DMS A165: INTRODUCTION TO SCANNING PRACTICE

Item	Value
Curriculum Committee Approval Date	03/13/2019
Top Code	122700 - Diagnostic Medical Sonography
Units	3 Total Units
Hours	90 Total Hours (Lecture Hours 36; Lab Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	Yes
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

Introduction to sonographic scanning protocol as applied to clinical practice. Course includes environment of ultrasound department, emphasis on professionalism, student behavior, medico-legal aspects, and humanistic approach to patients. PREREQUISITE: DMS A123 and DMS A150. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Perform renal, abdominal, pelvic and thyroid ultrasound exams in a laboratory setting and identify normal Sonographic anatomy.

Course Objectives

- 1. Perform real time examinations at entry level competency.
- 2. Identify normal anatomy of abdomen, pelvis and thyroid.
- 3. Manipulate Sonographic equipment controls.
- 4. Analyze and utilize scan procedure and protocol.
- 5. Perform basic Doppler, pelvic and abdominal scans with supervision.
- 6. Effectively communicate with patients and their families without revealing diagnostic information.
- 7. Discuss the "Patients Bill of Rights".
- 8. Discuss Health Insurance Portability and Accountability Act (HIPAA).
- 9. Demonstrate knowledge relative to computers in ultrasound relative to patient care.
- 10. Recognize and discuss normal and abnormal Sonographic studies.
- 11. Perform renal exams within 30 minutes, and perform abdominal exams within 45 minutes by the end of the semester.

Lecture Content

History of Ultrasound Medical Applications Evolution of Ultrasound Imaging Bistable Static Scanning Real-Time 3D Imaging Professional Organizations Society of Diagnostic Medical Sonography (SDMS) American Institute of Ultrasound in Medicine (AIUM) Society of Vascular Technologists (SVT) Accrediting Organizations American Registry of Diagnostic Medical Sonography (ARDMS) The Sonographer as a Student Appropriate Behavior in Clinical Appearance and Attitude in Clinical Discuss Clinical Notebook Complete discussion of paperwork Documentation of patient studies Clinical Educators role Sonographer Safety in a Patient Care Setting Correct ergonomics Sonographers injuries Sonographers stress Health Insurance Portability and Accountability Act (HIPAA) Federal law Respecting patient health information Patient-Sonographer Interaction Clinical Care Patient safety during sonographic exam Patient comfort during sonographic exam Patient procedures under sonographic guidance Patient Positions in Sonographic Imaging Supine Left lateral decubitus Right lateral decubitus Prone Upright Trendelenburg and reverse Patient Prep – Exam Preparation NPO Full bladder Type of exam - transducer Inpatient Exam order History (HX) Patients name band Outpatient Prescription (RX) with order History Communica tion and Critical Thinking Verbal Communication Nonverbal Communication Critical Thinking in sonographic imaging Medico-Legal Aspects of Sonography Standard of Care Patients Rights (Bill of Rights) Informed Consent Professionally responsible in the medical environment Learn Scan Protocols - Laboratory Types of exams Renal Abdomen Pelvis Thyroid Scan, image, measure Common diseases More images or views Renal study . gallstones seen Limited exam not sufficient Transabdominal pelvis and/or transvaginal exam Review patient images from any prior exams including other imaging exams Normal Abnormal

Lab Content

Students will learn sonographic anatomy in the lab. The students will learn to scan renal, abdominal, pelvic and thyroid ultrasound exams in the lab.

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- Lab (04)
- DE Live Online Lab (04S)

Instructional Techniques

PowerPoint lectures with application in laboratory, printed handouts and class discussion.

Reading Assignments

Students will read 4.5 hours weekly from an assigned text.

Writing Assignments

They will assemble a laboratory sketchbook made from scans they have acquired from laboratory assignments and their drawing of anatomy.

Out-of-class Assignments

Reading as described and lab project.

Demonstration of Critical Thinking

Objective examinations, demonstration of critical thinking through class participation and class discussions.

Required Writing, Problem Solving, Skills Demonstration

They will assemble a laboratory sketchbook made from scans they have acquired from laboratory assignments and their drawings of anatomy.

Eligible Disciplines

Diagnostic medical technology-diagnostic medical sonography, neurodiagnosti...: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Kawamura, D.M.. Diagnostic Medical Sonography, Abdomen and Superficial Structures, Third ed. Philadelphia: Lippincott Williams Wilkins, 2018