



# LINCOLN UNIVERSITY

## DI 140 – OB/GYN Scanning (Lab)

### Course Syllabus

Academic Term: FALL, 2017

Course Number: DI 140 Lab

Instructor: Dr.Jaimini Shah

MD.RDMS(AB,OB/GYN)

Contact:jshah@lincolnuca.edu,

Credit: 3 units = 90 hours of lab

Class Hours: Thursdays & Fridays, 12:30 - 3:20 p.m.

Office Hours: M & W 10 a.m. – 1 p.m., by appointment only. Lab 510-238-9744

#### **Course Description:**

Scanning protocols and practices for the ultrasound examination in obstetrics and gynecology.

(3 units) *Prerequisite: DI 130*

#### **Learning Objectives:**

- Understand ultrasound ergonomics
- Identify anatomy of the female pelvic in Obstetrics and Gynecology
- Learn basic anatomy images and protocols: Uterus, Ovaries, Fetus biometrics
- Acquire a broad understanding of B-mode, M-mode, Doppler, Color and Spectrum
- Recognize normal physiologic processes in female
- Differentiate between normal and abnormal sonographic findings
- Recognize sonographic normal fetal anatomy
- Describe physiology and pathology of the placenta and amnion
- Describe sonographic and fetal acquired, congenital and genetic diseases
- Demonstrate knowledge of presenting biometrics
- Prepare for externship

#### **Instructional Methods:**

- Live lecture / demonstration ultrasound protocols including measurements in class
- Laboratory hands-on training with protocol handouts and worksheets
- Real time imaging to locate, identify, measure biometrics, and recognize ultrasound images in female and fetal anatomy

#### **Ultrasound Hands-on Laboratory Examination:**

- During the final ultrasound hands-on examination, students will have to demonstrate understanding of information presented primarily during the demo, lectures and hands-on laboratory training, i.e. Protocols, Images, Anatomy, Biometrics and Complete exam time.
- Students need to be at the ultrasound lab, ready to start scanning at the exact time per scheduled.
- Arrive about 15 minutes prior to your scheduled exam time.
- If you are late for the scheduled exam time, your time CANNOT be changed and you will

not get a full hour! If you are late, you will only have the remaining time left in your hour.

- On exam days you may come to class, but it is not mandatory until your scheduled exam time.
- Only one time TEST will be given to students with a valid excuse: such as illness, family emergency, unforeseen heavy traffic or natural disaster.

**Attendance and Participation:**

- Students who are tardy, who arrive after roll is taken or leave before the end of class will receive only half-credit for attendance.
- **Students are not allowed to be more than 15 minutes late.**
- If you are late or absent, a valid excuse such as illness, family emergency, unforeseen heavy traffic or natural disaster is expected.
- **No requirements to make up any work missed as a result of an absence. However, it is your responsibility to obtain notes from other class members regarding the class session you missed.**

**Grading: %**

Lab	Performance of scanning protocols	20%
	Midterm	30%
	Project	10%
	Final Exam	30%
	Lab Attendance	10%
Total		100%

% Achieved	Grades
94-100	A
90-93	A-
87-89	B+
84-86	B
81-83	B-
78-80	C+
76-77	C
74-75	C-
72-73	D+
70-71	D
69≤	F

## **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 whoever 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.
- Always raise your hand to speak or to leave your seat, and wait for a response before speaking.
- **Disruptive behavior will not be tolerated**, including touching of other classmates or their belongings.
- Students engaging in disruptive behavior in class will be asked to leave and may be subject to other penalties if the behavior continues.
- No drinks, eating, sleeping or personal grooming is permitted during ultrasound laboratory classes.
- 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 lab 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, cell phone 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.

## **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 student 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 assignment failure to course failure.

**Spring Semester 2017 Schedule: DI 140 (Lab) THURSDAYS & FRIDAYS 12:30 to 3:20PM**

<b>Week #</b>	<b>Dates</b>	<b>Topics</b>
Week 1	08/24 -25 Thursday -Friday	Clinical Protocols, GYN: Uterus TA & EV
Week 2	08/31 Thursday-09/01	GYN: Uterus
Week 3	09/07-08	GYN: Endometrium / Ovaries / Adnexa
Week 4	09/14-15	GYN: Endometrium / Ovaries / Adnexa
Week 5	09/21-22	Clinical Protocols, OB 1st Trimester, Biometrics
Week 6	09/28-29	Clinical Protocols 2nd and 3rd Trimesters, Biometrics
Week 7	10/05-06	2nd Trimester (18-23 weeks) Anatomy survey
Week 8	10/12-13	2nd Trimester (18-23 weeks) Anatomy survey
Week 9	10/19 Thursday 10/20 Friday	Mid Term exam 2nd Trimester (18-23 weeks) Anatomy survey
Week 10	10/26-27	2nd and 3rd Trimesters, Biometrics
Week 11	11/02-03	2nd and 3rd Trimesters, Biometrics
Week 12	11/09 Thursday 11/10 Veterans day	3rd Trimester Biophysical profile
Week 13	11/16-17	3rd Trimester Fetal Growth and EFW
Week 14	11/23-24	Placenta and Cervix
Week 15	11/30-12/01	Amniotic fluid and Umbilical cord
Week 16	12/07-08	Final Exam

**Recommended self-study:**

Review anatomy location, patient's position, images techniques, biometrics, and pathologies.

Additional sources: Sonoworld.com, Ultrasoundpedia.com, Sonoaccess App.Fetus.net

Exam Prep Diagnostic Ultrasound: Sanders/Dolk/Miner.

ISBN-10: **0781717787**, ISBN-13: **978-0781717786**

Textbook of Diagnostic Sonography: vol.2 Sandra L. Hagen-Ansert, 7th Edition  
(2011). ISBN-10: **0323073018**, ISBN-13: **978-0323073011**

**Sonography Scanning Principles & Protocol Betty Bates  
Tempkin (ELSEVIER)**

SDMS: Society of Diagnostic Medical Sonography

AIUM: American Institute of Ultrasound in Medicine.

**Note:**

- 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.

- Lab weekly schedule will adjust to the volume and trimesters of volunteer patients.
- Lab session is very dependent on OB volunteers for walk-ins or schedule appointments. Your assistance in recruitment of OB volunteers is necessary to insure real-time practice and your skills development. Please schedule appointments if you have OB volunteers with the Lab assistance.
- Lab. Phone for appointments: (510) 238-9744.

### **Lab Grading:**

**\*Scanning performance:** Effective use of lab time, development of scanning skills, applying techniques, effective use of ultrasound machines controls, IE: TGC, Depth PRF, Freq. Transducers, and to improve images on each patient. No Cell Phones Allowed.

**\*Attendance:** Being punctual, participation and working during class time. Absences, late arrivals, non-use of class times, and early leaves will result in students' poor and/or failing grade.

**\* Mid Term, Final:** Exams will focus on protocols, annotations to anatomy images, quality of images, demonstrating proper use of the ultrasound machines in control adjustments to obtain best anatomy images, basic knowledge of anatomy location and recognition. Exams protocol to images must be completed within allowed time, no retest. Non-completion, poor behavior, disruption, requiring assistants or dishonesty will result in failing exam and course.

Syllabus updated: August 2017

**Appendix. Program and Institutional Learning Outcomes.**

<b>Institutional Learning Outcomes (ILOs)</b>	
<i>Graduates of the BS program of Lincoln University should be able to:</i>	
<b>1a</b>	Develop the habits and skills necessary for processing information based on intellectual commitment, and using these skills to guide behavior.
<b>2a</b>	Raise important questions and problems, and formulate them clearly and precisely in oral or written communication
<b>3a</b>	Act with dignity and follow the principles concerning the quality of life of all people, recognizing an obligation to protect fundamental human rights and to respect the diversity of all cultures.
<b>4a</b>	Focus on individual and organizational benefits; communicate to co-workers and company's leadership in facilitation of collaborative environment; to be honest and transparent with regard to their work, and to be respectful of the work of others.
<b>5a</b>	Display sincerity and integrity in all their actions, which should be based on reason and moral principles; to inspire others by showing mental and spiritual endurance
<b>6a</b>	Show creativity by thinking of new and better goals, ideas, and solutions to problems; to be resourceful problem solvers.
<b>7a</b>	Define and explain the boundaries, divisions, styles and practices of the field, and define and properly use the principal terms in the field

<b>Program Level Outcomes (PLOs)</b>	
<i>Students graduating our BS in Diagnostic Imaging program will be able to:</i>	
<b>1</b>	Develop and demonstrate knowledge in principles of UT, medical terminology, physiology, sonography, and echocardiography.
<b>2</b>	Demonstrate ability of accurate patient positioning techniques, and use of imaging technology
<b>3</b>	Adapt imaging procedures based on patient's needs and clinical limitations.
<b>4</b>	Practice effective oral and written communication skills in the clinical setting