

# DMS 53A: DIAGNOSTIC MEDICAL SONOGRAPHY I

## Foothill College Course Outline of Record

| Heading                            | Value   |
|------------------------------------|---|
| <b>Units:</b>                      | 2   |
| <b>Hours:</b>                      | 2 lecture, 1 laboratory per week (36 total per quarter) |
| <b>Prerequisite:</b>               | DMS 50A.  |
| <b>Degree &amp; Credit Status:</b> | Degree-Applicable Credit Course                         |
| <b>Foothill GE:</b>                | Non-GE  |
| <b>Transferable:</b>               | CSU   |
| <b>Grade Type:</b>                 | Letter Grade Only                                       |
| <b>Repeatability:</b>              | Not Repeatable  |

## Student Learning Outcomes

- Recognize normal and abnormal anatomical structures.
- Describe related pathology, lab tests, and clinical symptoms

## Description

Anatomy and physiology related to the major abdominal organs and major abdominal vessels. Assessment including physical, clinical symptoms, and laboratory findings. Related pathology and its sonographic appearance involving these structures. Scanning protocols, technical factors and image quality. One hour per week will be spent in completing online exams and working on patient case studies. Intended for students in the Diagnostic Medical Sonography Program; enrollment is limited to students accepted in the program.

## Course Objectives

The student will be able to:

- recognize in detail the anatomy and physiology of the major abdominal and vascular structures.
- describe the physiology of the same major abdominal and vascular structures.
- describe related pathology, lab tests, and clinical symptoms.
- discuss ethical dilemmas for health care personnel when in conflict with cultural, gender, and age populations.

## Course Content

A. Vascular system

1. Recognize anatomy in multiple planes and projections
2. Correlate lab tests
3. Obtain clinical symptoms and information
4. Acquisition of quality sonographic images
5. Recognize features of pathology per established methods
6. Interpret pathology from sonographic images
7. Recite standards of protocol
8. Understand the physiology of the vascular system
9. Lecture of this topic followed by lab exercise

B. Liver

1. Recognize anatomy in multiple planes and projections
2. Correlate lab tests
3. Obtain clinical symptoms and information
4. Acquisition of quality sonographic images

5. Recognize features of pathology per established methods
  6. Interpret pathology from sonographic images
  7. Recite standards of protocol
  8. Understand the physiology of the liver
  9. Lecture of this topic followed by lab exercise
- C. Gallbladder and biliary system
1. Recognize anatomy in multiple planes and projections
  2. Correlate lab tests
  3. Obtain clinical symptoms and information
  4. Acquisition of quality sonographic images
  5. Recognize features of pathology per established methods
  6. Interpret pathology from sonographic images
  7. Recite standards of protocol
  8. Understand the physiology of the gallbladder and biliary system
  9. Lecture of this topic followed by lab exercise
- D. Pancreas
1. Recognize anatomy in multiple planes and projections
  2. Correlate lab tests
  3. Obtain clinical symptoms and information
  4. Acquisition of quality sonographic images
  5. Recognize features of pathology per established methods
  6. Interpret pathology from sonographic images
  7. Recite standards of protocol
  8. Understand the physiology of the pancreas
  9. Lecture of this topic followed by lab exercise
- E. Ethics and the dilemmas for health care personnel
1. Conflicts and problem solving with various cultural groups
  2. Conflict and problem solving with gender and sexual orientation
  3. Conflict and problem solving involving various age groups

## Lab Content

A. The students will participate in online assessments, testing and case analysis.

## Special Facilities and/or Equipment

A. DVD/TV, computer, monitor, viewboxes.

B. When taught via Foothill Global Access, on-going access to computer with email software and hardware; email address.

## Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

- Demonstration of mastery of lecture material
- Written quizzes
- Patient case studies
- Midterms
- Comprehensive final exam

## Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

- Lecture presentations
- Classroom discussions
- CANVAS internet skills

## **Representative Text(s) and Other Materials**

Kawamura, D., and T. Nolan. Abdomen and Superficial Structure. 4th ed. Philadelphia, PA: Wolters Kluwer, MD, 2018.

Kawamura, D., and B. Lunsford. A Guide to Clinical Practice, Abdomen and Superficial Structure: Workbook. 4th ed. Philadelphia, PA: Wolters Kluwer, MD, 2018.

## **Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments**

A. Weekly reading assignments from texts per the syllabus - estimated at 30 pages per week.

B. Online hours are spent conducting internet research and practicing Canvas skills. The student will be held responsible for one hour per week of Canvas internet research.

## **Discipline(s)**

Diagnostic Medical Technology