

# DMS 53A: DIAGNOSTIC MEDICAL SONOGRAPHY I

## Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2025
Units:	2
Hours:	2 lecture, 1 laboratory per week (36 total per quarter)
Prerequisite:	DMS 50A.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade Only
Repeatability:	Not Repeatable

## Student Learning Outcomes

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

## Description

Introduction to anatomy and physiology related to abdominal organs and abdominal vasculature. Includes normal abdominal anatomy and pathology, clinical symptoms, and laboratory tests related to normal and abnormal abdominal findings. 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:

1. Describe the anatomy and physiology of abdominal vascular structures
2. Describe the anatomy and physiology of major abdominal organs
3. Differentiate between normal anatomy versus pathological findings of the abdominal and vascular structures
4. Describe clinical symptoms related to normal and abnormal abdominal findings
5. Describe laboratory tests and results related to normal and abnormal abdominal findings

## Course Content

1. Anatomy of abdominal vascular system in multiple planes and projections
  - a. Aorta
  - b. Inferior vena cava (IVC)
  - c. Portal venous system
2. Physiology of abdominal vascular system
  - a. Aorta
  - b. Inferior vena cava (IVC)
  - c. Portal venous system
  - d. Pathophysiology of aorta, IVC, portal venous system
3. Anatomy of abdominal organs in multiple planes and projections

- a. Liver
  - b. Pancreas
  - c. Gallbladder and biliary system
  - d. Kidneys
4. Normal and pathophysiology of abdominal organs
    - a. Liver
    - b. Pancreas
    - c. Gallbladder and biliary system
    - d. Kidneys
  5. Presenting signs and symptoms of abnormal abdominal conditions
  6. Laboratory tests related to the abdomen

## Lab Content

1. Assessments of normal and abnormal abdominal imaging
2. Case analyses

## Special Facilities and/or Equipment

DVD/TV, computer, monitor.

## Method(s) of Evaluation

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

Assessments  
Patient case studies

## Method(s) of Instruction

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

Lecture presentations  
Classroom discussions

## Representative Text(s) and Other Materials

Kawamura, D., and T. Nolan. Abdomen and Superficial Structure, 5th ed.. 2021.

Kawamura, D., and B. Lunsford. A Guide to Clinical Practice, Abdomen and Superficial Structure: Workbook, 5th ed.. 2021.

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

1. Weekly reading assignments
2. Research assignments

## Discipline(s)

Diagnostic Medical Technology