Course Number and Title: DMS 235 Pediatric Sonography

Campus Location:
Georgetown

Effective Date:
2018-51

Prerequisite:
DMS 215, DMS 231

Co-Requisites:
none

Course Credits and Hours:
1.00 credits
1.00 lecture hours/week
0.00 lab hours/week

Course Description:
This course provides basic information on some of the more common applications of diagnostic medical sonography in the neonate, infant, and young pediatric patient. Topics include instrumentation and scanning techniques of the brain, abdomen, gastrointestinal and genitourinary tracts, and infant hip.

Required Text(s):
Obtain current textbook information by viewing the campus bookstore - https://www.dtcc.edu/bookstores online or visit a campus bookstore. Check your course schedule for the course number and section.

Additional Materials:
None

Schedule Type:
Classroom Course

Disclaimer:
None

Core Course Performance Objectives (CCPOs):

1. Discuss the efficacy of ultrasound in the examination of the neonate, infant, and pediatric patient. (CCC 1, 2, 3, 4, 5; PGC 4)
2. Explain the scanning techniques and technical considerations involved in the neonate, infant, and pediatric populations. (CCC 1, 2, 3, 4, 5; PGC 2, 4)
3. Discuss the normal anatomy and anatomic variants relating to the abdominal and pelvic viscera of the neonate, infant, and pediatric patients. (CCC 1, 4, 5; PGC 2)
4. Differentiate the normal anatomy from pathoanatomy of the neonatal brain. (CCC 1, 2, 4, 5; PGC 2, 3, 4)
5. Describe the development, anatomy and pathoanatomy, and sonographic examination of the infant hip. (CCC 1, 2, 5; PGC 2, 3, 4)

See Core Curriculum Competencies and Program Graduate Competencies at the end of the syllabus. CCPOs are linked to every competency they develop.

Measurable Performance Objectives (MPOs):
Upon completion of this course, the student will:

1. Discuss the efficacy of ultrasound in the examination of the neonate, infant, and pediatric patient.
    1. Describe the advantages of ultrasound as an imaging modality in targeted populations.
    2. Discuss the limitations of ultrasound as an imaging modality in targeted populations.
2. Explain the scanning techniques and technical considerations involved in the neonate, infant, and pediatric populations.
    1. Describe the instrumentation, scan planes, and standard projections used in neonate, infant, and pediatric studies.
    2. Discuss and examine the normal/abnormal sonographic appearance in studies of the neonate, infant, and pediatric patient.
    3. Describe the normal/abnormal sonographic appearances of the neonatal brain, spinal cord, and hip.
3. Discuss the normal anatomy and anatomic variants relating to the abdominal and pelvic viscera of the neonate, infant, and pediatric patients.
    1. Discuss the normal sonographic appearance of abdominal and pelvic viscera in the neonate, infant, and young pediatric patients.
    2. Describe the anatomic variants that may be associated with abdominal and pelvic ultrasound in targeted populations.
4. Differentiate the normal anatomy from pathoanatomy of the neonatal brain.
    1. Identify the normal sonographic cross-sectional appearances of the neonatal brain in sagittal, coronal, and axial planes.
    2. Discuss intracranial hemorrhage (ICH) and the classification of grades.
    3. Explain the pathogenesis of hydrocephalus.
5. Describe the development, anatomy and pathoanatomy, and sonographic examination of the infant hip.
    1. Explain the development and anatomy of the infant hip.
    2. Discuss the morphologic changes encountered in eccentric hips.
    3. Identify the standard sequential protocol of the hip sonogram.

Evaluation Criteria/Policies:
Students must demonstrate proficiency on all CCPOs at a minimal 75 percent level to successfully complete the course. The grade will be determined using the Delaware Tech grading system:

92	–	100	=	A
83	–	91	=	B
75	–	82	=	C
0	–	74	=	F

Students should refer to the Student Handbook - https://www.dtcc.edu/handbook for information on the Academic Standing Policy, the Academic Integrity Policy, Student Rights and Responsibilities, and other policies relevant to their academic progress.

Core Curriculum Competencies (CCCs are the competencies every graduate will develop):

1. Apply clear and effective communication skills.
2. Use critical thinking to solve problems.
3. Collaborate to achieve a common goal.
4. Demonstrate professional and ethical conduct.
5. Use information literacy for effective vocational and/or academic research.
6. Apply quantitative reasoning and/or scientific inquiry to solve practical problems.

Program Graduate Competencies (PGCs are the competencies every graduate will develop specific to his or her major):

1. Graduates will demonstrate clinical competence by performing a full range of diagnostic medical sonography procedures on all patient populations pertaining to their learning concentration.
2. Graduates will professionally utilize verbal, nonverbal, and written communication skills in patient care, procedure intervention, and professional relationships.
3. Graduates will demonstrate professional growth and development by acting in a professional and ethical manner and comply with the professional scope of practice.
4. Graduates will integrate critical thinking and problem solving skills as expected of a healthcare professional.

Disabilities Support Statement:
The College is committed to providing reasonable accommodations for students with disabilities. Students are encouraged to schedule an appointment with the campus Disabilities Support Counselor to request an accommodation needed due to a disability. A listing of campus Disabilities Support Counselors and contact information can be found at the disabilities services - https://www.dtcc.edu/disabilitysupport web page or visit the campus Advising Center.