

DMS 80A: ADVANCED SONOGRAPHIC PRINCIPLES

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2025
Units:	4
Hours:	3 lecture, 3 laboratory per week (72 total per quarter)
Prerequisite:	DMS 60D.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade Only
Repeatability:	Not Repeatable

Student Learning Outcomes

- Employ interpretative and analytical skills with an emphasis on advanced techniques
- Prepare to pass the ARDMS board exams.

Description

This is a comprehensive course, intended for the review of normal and abnormal anatomical structures in order to prepare the students for abdomen-extended, obstetrics, and gynecology ARDMS board exams. 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. Identify human anatomy, embryological development, physiology, and pathophysiology in the abdomen, vascular system, female and male reproductive tract, and obstetrics
2. Identify normal measurements of anatomy and their structures
3. Utilize analytical skills with an emphasis on advanced techniques
4. Identify physical principals, control functions of ultrasound equipment, and sonographic image acquisition
5. Discuss ethical dilemmas for health care personnel when in conflict with cultural interests
6. Define acoustic powers and intensity with regards to national standards and current legislation
7. Discuss patient care techniques and ethical dilemmas for the health care professional

Course Content

1. Human anatomy, physiology, embryology, and pathophysiology of the abdomen, vascular system, male and female reproductive system, and obstetrics
2. Measurements
3. Image acquisition and nomograms
4. Interpretative and analytical skills with an emphasis on advanced techniques

5. Sonographic equipment and the laws of physical principles
6. Acoustic powers and intensity with regards to national standards and current legislation
 - a. Advanced sonographic techniques, including analytical skills conforming to national standards of practice
7. Patient care techniques and ethical dilemmas for the health care professional

Lab Content

Completion of multiple mock ARDMS board examinations modeled on national credentialing exams.

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:

- Quizzes
- Mock ARDMS registry exams

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*. 2021.

Stephenson, S., and J. Dmitrieva. *Diagnostic Medical Sonography: Obstetrics and Gynecology*. 2022.

Penny, Steven M.. *Examination Review for Ultrasound: Abdomen and Obstetrics & Gynecology*. 2022.

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

1. Registry prep book for exam preparation.
2. Online registry prep examinations.

Discipline(s)

Diagnostic Medical Technology