parts II

Course Syllabus

Summer 2026

Instructor: Dr. Khatia Mania
Lecture Schedule: Tuesdays & Thursdays 9:00 – 11:45am
Credits: 3 units (45 hours of lectures)
Pre-requisites: DI 150
Level: Introductory (I)
Office Hours: By appointment
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TEXTBOOKS:

1. Textbook of Diagnostic Sonography: 2-Volume Set 9th Edition (2022) by [Sandra L. Hagen-Ansert MS RDMS RDCS FASE FSDMS](#) (Author)
ISBN-10 : 0323826466 ISBN-13 : 978-0323826464
2. Textbook of Diagnostic Ultrasonography: 1st Volume, Sandra L. Hagen-Ansert 2006, ISBN-10: 0323028039
3. Diagnostic Medical Sonography – Abdomen and Superficial Structures: Fourth edition. Diane M. Kawamura; Tanya D. Nolan 2018, ISBN – 13: 978-1-4963-5492-1

Last Revision: May, 2026

NOTE: The instructor may change this syllabus and course schedule at any time according to the judgment as to what is best for the class. Any changes will be declared ahead of time in class.

CATALOG DESCRIPTION

The course is continuation of study of anatomy and pathology of abdominal and superficial structures in ultrasound imaging. Areas of consideration include thyroid, parathyroid, breast,

neck, lymph nodes, gastrointestinal tract, as well as scanning techniques and performances following standard protocols (3 units).

Prerequisite: DI 150

COURSE OBJECTIVES

Upon completion, students should be able to:

- Assist patients to and from the exam area
- Explain the examination and instruct the patient properly
- Describe a scanning survey and explain its importance prior to taking images
- Explain the selection of the proper transducer for the exam
- Explain the elements of film labeling
- Describe optimal techniques related to field size, power, gain, and contrast for image interpretation
- Present films in a logical sequence
- Describe the anatomy, physiology, normal variations, and pathology of the liver, gall bladder and biliary tract, pancreas, spleen, urinary tract, great vessels and identify their normal and abnormal sonographic structural appearance
- Demonstrate knowledge of abdominal pathological findings
- Explain the significance of clinical tests relevant to pathology within the abdomen
- Explain the sonographic findings and differential diagnosis of abdomen pathology

COURSE LEARNING OUTCOMES¹

	Course Learning Outcome	Program Learning Outcomes	Institutional Learning Outcomes	Assessment activities
1	Present sonographic images demonstrating a logical and methodical approach to scanning and communicate findings clearly and accurately.	PLO 1	ILO 1a, ILO 2a, ILO 3a	In-class activities, quizzes, midterm and final exams.
2	Produce sonographic images based on male pelvis protocols, thyroid and breast protocols.	PLO 2	ILO 1a,	In-class activities.
3	Recognize a range of normal and abnormal image appearances of the areas listed in the syllabus and explain the contributing role and nature of pathologic and developmental processes.	PLO 3	ILO 1a, ILO 4a	In-class activities, quizzes, midterm and final exams.

¹ Detailed description of learning outcomes and information about the assessment procedure are available at the [Learning Outcomes Assessment](#) section of LU website.

INSTRUCTIONAL METHODS

Instructional methods will include lectures and in-class learning activities. Classroom activities are collaborative — students may and should help each other. The instructor will be available to help students with all tutorials and other assignments.

The previously described topics will be presented through the aid of the following activities:

- Reading assigned textbooks and lecture outlines (handouts);
- Demonstration of lectures by using the Power Point;
- Recommended study guide activities;
- Internet resources;
- Group discussions and ultrasound case analyses;
- Quizzes & examinations;
- Working with ultrasound machines;
- Hands-on ultrasound laboratory training (protocols handouts);
- Ultrasound laboratory live & video demonstrations;
- Students' ultrasound hands-on self-study training.

Assignments and projects require students to actively use resources of the library. Detailed guide to business *resources of the library* as well as the description of Lincoln University approach to *information literacy* are available at the [LU Library](http://lincolnuca.libguides.com) website (lincolnuca.libguides.com).

REQUIREMENTS

- This is a lecture-lab course in which lecture topics are presented by the instructor, and the ultrasound hands-on lab practice is explained and demonstrated by the lab instructor.
- Students are expected to be prepared in advance before the class sessions.
- Being prepared includes the following: having read text materials (e.g., reading textbooks and lecture outlines) assigned for each class session and bringing required work materials (e.g., textbook, handouts, writing supplies, etc.) to the session.
- Homework assignments will include reading the topic(s) one week ahead of time.
- Students are expected to attend and participate in all lectures and activities, and complete all quizzes, examinations and course assignments on time. Therefore, attendance and being on time are crucial to your final grade.
- Students should understand that “introductory” does not mean “easy”.
- Students must budget time efficiently and be realistic about all personal and professional commitments that consume time.

ACADEMIC HONESTY

The University maintains a strict policy concerning academic dishonesty, which includes cheating, plagiarism, giving assistance on an examination or paper when expressly forbidden by the instructor, and any other practices which demonstrate a lack of academic integrity. It is the responsibility of the students to know and to adhere to principles of academic honesty. A student found guilty of academic dishonesty will be subject to academic sanctions ranging from failure on the assignment to failure in the course too.

COURSE GUIDELINES

To successfully complete this course, the students must pass the quizzes, homework and final exam portions with 70% or better. Students should attend all the class meetings. However,

considering possible urgent situations, students may be absent from a maximum of four class meetings with prior notice to the instructor. Three late arrivals (more than 15 minutes late) would affect the grade. Students cannot take the test after being more than 15 minutes late after the start of testing time. That test will not be made up and there will be no grade for that test. Leaving the class early will also affect the grade. Students will be dismissed from the class after missing 3 consecutive classes by reporting to the Registrar.

The term grade is based on attendance, class activity, project, midterm and/or sum of quizzes, final examination. Individual projects will be assigned at the beginning of the semester. The project is due by the last meeting before the final examination. No project will be accepted after the due date.

If students have missed a class without a valid reason, no make-up for quizzes and presentations will be allowed. No make-up for missed or failed midterm. **Final examination, if failed, can be retaken only once. If failed a second time, the subject is considered failed.** Dictionaries can be used during class time. No electronic devices during the test time. A student must take the exam during the scheduled time. A student missing an exam/test because of an illness or legitimate emergency may take a make-up exam within one week after the student returns from the illness and as determined by the instructor. In such circumstances, the student should make every reasonable attempt to contact the instructor before the exam period is over (or as soon as possible). While make-up exams will cover the same content area as a missed exam, the exam format and specific questions may be different.

During the written exam, any student observed in a situation that could be considered suspicious (e.g., an open book within his/her field of vision, looking around or checking a cell phone or other wireless devices, etc.) but no cheating is observed, will be warned. Once warned, any applicant found cheating on the written exam will be failed for the exam and prohibited from retaking the written exam without permission from the dean.

Students cannot leave the room during the test/exam. As soon as a student leaves, his/her exam is considered finished.

Lectures are not a substitute for textbooks. Students should read textbooks and use other sources to be prepared for the tests. The lecture is to guide the students to prepare for the course subjects.

HOMEWORK

The goal of the homework is to help students achieve the course learning objectives. Homework consists of two parts.

The first part is to read the textbooks and materials to review and analyze the lecture given during a previous class session. Students are expected to spend six hours for each class session outside of class in completing the reading assignments related to each lecture. These assignments are graded through short quizzes given at the beginning of the following class session.

The second part of the homework consists of a project presented at the end of the course. Each student will choose the topic for presentation or will be assigned one by the instructor. The presentation should be approximately 10 minutes long and with 5 minutes for a discussion. The topic and format for the presentation will be discussed in class for more details. A final draft of the presentation must be submitted for review one week prior to the presentation.

Evaluation Criteria for Project:

- Clinical statement: 2%

- Background information: 2%
- Slide content: 2%
- Slide design: 1%
- Resolution of the problem: 2%
- Oral presentation in class: 1%

Total: 10% of all the course grading elements

TESTING

Quizzes:

Students will take 10-12 quizzes; 20-30 questions each. These quizzes will address the detailed content and major concepts presented in the lectures, lecture outlines and text readings to evaluate students' work outside of the classroom. Each quiz will be timed; 1 minute for every question to complete. No make-up for missed quizzes will be administered if the student doesn't provide supporting documents to excuse the absence (students will receive no score for missed quizzes).

GRADING

All activities will be graded according to the points as shown below.

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	F
Points	93-100	90-92	87-89	84-86	81-83	78-80	76-77	74-75	72-73	70-71	0-69

The final grade for the course will be given as the total weighted score for all activities according to the percentage shown in the table below.

Activity	Percent
Class Attendance	10%
Class Activity	10%
Quizzes	20%
Midterm Exam	20%
Project	10%
Final Exam	30%
Total	100%

CLASSROOM PROTOCOL

- All students are expected to display professionalism, in preparation for hospital work. That means arriving on time, remaining quiet when others are speaking, and paying attention to the lecture and discussion, no matter who has the floor in the classroom.
- Students are expected to attend and be prepared for all regularly scheduled classes. If a student knows in advance that he or she will need to leave early, the student should notify the instructor before the class period begins.
- Students are expected to treat faculty and fellow students with respect. For example, students must not disrupt class by leaving and reentering during class, must not distract class by making noise, and must be attentive to comments being made by the instructor and by peers.
- Never speak while the instructor is speaking.

- **Disruptive behavior will not be tolerated.**
- Students engaging in disruptive behavior in class will be asked to leave and may be subject to other penalties if the behavior continues.
- No eating, sleeping or personal grooming is permitted during lecture and ultrasound laboratory classes.
- Drinks only in a closed container.
- Please turn off your cell phones, and refrain from activities that disrupt the class (such as eating and walking in and out of the room while class is in session).
- If you use a computer in class, please use it only to take notes, to access course materials from the course webpage, or to locate information relevant to the class discussion. Do not use your computer to surf the web, check emails, or send/receive text messages, as these activities are distracting to those around you (and decrease your chances of getting the most out of your time in class).
- To encourage the free flow of conversation, no part of any class may be recorded on audio or video media without the permission of the instructor. You may record notes by hand or by typing into a mobile computer.
- The presence of guests to listen to any part of a class requires the consent of the instructor.

SCHEDULE OF TOPICS

06/09/2026 – GI tract.

06/11/2026 – Lower urinary system. Quiz # 1

06/16/2026 – Retroperitoneum. Quiz # 2

06/18/2026 – Adrenal glands. Quiz # 3

06/23/2026 – Thyroid/parathyroid. Quiz # 4

06/25/2026 – Thyroid/parathyroid.

06/30/2026 – Breast. Quiz # 5

07/02/2026 – Breast. Quiz # 6

07/07/2026 – **Midterm examination**

07/09/2026 – Prostate.

07/14/2026 – Scrotum. Quiz # 7

07/16/2026 – Scrotum. Quiz # 8

07/21/2026 – Review and **Final Examination.**

07/23/2026 – **Presentations of Projects.**

DUE DATE

Due date for the project is 07/23/2026