INSTRUCTIONAL PACKAGE

RAD 135

Computed Tomography Body and

Musculoskeletal Protocols

202310
Fall 2023

INSTRUCTIONAL PACKAGE

Part I: Course Information

Effective Term: Fall 2023 202310

COURSE PREFIX: RAD 135
COURSE TITLE: Computed Tomography Body and Musculoskeletal Protocols

CONTACT HOURS: 2-0-2   CREDIT HOURS: 2-0-2

RATIONALE FOR THE COURSE:

This course will provide the Computed Tomography student with the basic knowledge to scan the head, neck, chest, abdomen, pelvis, and extremities using proper imaging protocols, patient care techniques, identification of anatomy and pathology, and film critique.

COURSE DESCRIPTION:

This course provides the basic imaging protocols and patient positioning for CT exams of the abdomen, pelvis, and musculoskeletal system. Case studies including anatomy and pathology of the abdomen, pelvis, and extremities will be explored.

PREREQUISITES/CO-REQUISITES: Current valid ARRT certification in Radiologic Technology

***Online/Hybrid** courses require students to complete the DLi Online Student Orientation prior to completing an online course.

REQUIRED MATERIALS:

Please visit the BOOKSTORE online site for most current textbook information. Use the direct link below to find textbooks.

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

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 participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

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*:

Week 1- ASRT Module 8- Cross Sectional Anatomy of the head and neck
1. Name and describe the anatomical planes of the body.
2. List and define directional terminology related to the body.
3. Describe human embryo development.
4. Name the major structures of the head and neck discussed in this module.
5. Describe the function of each anatomical structure discussed in this module.
6. Locate specific organs or structures on a schematic or CT image.
7. Identify the anatomical plane in which cross-sectional images were either acquired or reformatted.
8. Recall the structures of the human vascular system.
9. Name the 12 cranial nerves, their distribution and function.
10. Identify selected muscular structures.

Week 2- ASRT Module 9- Cross-Sectional Anatomy of Abdomen and Pelvis
1. Define anatomical terms associated with the structures described in this module.
2. Name the major structures of the chest, abdomen and pelvis discussed in this module.
3. Describe the function of each anatomical structure discussed in this module.
4. Identify the abdominal quadrants.
5. Locate specific organs or structures on a schematic or computed tomography image.

Week 3- ASRT Module 10- Additional Applications
1. Describe current trends in computed tomography (CT).
2. Explain radiation protection principles in CT used to minimize exposure.
3. Discuss radiation physics as it relates to computed tomography.
4. Explain the basic procedures for additional CT applications.
5. Identify modifications used for trauma and pathology.
6. Recognize the uses of virtual CT in medical imaging.
7. Explain how CT is used in radiation therapy treatment planning, nuclear medicine, and mobile imaging.

Week 4- ASRT Module 11- Pathology- Part 1
1. Identify selected pathology on computed tomography (CT) images.
2. Name the causes of some of the pathology presented in the module.
3. Provide statistical data on the prevalence of certain pathologic conditions.
4. List symptoms associated with the presence of select pathology.
5. Distinguish between the CT appearance of normal organs and tissues from those involved in pathology.
6. Define the pathologic processes discussed in the module.

Week 5- ASRT Module 12- Pathology- Part 2
1. Identify selected pathology on computed tomography (CT) images.
2. Name the causes of some of the pathology presented in the module.
3. Provide statistical data on the prevalence of certain pathologic conditions.
4. List symptoms associated with the presence of select pathology.
5. Distinguish between the CT appearance of normal organs and tissues from those involved in pathology.
6. Define the pathologic processes discussed in the module.

Week 7- Computed Tomography of the Body- Seeram- Ch. 16

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

Part III: Grading and Assessment

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*:

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

EVALUATION*

Tests	60%
Assignments	20%
Final Exam	20%
	100%

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

GRADING SYSTEM:

GRADING SCALE FOR THE MEDICAL IMAGING SCIENCES- RADIOLOGY PROGRAM CLINICAL COMPONENT IS AS FOLLOWS:

96-100 = A
90- 95 = B
89- 84 = C
83- 80 = D
79-0 = F

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 of 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 **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 appointments using TutorTrac, visit the Student Services tab in WaveNet. Email sstc@hgtc.edu or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the 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!
2. Use the Online Resource Center (ORC) including scheduled technology training, Office 365 support, password resets, and username information.
3. **Drop-in technology support or scheduled training** in the Center or in class.
4. **In-person workshops, online tutorials and more services** are available.
5. **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).

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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 are equipped with computers to support academic research and related school work; printing is available as well. 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.

Proctoring can be accomplished either face-to-face at an approved site or online through RPNow, 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. Inquiries may be directed to HGTC's Accessibility and Disability Service webpage. The Accessibility and Disability staff will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Horry-Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

April 2020

TITLE IX REQUIREMENTS:

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college's Chief Student Services Officer, campus law enforcement, or with the college's Title IX Coordinator or designee.

> *Faculty and Staff are required to report incidents to the Title IX Coordinators 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).

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