

Ultrasound Technique RAD 414

4 th year Semester 1				
Course Title	Lecture	Tutorial	Practical	Credit Hours
Ultrasound Technique	2	-	1	2

Course Description

This course is a study of the clinical applications within the specialty of abdominal and small parts ultrasonography. Topics of discussion include the correct use of all technical and medical terms that are necessary for a complete discussion of sonographic procedures within abdomen and small parts, related clinical symptoms and laboratory test, normal vs abnormal sonographic patterns of the anatomy studied, related disease processes and sonographic protocol for each of the exams covered in the course.

Prerequisite

RAD 324

Text Book

Textbook of Diagnostic Ultrasonography, 5th Ed. Volume 1, Author; Sandra L. Hagen-Ansert, Editor: Jeanne Wilke, Publication : 2001 by Mosby, Inc. St. Louis, Missouri.

Course Objective

Upon completion of the course the student will have gained basic entry level skills and knowledge in abdominal and small parts sonographic examinations. This course shall guide the student toward the following goals : to gain :-

- 1- Knowledge about positioning and scanning patients and in properly setting system controls for the sonographic examinations used within the specialty of abdominal and small parts ultrasound.
- 2- Knowledge about the correct use of all technical and medical terms which are necessary for a complete discussion of sonographic procedures

- 3- Knowledge about Identification of normal and abnormal patterns during the related sonographic examinations.
- 4- Knowledge about describing the standard scanning procedures for the major organs and structures.

Topic Covered:

Lecture1

Principles of scanning techniques

Lecture2

Limitation of ultrasound as a technique.

Lecture3

Use of equipment, for example, choice of transducers, equipment setting

Lecture4

Obstetrics and gynecology.

(including Patient preparation ,Positioning, Transducer used,)

Lecture5

Urinary system (kidneys ,bladder)

(including Patient preparation ,Positioning, Transducer used,)

Lecture 6

Blood vessels

(including Patient preparation ,Positioning, Transducer used,)

Lecture 7

The abdomen (pancreas, spleen, abdomen-miscellaneous)

(including Patient preparation ,Positioning, Transducer used,)

Lecture 8

The abdomen (biliary vascular systems: liver)

(including Patient preparation ,Positioning, Transducer used,)

Lecture 9

Head and Newborn

(including Patient preparation ,Positioning, Transducer used,)

Lecture 10

Ophthalmology

(including Patient preparation ,Positioning, Transducer used,)

Lecture 11

Thyroid, breasts, and testes

(including Patient preparation ,Positioning, Transducer used,)

Lecture 12

Cardiology, Echo cardiology color Doppler flow techniques

(including Patient preparation ,Positioning, Transducer used,)

Lecture 13.

Test No 1

Lecture 14

Demonstration in the Ultrasound Department .

Lecture 15

General Course Revision.

Class /Lab Schedule

2-hours lecturers

Computer Application

None.

Laboratory Project

None.

Contribution to Meeting the Professional Component

Radiologic Science 2- credit hours.

Relationship of course to programe Outcomes

This course will enable the student to apply the knowledge they gain in ultrasound physics in the investigation of diseases by using transducers , modes of application, cross sectional anatomy presentation and techniques of medical diagnostic ultrasound .

Prepared by

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Date of Preparation

June 2010