

## Course Number and Title: DMS 122 Abdominal Sonography II

**Campus Location:**

Wilmington

**Effective Date:**

2021-51

**Prerequisite:**

DMS 121, SSC 100 or concurrent

**Co-Requisites:**

none

**Course Credits and Hours:**

2.00 credits

2.00 lecture hours/week

1.00 lab hours/week

**Course Description:**

This course is a continuation of Abdominal Sonography I appropriate to the study of diagnostic medical sonography, covering cross-sectional anatomy, physiology and pathophysiology of the abdomen, and superficial structures.

**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:**

DMS Program Student Manual

CCHS Non-Employee Orientation Manual

Allied Health/Science Department Policy Manual

Instructor Handouts

**Schedule Type:**

Classroom Course

**Disclaimer:**

None

**Core Course Performance Objectives (CCPOs):**

1. Integrate previous knowledge of anatomy and physiology to examine the cross-sectional anatomy of the abdominal viscera and superficial structures. (CCC 1, 2, 5, 6; PGC 4)
2. Explain the principles of scanning techniques in examining the abdominal viscera, superficial structures, and small parts. (CCC 1, 2, 3, 4, 5, 6; PGC 1, 2, 3, 4)
3. Integrate previous knowledge of anatomy and physiology to identify sonographically the anatomy and physiology of the abdominal viscera, superficial structures, small parts, and vasculature. (CCC 1, 2, 5, 6; PGC 4)
4. Integrate previous knowledge of anatomy and physiology to identify sonographically and document the pathology and pathophysiology of the abdominal viscera, superficial structures, and small parts. (CCC1, 2, 5, 6; PGC 1, 2, 3, 4)
5. Discuss the laboratory testing associated with the abdominal viscera, superficial structures, and small parts. (CCC 1, 2, 6; PGC 2, 3, 4)
6. Explain and document the preparation that should precede a sonographic examination of the abdominal viscera, superficial structures, and small parts. (CCC 1, 2, 3, 4, 5, 6; PGC 2, 3, 4)
7. Perform basic abdominal imaging techniques required to demonstrate the equipment and techniques. (CCC 1, 2, 3, 4, 5, 6; PGC 1, 2, 3, 4)
8. Explain and document the completion process of a sonographic examination of the abdominal viscera, superficial structures, and small parts. (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. Integrate previous knowledge of anatomy and physiology to examine the cross-sectional anatomy of the abdominal viscera and superficial structures.
  1. Explain the normal gross anatomy, location, size, and adjacent organ relationships of abdominal viscera, superficial structures, and small parts, including but not limited to gastrointestinal tract, pancreas, spleen, adrenal glands, retroperitoneum, lymphatic system, thyroid, breast, scrotum, prostate, and musculoskeletal.
  2. Discuss the importance of a technical systematic approach in examining the normal morphological structures.
  3. Explain directional terms, anatomic position, and anatomic planes relating to cross-sectional anatomy.
  4. Explain image quality terms and internal echo patterns used in sonographic procedures.
2. Explain the principles of scanning techniques in examining the abdominal viscera, superficial structures, and small parts.
  1. Explain the importance and benefit of using proper transducer selection and technique in sonographic examinations.
  2. Perform the accepted guidelines and scanning protocols used in sonographic examinations.
  3. Use scan protocol while remaining within allowable scan time.
3. Integrate previous knowledge of anatomy and physiology to identify sonographically the anatomy and physiology of the abdominal viscera, superficial structures, small parts, and vasculature.
  1. Discuss visceral physiology and its essential importance to life.
  2. Discuss and identify the sonographic appearance of relational anatomy of abdominal viscera and superficial structures, including gastrointestinal tract, pancreas, spleen, adrenal glands, retroperitoneum, lymphatic system, thyroid, breast, scrotum, prostate, and musculoskeletal.
4. Integrate previous knowledge of anatomy and physiology to identify sonographically and document the pathology and pathophysiology of the abdominal viscera, superficial structures, and small parts.
  1. Describe and identify the sonographic appearances of pathologies relating to inflammatory, neoplastic, infectious, obstructive, metabolic, traumatic, degenerative, iatrogenic, congenital, and immunologic process of gastrointestinal tract, pancreas, spleen, adrenal glands, retroperitoneum, lymphatic system, thyroid, breast, scrotum, prostate, and musculoskeletal.
  2. Explain and identify specific anatomic variants.
5. Discuss the laboratory testing associated with the abdominal viscera, superficial structures, and small parts.
  1. Discuss tests of adrenal function.
  2. Discuss tests of thyroid and parathyroid function.
  3. Discuss prostate specific antigen (PSA) tests.
6. Explain and document the preparation which should precede a sonographic examination of the abdominal viscera, superficial structures, and small parts.
  1. Apply the steps involved in patient preparation for abdominal studies.
  2. Apply and demonstrate the scanning unit preparation with regard to transducer selection, exam table height, and patient body habitus.
7. Perform basic abdominal imaging techniques required to demonstrate the equipment and techniques.
  1. Perform imaging techniques required to evaluate normal relational anatomy of organs/systems, including but not limited to gastrointestinal tract, pancreas, spleen, adrenal glands, retroperitoneum, lymphatic system, thyroid, breast, scrotum, prostate, and musculoskeletal.
8. Explain and document the completion process of a sonographic examination of the abdominal viscera, superficial structures, and small parts.
  1. Produce written reports of findings using sonographic terminology.

**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
9 Tests (3.3% each) (summative)	30%
Mid-Term Exam (summative)	20%
2 Competencies (15% each) (summative)	30%
Final Exam (summative)	20%
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.