

DMS 56B: ADVANCED APPLICATIONS OF VASCULAR TECHNOLOGY

Foothill College Course Outline of Record

Heading	Value
Units:	2
Hours:	2 lecture per week (24 total per quarter)
Prerequisite:	DMS 56A.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade Only
Repeatability:	Not Repeatable

Student Learning Outcomes

- Describe imaging and non-imaging techniques for arterial, venous, and cerebrovascular studies.
- Interpret doppler information as it relates to normal and abnormal flow states.

Description

A continuation of DMS 56A for the advanced principles and theory of noninvasive vascular technology. Comprehensive study of arterial and venous applications, including peripheral arterial, abdominal vascular, and assessment of the reproductive tract. Designed to help prepare individuals for the National Board for credentialing as a Registered Vascular Technologist. 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:

- describe imaging and non-imaging techniques for arterial, venous, including peripheral arterial, abdominal vascular, and assessment of the reproductive tract.
- list at least three pathological conditions for each application explaining the effect on blood flow for each system.
- explain normal and abnormal hemodynamics.
- interpret doppler information as it relates to normal and abnormal flow states.
- identify risk factors for vascular disease.

Course Content

- Apply the knowledge of anatomy to sonographic imaging and non-imaging techniques
 - Vessel routes
 - Vascular variations and collateral flow
- Arterial and venous testing
 - Patient history
 - Patient risk factors
 - Cite correlating disease types in detail the pathological conditions for each sonographic application

- Interview for patient history and write findings using medical nomenclature
- Apply the understanding from the patient's physical examinations
- Noninvasive and invasive testing correlation
 - Arterial and venous disease, including therapeutic Intervention
 - Medical intervention
 - Surgical intervention
 - Image quality recognition for interpretation, presentation, and technical quality
 - Assessing and obtaining pertinent clinical information
 - Components of the clinical report
 - Assessing relevant from non-relevant data
 - Produce quality studies for the physician to interpret
 - Contrast diagnostic quality of examinations from suboptimal studies
 - Artifacts - determine useful artifacts from other types of artifacts
 - The risk factors for vascular disease

Lab Content

Not applicable.

Special Facilities and/or Equipment

- TV monitor, internet access, computer, viewboxes, DVDs.

Method(s) of Evaluation

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

- Written quizzes
- Midterm exams
- Comprehensive final

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

Kupinski, Ann Marie. [Diagnostic Medical Sonography: The Vascular System](#). 2nd ed. Baltimore, MD: Lippincott Williams, & Wilkins, 2018.
 Garbani, N., R. Kendoll, and A. Kupinski. [Workbook for Diagnostic Medical Sonography: A Guide to the Vascular System](#). 2nd ed. Baltimore, MD: Lippincott Williams, & Wilkins, 2018.

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

- Weekly reading of texts as per syllabus - estimated as 20 pages per week.
- Complete written sections from the syllabus.

Discipline(s)

Diagnostic Medical Technology