



# LINCOLN UNIVERSITY

## DI 280 A – Practicum/Externship I

### Summer 2012 Course Syllabus

**Semester:** Summer 2012  
**Course Number:** DI 280 A  
**Course Title:** PRACTICUM/EXTERNSHIP I  
**Course Credit:** 3 units  
**Pre-Requisite:** Last course of the program

#### **COURSE DESCRIPTION**

Students will get clinical experience in Diagnostic Imaging covering a wide variety of technical procedures. (3 units) Prerequisites: Permission of the externship coordinator and the program director

#### **PREREQUISITES**

Permission of the externship coordinator and the program director.

- Ultrasound Abdominal And OB/GYN Concentrations: DI 110
- Echocardiography Concentration: DI 115

#### **COURSE OBJECTIVES AND STUDENT LEARNING OUTCOMES**

Upon satisfactory completion of this course, the student will be able to:

- be able to identify basic anatomy, physiology and pathology of the clinical body areas covered in this course.
- determine and analyze the efficacy of the appropriate sequences for the demonstration of basic pathologies that are commonly imaged using ultrasound based technology.
- demonstrate an ability to effectively and efficiently prepare and conduct a basic ultrasound examination in the clinical setting.
- be able to identify basic pathology as demonstrated on ultrasound machine, which relate to the body areas examined in this course.
- appraise their own performance of a clinical examination, and relate this in written and/or case study format.
- demonstrate effective team work in the clinical setting.
- solve basic imaging challenges as they pertain to the conduct of clinical examinations.

**COURSE CONTENT:** major topics to be covered by Ultrasound Modalities:

Ultrasound Abdominal and OB/GYN Concentrations:

- Abdominal Ultrasound
- Obstetrics & Gynecology
- Vascular Ultrasound

Echocardiography Concentration:

- Echocardiography
- Vascular Ultrasound

## **INSTRUCTIONAL METHODS:**

Instructional methods will include instructor lecture and in-class hands-on 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.

## **REQUIREMENTS**

### **EXTERNSHIP INSTRUCTIONS FOR DIAGNOSTIC IMAGING STUDENTS**

Please bring the following with you to the externship site:

- 1) Resume
- 2) Student ID card
- 3) Practical course attendance sheet
  - Please be on-time and wear scrubs
  - Cell phone use is not permitted during the externship hours
  - Do not interfere with your instructor's work
  - Complete 135 hours if you registered for one externship or 270 hours if you signed up for two

Upon the externship completion, please submit the following to Admission Officer:

- 1) Resume
- 2) Recommendation letter from your externship instructor
- 3) Signed by the instructor practical course attendance sheets
- 4) Essay #1 – describe externship experience, techniques learned and overall experience
- 5) Essay #2 – describe career objectives and future goals

## **EXTERNSHIP CONTRACT**

### **General conditions**

It is the policy of Prestige Medical Academy (PRESTIGE MEDICAL ACADEMY) to place students who have completed classroom and laboratory training in externship learning environment. The externship sites will be selected based on systematic, documented evaluation. The experience will include a contract for practical learning, demonstration of identified competencies, an on-site mentor periodic visits by **PRESTIGE MEDICAL ACADEMY** staff, and mutual evaluation by all participants in the externship (student, Extern site, and PRESTIGE MEDICAL ACADEMY).

### General conditions

- To commit to the externship process and follow its requirements;
- To conduct my behavior in a manner consistent with effective and productive
- Workplace activities;
- To treat the externship site staff with personal and professional respect;
- To respond to directions efficiently;
- To ask question of externship site staff in order to clarify issues which may arise and to enhance the classroom and laboratory training received at **PRESTIGE MEDICAL ACADEMY**.

### GRADING

Practicum/Externship of work experience with evaluation by instructor

Criteria of Grading	%
Attendance	10%
Personal appearance	10%
Quality of work	10%
Motivation attitude	10%
Interpersonal skills	10%
Communicational skills	10%
Writing preliminary report	20%
Performing ultrasound protocols	20%
<b>Total</b>	<b>100%</b>

A	Excellent	100-90%
B	Good	89- 80%
C	Average	79-70
D	Poor	69-60
F	Fail	59% and below

### COURSE OUTLINES BY ULTRASOUND CONCENTRATIONS

#### ABDOMINAL ULTRASOUND

- Perform basic Abdominal organs examination in B- scan, Color and Power Doppler modes;
- Select the proper transducer for the examination to be performed;
- Scan in transverse, sagittal, and oblique position abdominal organs: the Liver, Gallbladder, Pancreas, Kidneys, Adrenal glands, Urine ladder, Prostate (transabdominal) and Thyroid glands;
- Perform distance and volume measurements of abdominal organs;
- Perform basic description and writing preliminary report;
- Demonstrate the area of interest by utilizing correct scanning planes and paths.
- Adjust gain controls for optimum display.
- Perform the examination using the correct scan planes and scan paths. Identify pathological conditions commonly demonstrated on this type of study.

#### OBSTETRICS & GYNECOLOGY ULTRASOUND

- Demonstrate the basic skills by transabdominal ultrasound examination of pelvic organs: uterus, ovaries, cervix, adnexa and blood vessels;

- Demonstrate recognition of the gravid uterus, superficial structures, and pelvic blood vessel routinely examined in ultrasound labs;
- Record and process for display the images necessary for ultrasound protocol;
- Select the proper transducer for the examination to be performed;
- Demonstrate the area of interest by utilizing correct scanning planes and paths;
- Adjust gain controls for optimum display;
- Demonstrate professionalism and ethical behavior in a clinical setting;
- Perform the examination using the correct scan planes and scan paths. Identify pathological conditions commonly demonstrated on this type of study.

### **VASCULAR ULTRASOUND**

- Perform ultrasound vascular examination in B- scan, Color, Spectral and Power Doppler modes;
- Demonstrate knowledge in sectional anatomy and physiology peripheral and abdominal blood vessels;
- Find peripheral arteries, veins, and abdominal blood vessels;
- Demonstrate vascular hemodynamic in Spectral Doppler;
- Perform blood vessels lumen and depth measurements;
- Select the proper transducer for the examination to be performed;
- Record and process for display the images necessary for ultrasound protocol;
- Demonstrate the area of interest by utilizing correct scanning planes and paths;
- Adjust gain controls for optimum display;
- Demonstrate professionalism and ethical behavior in a clinical setting;
- Perform the examination using the correct scan planes and scan paths. Identify pathological conditions commonly demonstrated on this type of study.

### **ECHOCARDIOGRAPHY**

- Find views: PLAX, PSAX, Apical 4, Apical 2, Apical 3 and Apical 5 and subcostal.
- Select the proper transducer for the examination to be performed.
- Utilize correct anatomical landmarks and scanning references when performing and labeling a study.
- Demonstrate the area of interest by utilizing correct scanning planes and paths.
- Adjust gain controls for optimum display.
- Demonstrate professionalism and ethical behavior in a clinical setting.
- Perform the examination using the correct scan planes and scan paths. Identify pathological conditions commonly demonstrated on this type of study.

Revised: 5/30/2012