



# LINCOLN UNIVERSITY

## DI 280 A – Practicum / Externship I

### Summer 2014 Course Syllabus

**Course Number:** DI 280A

**Course Title:** Practicum / Externship I

**Course Credit:** 3 units = 135 practicum hours

#### **COURSE DESCRIPTION**

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

#### **PREREQUISITE**

Permission of the externship coordinator and the program director

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

Upon satisfactory completion of this course, the student will 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.
- 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.

## **INSTRUCTIONAL METHODS:**

The course will be conducted in the form of practicum / externship at an off-campus Diagnostic Imaging facility. The instructor will be available to help students with all tutorials and other assignments.

## **REQUIREMENTS:**

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

- 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.

Please bring the following with you to the externship site:

1. Resume
2. Student ID card
3. Proof of the liability insurance
4. Practical course attendance sheet

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

1. The "Agreement for Internship/Externship" form, **filled out** and **signed by the student, work supervisor, and the University advisor** as instructed in the form
2. Updated resume
3. Student Performance Evaluation sheet filled out by the University advisor
4. Recommendation letter from the University advisor
5. Externship course attendance sheets which indicate the total externship hours completed, **signed by the University advisor**
6. Externship clinical log with the number of procedures observed and performed
7. Essay #1: describing externship experience, techniques learned, and overall experience
8. Essay #2: describing career objectives and future goals

Lack of an externship package or an incomplete externship package in the student file one week after the end of an externship term will result in an incomplete grade ("I") in the student's records. To change the grade, the student has to submit a *Petition for Change of Grade* form and go through the change of grade process described in the university academic catalog.

Each of the externship courses DI 280A and DI 280B has to be completed in the maximum of one year. If the full required package mentioned above is not submitted to the University's Admissions and Records Office within one year of the course registration, a grade "NC" (no credit) will be recorded, and the student will have to re-register for the same externship course with 3 units.

**EXTERNSHIP CONTRACT:**

It is the policy of the university 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 competency, periodic on-site visits by the university staff, and mutual evaluation by all participants in the externship (students, the externship site, and the university).

General conditions

- To commit to the externship process and follow its requirements;
- To conduct the externship 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 questions of the externship site staff in order to clarify issues which may arise;
- To enhance the student's knowledge and skills acquired during the Diagnostic Imaging program at the university.

**GRADING:**

Practicum/Externship of work experience will be evaluated by the instructor. A grade of **CR or NC only** will be given.

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

# **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.

### **Note:**

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

Revised: April 18, 2014