



INSTRUCTIONAL PACKAGE

DMS 116

ABDOMINAL SONOGRAPHY

202520

Fall 2025/Spring 2026/Summer 2026

INSTRUCTIONAL PACKAGE

Part I: Course Information

Effective Term: Fall 2025/Spring 2026/Summer 2026

COURSE PREFIX: 116

COURSE TITLE: ABDOMINAL SONOGRAPHY

CONTACT HOURS: 5 CREDIT HOURS: 3

RATIONALE FOR THE COURSE:

DMS 116 is a core course in the Diagnostic Medical Sonography program that focuses on the sonographic evaluation of the abdominal organs. This course provides an in-depth study of abdominal anatomy, physiology, and common pathological conditions. Students will learn and apply foundational scanning techniques to image abdominal structures, with an emphasis on identifying and understanding common abnormalities. Through both didactic instruction and hands-on practice, students will build the knowledge and skills essential for accurate abdominal ultrasound imaging.

COURSE DESCRIPTION:

This course is an in-depth study of abdominal ultrasound including anatomy, physiology, and pathology. The sonographic appearance of normal anatomical structures and the more common abnormalities affecting the abdomen are also discussed.

PREREQUISITES/CO-REQUISITES:

DMS 114 – CROSS SECTIONAL ANATOMY

REQUIRED MATERIALS:

Please visit the [BOOKSTORE](#) online site for most current textbook information.

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

ADDITIONAL REQUIREMENTS:

TECHNICAL REQUIREMENTS:

Access to Desire2Learn (D2L), HGTC's learning management system (LMS) used for course materials.

Access to myHGTC portal for student self-services.

College email access – this is the college’s primary official form of communication.

STUDENT IDENTIFICATION VERIFICATION

Students enrolled in online courses will be required to complete identity verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

CLASSROOM ETIQUETTE:

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

NETIQUETTE: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit [Online Netiquette](#).

Part II: Student Learning Outcomes

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

Module #1 – Sonography Overview and Introduction to Laboratory Values

Materials Covered: Chapter 1 – Steven Penny, Examination Review for Ultrasound
Chapter 8 – Curry Temkin

***Assessment(s):** Complete Workbook activity
Unit Test

Learning Outcomes:

- Explain the role of laboratory tests and normal ranges of values.
- Compare and contrast lab values with normal, high and low values
- List methods used to obtain laboratory samples
- Describe the importance of quality control in laboratory testing
- Explain process for obtaining clinical information
- Describe relevant laboratory findings
- Describe the importance of reviewing patient charts, history, lab values and previous exams prior to ultrasound exam
- Explain common ultrasound terms
- Define Sonographers role in abnormal findings.

Module #2 -

Materials Covered: Abdominal Sonography – The Urinary System and Adrenal Glands
Chapter 15 Curry Prince Textbook

***Assessment(s):** Workbook activity
Lab scanning
Unit Test

Learning Outcomes:

- Describe the function of the urinary and adrenal system.
- Explain the blood supply of kidneys and adrenal glands.
- Explain the function of the nephron.
- Describe the location of the kidneys, ureters, urethra, urinary bladder, and adrenal glands.
- Describe the sonographic appearance of the urinary and adrenal system.
- Describe associated physicians, diagnostic tests, and laboratory values for the kidneys and adrenal glands.

Module #3

Materials Covered: Abdominal Sonography – The Spleen
Chapter 17 Curry Prince Textbook

***Assessment(s):** Workbook activity
Lab scanning
Unit Test

Learning Outcomes:

- Describe function of the spleen.
- Describe location of the spleen.
- Define size relationships of the normal spleen.
- Describe gross anatomy of the normal spleen.
- Describe sonographic appearance of the normal spleen
- Discuss sonographic applications and normal variants of the spleen
- Describe associated physicians, diagnostic tests, and laboratory values relevant to the normal spleen

Module #4 -

Materials Covered: Abdominal Sonography – The Gastrointestinal System
Chapter 18 Curry Prince Textbook

***Assessment(s):** Workbook activity
Unit Test

Assessment(s):*Learning Outcomes:**

- Differentiate the structures of gastrointestinal tract.
- Describe the functions of the gastrointestinal tract components.
- Localize anatomic relationships between bowel segments and abdominal organs.
- Identify the five layers of bowel known as gut signature.
- Know the vasculature of the gastrointestinal tract.
- Describe the size of gastrointestinal tract structures.
- Describe the location of gastrointestinal tract components.
- Recognize the sonographic appearance of the gastrointestinal tract.
- List the ultrasound findings suggestive of appendicitis.
- Describe the associated physicians, diagnostic tests, and laboratory values related to gastrointestinal tract.

Module #5 - Cross sectional anatomy of the Pelvis

Materials Covered: The Male Pelvis
Chapter 19 and 28 Curry Prince Textbook

***Assessment(s):** Complete Workbook activities
Unit Test

Learning Outcomes:

- Illustrate the normal gross, sectional, and vascular anatomy of the scrotum, testis, testicular appendages, epididymis, ductus (vas) deferens, spermatic cord, prostate gland, seminal vesicles and penis.
- Describe the normal anatomy of the scrotum, testis, testicular appendages, epididymis, spermatic cord, ductus (vas) deferens, prostate gland, seminal vesicles and penis.
- Describe the normal sonographic appearance of the scrotum, testis, testicular appendages, scrotal ligament, epididymis, ductus (vas) deferens, spermatic cord, prostate gland, seminal vesicles and penis.
- Identify the associated physicians, related diagnostic tests, and laboratory values.

Module #6 -

Materials Covered: Introduction to Abdominal Pathology
Chapters 1-4 and 9 Steven Penny Textbook

***Assessment(s):** Workbook activity
Lab scanning
Unit Test

Learning Outcomes:

- Recognize and identify the Sonographic appearance of normal anatomic structures within the liver,
- Examine anatomic variants of normal and abnormal Doppler patterns of the liver.
- Identify and distinguish abnormal disease processes, pathology, and pathophysiology of the liver and its vascular structures.
- Differentiate and compare inflammatory, traumatic, neoplastic, infectious, obstructive, congenital metabolic and immunologic disorders seen in liver ultrasound studies.
- Record and obtain adequate history and physical examination related to liver pathology.
- Recognize and identify the Sonographic appearance of normal anatomic structures,
- Examine anatomic variants of normal and abnormal Doppler patterns of the abdomen.
- Identify and distinguish abnormal disease processes, pathology, and pathophysiology of all abdominal and vascular structures.
- Recognize and identify the Sonographic appearance of normal anatomic structures of the pancreas and biliary system,
- Examine anatomic variants of normal and abnormal found in the pancreas and biliary system.

****Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

Part III: Grading and Assessment

Students’ performance will be assessed, and the weight associated with the various measures/artifacts are listed below.

- Tests/Quizzes
- Presentation
- Assignments
- Final Exam

EVALUATION*

Assignments	20%
Lab proficiencies	30%

Module Tests	30%
Final Exam	<u>20 %</u>
	100

****Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.***

GRADING SYSTEM:

State the College's or departmental grading system as delineated in the Catalog. Please note the College adheres to a 10-point grading scale A = 100 – 90, B = 89- 80, C = 79 – 70, D = 69 – 60, F = 59 and below. You must have your Dean's approval if changes in the scale are made.

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the [academic calendar](#) for deadlines for add/drop. You must attend at least one meeting of all your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of 80 percent (80%) of their classes in order to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student, and a student may not be permitted to reenroll. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

For online and hybrid courses, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, and if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

Part V: Student Resources



THE STUDENT SUCCESS AND TUTORING CENTER (SSTC):

The SSTC offers to all students the following **free** resources:

1. Academic tutors for most subject areas, Writing Center support, and Academic Coaching for college success skills.
2. Online tutoring and academic support resources.
3. Professional and interpersonal communication coaching in the EPIC Labs.

Visit the [Student Success & Tutoring Center](#) website for more information. To schedule tutoring or coaching, contact the SSTC at ssc@hgtc.edu or self-schedule in the Penji iOS/Android app or at www.penjiapp.com. Email ssc@hgtc.edu or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the SSTC [Online Resource Center](#) to access on-demand resources.



STUDENT INFORMATION CENTER: TECH Central

TECH Central offers to all students the following **free** resources:

1. Getting around HGTC: General information and guidance for enrollment, financial aid, registration, and payment plan support!
2. In-person and remote assistance are available for Desire2Learn, Student Portal, Degree Works, and Office 365.
3. Chat with our staff on TECH Talk, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552. Visit the Tech Central website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 – TECH (8324), Option # 1.



HGTC LIBRARY:

Each campus location has a library where HGTC students, faculty, and staff may check out materials with their HGTC ID. All three HGTC campus libraries have librarians and staff who can aid with research, computers to support academic research and related school-work, and

individual/group study rooms. Printing is available as well at each location. Visit the [Library](#) website for more information or call (843) 349-5268.

STUDENT TESTING:

Testing in an **online/hybrid** course and in **make-up exam** situations may be accomplished in a variety of ways:

- Test administered within D2L.
- Test administered in writing on paper.
- Test administered through Publisher Platforms (which may have a fee associated with the usage)

Furthermore, tests may have time limits and/or require a proctor.

Testing candidates must make their appointments 24 hours in advance.

Students must bring a physical ID in order to take a test.

Proctoring can be accomplished either face-to-face at an approved site or online through our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

DISABILITY SERVICES:

HGTC is committed to providing an accessible environment for students with disabilities. Students seeking accommodations are encouraged to visit HGTC's [Accessibility and Disability Service webpage](#) for detailed information.

It is the student's responsibility to self-identify as needing accommodations and to provide appropriate documentation. Once documentation is submitted, the student will participate in an interactive process with Accessibility and Disability Services staff to determine reasonable accommodations. Students may begin the accommodations process at any time; however, accommodations are **not retroactive** and will only be applied from the point at which they are approved. Students must contact the office **each semester** to renew their accommodations.

For assistance, please contact the Accessibility and Disability Services team at disabilityservices@hgtc.edu or 843-796-8818 (call or text).

COUNSELING SERVICES:

HGTC Counseling Services strives to optimize student success through managing personal and academic concerns that may interfere with achieving educational goals. Staff are available to

every student for assistance and guidance on personal matters, academic concerns and other areas of concern. HGTC offers free in-person and telehealth counseling services to students. For more information about counseling services, please reach out to counseling@hgtc.edu or visit the website the [Counseling Services webpage](#).

STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Our sincere commitment to both effective business management and equitable treatment of our employees requires that we present this Policy Statement as an embodiment of that commitment to the fullest.

Discrimination is conduct that includes unjust or prejudicial treatment based upon an individual's sex, race/color, religion, national origin, age, disability, service in the uniformed services (as defined in state and federal law), veteran status, political ideas, marital or family status, pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation, genetic information, genetic identity, gender expression, or sexual orientation that excludes an individual from participation in, denies the individual the benefits of, treats the individual differently, or otherwise adversely affects a term or condition of a person's working or learning environment. This includes failing to provide reasonable accommodation, consistent with state and federal law, to persons with disabilities.

INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX POLICIES:

Student and prospective student inquiries concerning Section 504, Title II, Title VII, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs.

Dr. Melissa Batten, VP Student Affairs

Title IX, Section 504, and Title II Coordinator

Building 1100, Room 107A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5228

Melissa.Batten@hgtc.edu

Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.

Jacquelyne Snyder, VP Human Resources

Affirmative Action/Equal Opportunity Officer and Title IX Coordinator

Building 200, Room 205B, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5212

Jacquelyne.Snyder@hgtc.edu

TITLE IX REQUIREMENTS:

Title IX of the Education Amendments of 1972 protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination.

HGTC prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking and will provide students, faculty, and staff with necessary information regarding prevention, policies, procedures, and resources.

Any student, or other member of the college community, who believes that they have been a victim of sexual harassment, domestic violence, dating violence, sexual assault, or stalking may file a report with the college's Title IX Coordinator or campus law enforcement*.

*Faculty and Staff are required to report these incidents to the Title IX Coordinator when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

Student and prospective student inquiries concerning Title IX and its application to the College or any student decision may be directed to the Vice President for Student Affairs.

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PREGNANCY ACCOMMODATIONS

Under Title IX, colleges must not exclude a pregnant student from participating in any part of an educational program. Horry-Georgetown Technical College is committed to ensuring that pregnant students receive reasonable accommodations to ensure access to our educational programs.

Students should advise the Title IX Coordinator of a potential need for accommodations as soon

as they know they are pregnant. It is extremely important that communication between student, instructors, and the Title IX Coordinator begin as soon as possible. Each situation is unique and will be addressed individually.

Title IX accommodations DO NOT apply to Financial Aid. Financial Aid regulations do not give the College any discretion in terms of Financial Aid eligibility.

Certain educational programs may have strict certification requirements or requirements mandated by outside regulatory agencies. Therefore, in some programs, the application of Title IX accommodations may be limited.

To request pregnancy accommodations, please complete the *Pregnancy Intake Form* that can be found [here](#).