

Course Number and Title: DMS 202 Clinical Internship II

Campus Location:

Wilmington

Effective Date:

2022-51

Prerequisite:

DMS 201

Co-Requisites:

none

Course Credits and Hours:

7.00 credits

1.00 lecture hours/week

30.00 lab hours/week

Course Description:

This course, a continuation of DMS 201 Clinical Internship I, provides an expanded clinical environment with emphasis on the comfort and safety of the patient while maintaining quality performance in diagnostic medical sonographic procedures.

Required Text(s):

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

Additional Materials:

Sonography Student Manual

Schedule Type:

Classroom Course

Disclaimer:

None

Core Course Performance Objectives (CCPOs):

1. Demonstrate continuing competencies as outlined in the DMS 201 Clinical Internship I objectives. (CCC 1, 2, 3, 4, 5, 6; PGC 1, 2, 3, 4)
2. Operate with proficiency the ultrasound instrumentation and other equipment necessary for sonographic procedures. (CCC 1, 2, 5, 6; PGC 1, 2, 4)
3. Demonstrate proper pre-examination preparation and acquisition of pertinent patient medical information. (CCC 1, 2, 5, 6; PGC 1, 2, 4)
4. Demonstrate and perform diagnostic medical sonographic procedures within the plan of care and scope of responsibility. (CCC 1, 2, 3, 4, 5, 6; PGC 1, 2, 3, 4)
5. Perform with competency sonographic examinations of the abdomen, superficial structures, and the gravid and nongravid pelvis using real-time ultrasound equipment. (CCC 1, 2, 3, 4, 5, 6; PGC 1, 2, 3, 4)
6. Perform with competency sonographic examination of extremity arteries, extremity veins, cerebrovasculature, and abdominal Doppler using real-time ultrasound or physiological equipment. (CCC 1, 2, 3, 4, 5, 6; PGC 1, 2, 3, 4)
7. Integrate technical knowledge learned from previous technology courses to solve mock board exam questions. (CCC 1, 2, 5, 6; PGC 1, 2, 3, 4)
8. Prepare a pathology research presentation independently to accurately form a sonographer's impression of the pathology. (CCC 1, 2, 3, 4, 5, 6; PGC 1, 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. Demonstrate continuing competencies as outlined in the DMS 201 Clinical Internship I objectives.
 1. Demonstrate continuing competency as outlined in the DMS 201 Clinical Internship I objectives independently.
 2. Demonstrate compliance with college, program, and clinical affiliates' policies, including maintaining attendance records and clinical log records.
 3. Demonstrate professional behaviors in all matters relating to patient, family, and other healthcare members.
2. Operate with proficiency the ultrasound instrumentation and other equipment necessary for sonographic procedures.
 1. Explain the function of the basic, generic instrumentation controls on a duplex ultrasound system and other equipment necessary for sonographic procedures.
 2. Select the appropriate transducer according to the procedure requested and the patient body habitus.
 3. Demonstrate the correct usage of the controls for optimal 2D, color, and Doppler imaging.
 4. Modify the controls to enhance the image quality.
 5. Demonstrate usage of the system components for documentation of the ultrasound study.
 6. Select correct plethysmography when available, demonstrate operational knowledge, and practice proper procedures.
3. Demonstrate proper pre-examination preparation and acquisition of pertinent patient medical information.
 1. Demonstrate pre-examination preparation by selecting correct instrumentation, obtaining optimum machine setting, obtaining patient history and identifying clinical signs and symptoms, using proper patient positioning, and safely assisting the patient for the procedure.
 2. Properly prepare and maintain the patient area within the clinical site.
4. Demonstrate and perform diagnostic medical sonographic procedures within the plan of care and scope of responsibility.
 1. Select pertinent information from the medical chart and the patient report for documentation.
 2. Identify and document significant clinical information and historical facts from the patient and the medical records that may impact on the diagnostic information.
 3. Explain and integrate exam protocols and criteria necessary for interpreting the diagnostic medical sonographic study.
 4. Explain problem states, and clearly explain known solutions to problems.
5. Perform with competency sonographic examinations of the abdomen, superficial structures, and the gravid and nongravid pelvis using real-time ultrasound equipment.
 1. Select appropriate transducer and instrument settings appropriate to the requested part and body habitus.
 2. Perform required competency as outlined in the DMS clinical competency requirements to include sonographic examinations of the abdomen, superficial structures, and the gravid and nongravid pelvis.
 3. Explain and document properly annotated diagnostic images of the pertinent normal and abnormal anatomy in all the appropriate scan planes of the abdomen and superficial structures, including pancreas, liver, gall bladder/biliary system, spleen, great vessels, kidneys/urinary tract, thyroid, and breasts.
 4. Explain and document properly annotated diagnostic images and measurements of the pertinent normal and abnormal anatomy in all the appropriate scan planes of the gravid and nongravid pelvis, including transabdominal and transvaginal scanning of uterus; ovaries; adnexal structures; and first, second, and third trimester pregnancies.
 5. Explain and document observation of and/or participation in scanning the scrotum/testicles and prostate as well as participation in invasive procedures such as aspirations and biopsies.
6. Perform with competency sonographic examination of extremity arteries, extremity veins, cerebrovasculature, and abdominal Doppler using real-time ultrasound or physiological equipment.
 1. Select appropriate transducer and instrument settings appropriate to the requested part and body habitus.
 2. Perform required competency as outlined in the DMS clinical competency requirements to include upper and lower extremity arterial exam of pulse volume recording/segmental limb pressure (PVR/SLP), upper and lower extremity venous duplex, upper and lower extremity vein mapping, carotid duplex exam, transcranial Doppler, and abdominal aorta Doppler exam using appropriate records, patient information, and clinical skills.
 3. Discuss common protocol and document observation and/or participation in the following procedures:
 1. Extremity arterial duplex including bypass graft or hemodialysis access
 2. Venous insufficiency/valvular incompetence test
 3. Abdominal Doppler, including hepatic-portal, mesenteric arteries, renal arteries, and abdominal graft/shunt
7. Integrate technical knowledge learned from previous technology courses to solve mock board exam questions.
 1. Retrieve and integrate the following topics related to general ultrasound technology to solve mock board exam questions related to:
 1. Normal versus pathological conditions of the liver
 2. Normal versus pathological conditions of the kidney
 3. Sonographic evaluation of the appendix
 4. Normal versus pathological conditions of the scrotum
 5. Prostate ultrasound exam
 6. Gynecological sonography
 7. Obstetrical sonography
8. Prepare a pathology research presentation independently to accurately form a sonographer's impression of the pathology.
 1. Describe a clinical pathology pertaining to technology by retrieving, organizing, analyzing, and interpreting data.
 2. Discuss disease process and complications of the pathology including origin, signs and symptoms, risk factors, ultrasound involvement, and treatment.
 3. Create a PowerPoint presentation.
 4. Prepare and present orally in a professional manner.

Evaluation Criteria/Policies:

The grade will be determined using the Delaware Tech grading system:

90	-	100	=	A
80	-	89	=	B
70	-	79	=	C
0	-	69	=	F

Students should refer to the [Student Handbook - https://www.dtcc.edu/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.

Final Course Grade:

Calculated using the following weighted average

Evaluation Measure	Percentage of final grade
Competencies (summative)	30 %
Midterm Appraisal (formative)	10 %
Final Evaluation (summative)	30 %
Review tests (8-10 tests) (formative)	20 %
Pathology Research Presentation (summative)	10%
TOTAL	100%

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. Perform competently a full range of diagnostic medical sonographic procedures pertaining to their learning concentration.
2. Utilize professional verbal, nonverbal, and written communication skills in patient care, procedure intervention, and professional relationships.
3. Act in a professional and ethical manner and comply with professional scope of practice.
4. 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](https://www.dtcc.edu/disabilitysupport) web page or visit the campus Advising Center.