



# **INSTRUCTIONAL PACKAGE**

RAD 102  
Radiology Patient Care Procedures

Effective Term  
2020-2021

# INSTRUCTIONAL PACKAGE

## Part I: Course Information

Effective Term: 2020-2021

COURSE PREFIX: RAD 102

COURSE TITLE: Radiology Patient Care Procedures

CONTACT HOURS: 3

CREDIT HOURS: 2

### **RATIONALE FOR THE COURSE:**

This course provides a study of the procedures and techniques used in the care of the diagnostic imaging patient.

This course serves to prepare the student for the clinical process as a beneficial component of their total education. It will provide the student an overview of the organizations governing the radiological technology profession. It also provides a study of the Healthcare system administrative services. This course assists the student with the skills necessary to provide safe, courteous patient care. It will provide detailed, concise instructions for the physical protection of the student as well as the patient. Emphasis is placed on professional ethics, patient and student confidentiality.

### **COURSE DESCRIPTION:**

This course provides a study of the procedures and techniques used in the general care of the diagnostic imaging patient.

### **PREREQUISITES/CO-REQUISITES:**

BIO 210 Acceptance to Radiologic Technology program.

\***Online/Hybrid** courses require students to complete the DLI Online Student Orientation prior to completing an online course. The DLI Online Student Orientation can be found in WaveNet, under the My Student tab.

### **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.

1. *Introduction to Radiologic Sciences and Patient Care 7th Ed.*, ISBN- 9780323581400  
Arlene M. Adler, Med, RT (R), FAERS and  
Richard R. Carlton, MS, RT(R)(CV),FA

### **TECHNICAL REQUIREMENTS:**

Access to Desire2Learn (D2L), HGTC's student portal for course materials.

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WaveNet and D2L email access.

### **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.

### **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 for 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- Weeks 1- Ch. 1- Introduction to Imaging and Radiologic Sciences and Ch. 2- Radiographic Equipment

Materials Covered: Introduction to Radiologic Sciences and Patient Care 6th Ed

\*Assessment(s): Complete D2L activity Unit Test

Learning Outcomes:

1. Explain the use of radiation in medicine
2. Describe the discovery of x-rays
3. Define terms related to radiologic technology
4. Identify the various specialties within a radiology department
5. Describe the typical responsibilities of the members of the radiology team.
6. Differentiate accreditation, certification, and representation functions of various professional organizations

Module #2- Week 2- Ch. 7 Radiographic Imaging and Ch. 8 Radiographic Equipment

Materials covered: Introduction to Radiologic Sciences and Patient Care 7th Ed

\*Assessment(s): Complete D2L activity Unit Test

Learning Outcomes:

1. Describe the fundamentals of image production
2. Discuss image quality in terms of image receptor exposure/density, contrast, recorded detail, and distortion.
3. Discuss primary, scatter, and remnant radiation
4. Describe the three major categories of image receptor systems used in radiography
5. Identify beginning radiologic technology terminology.

6. Recognize components of the radiology department
7. Identify the typical features of a radiographic system
8. Explain the major controls on the radiographic system table and control console

Module #3- Week 3- Chapter 11 Imaging and 12-History Taking

*Materials Covered: Introduction to Radiologic Sciences and Patient Care 7th Ed*

*\*Assessment(s):* Complete D2L activity, Unit Test

Learning Outcomes:

1. Identify qualities needed to be a caring radiologic technologist
2. Explain why patient interaction is important to patients, as well as their family and friends.
3. Analyze effective methods of communicating with patients of various ages
4. Discuss considerations of the physical changes of aging with regard to radiologic procedures
5. Describe the role of the radiologic technologist in taking patient clinical histories
6. Differentiate objective from subjective data.
  
7. Describe the importance of clarifying the chief complaint
8. Detail the important elements of each of the sacred seven elements of the clinical history.

Module #4- Week 4- Ch 17-Infection Control, Ch. 18- Aseptic Techniques and Ch 19-Nonaseptic Techniques

*Materials Covered: Introduction to Radiologic Sciences and Patient Care 7th Ed*

*\*Assessment(s):* Complete D2L activity , Unit Test

Learning Outcomes:

1. Define a terminology related to infection control
2. Explain the steps involved in the establishment of an infectious disease
3. Discuss the four factors involved in the spread of disease and the chain of infection
4. Describe the various sources of nosocomial infection
5. List the chemical and physical methods of asepsis
6. Demonstrate the medically aseptic handwashing technique
7. Describe the basic premises of standard precautions
8. Describe the procedures for gowning and gloving
9. Provide care to patients with various medical tubes and lines

Module #5- Week 5- Ch 15- Vital Signs, Oxygen, Chest Tubes and Lines and Ch. 20- Medical Emergencies

*Materials Covered: Introduction to Radiologic Sciences and Patient Care 7th Ed*

*\*Assessment(s):* Complete D2L activity , Unit Test

Learning Objectives:

1. Discuss the significance of homeostasis
2. Discuss the significances of each of the 4 vital signs: temperature, respiration, pulse and blood pressure
3. Identify the normal range for each of the vital signs
4. Explain the implications of abnormal vital signs
5. Describe the uses of, or indications for, the following thoracic tubes and lines to manage compromised patients; endotracheal tubes, thoracostomy tubes, and central venous lines.

6. Define terms related to medical emergencies
7. List the objectives of first aid
8. Explain the purpose of an emergency cart and its contents
9. Describe the signs and symptoms of various medical emergencies
10. Describe the appropriate procedures for handling patients with various medical images emergencies.
11. Demonstrate appropriate principles of cardiopulmonary resuscitation

Module #6- Week 6- Ch. 21- Pharmacology, Ch. 22- Principles of Drug Administration and Ch 23- Contrast Media and Radiopharmaceuticals

Materials Covered: Introduction to Radiologic Sciences and Patient Care 7th Ed-

\*Assessment(s): Complete D2L activity , Unit Test

Learning Objectives:

1. Recognize common definitions and nomenclature associated with pharmacology
2. Recognize the various classifications of drugs
3. List the 5 rights of drug administration
4. List the methods of drug administration
5. Describe documentation procedures related to drug administration.
6. State the purpose of contrast media
7. Differentiate between high and low subject contrast; and compare negative and positive agents
8. List the complications of the administration of contrast media
9. Relate the patient history to the possibility of adverse reactions.

Module #7- Week 7- Ch 13- Safe Patient Movement, Ch 14- Immobilization Techniques

Materials Covered: Introduction to Radiologic Sciences and Patient Care 7th Ed-

\*Assessment(s): Complete D2L activity , Unit Test

Learning Objectives:

1. Define the terms associated with body mechanics
2. Describe the cause, signs, symptoms, and treatment of orthostatic hypotension
3. Describe the basic principles of proper lifting and transfer techniques
4. Identify five standard patient positions
5. Demonstrate a range of immobilization techniques
6. Explain the importance of high quality communication with the patient
7. Describe reduction of patient radiation exposure by using the proper and immobilization methods
8. Apply immobilization techniques in routine situations
9. Use these devices effectively
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Module #8- Week 8- Ch. 26- Medical Law

Materials Covered: Introduction to Radiologic Sciences and Patient Care 7th Ed-

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\*Assessment(s): Complete D2L activity , Unit Test

Learning Objectives:

1. Outline how the standard of care is established for radiologic technologist
2. Discuss the concepts of privacy of records, respondeat superior, informed consent and medical negligence.
3. Explain negligence and the four elements necessary to meet the burden of proof in a medical negligence claim.
4. Outline the information the patient must have before an informed consent may be given.
5. Define human diversity and list some characteristics
6. Describe the human diversity traits of age, ethnicity or national origin, race, gender or sexual orientation, and mental and physical ability.
7. List the elements associated with cultural competency.
8. Discuss valuing diversity and know the empathetic practices that help foster cultural insight and produce improved outcomes
9. Describe the 6 areas of human diversity that health care providers need to understand to provide high-quality and affective care.

Module #9- Week 9- Ch. 4-Critical Thinking and Problem Solving Strategies and Ch. 24- Professional Ethics

Materials Covered: Introduction to Radiologic Sciences and Patient Care 7th Ed-

\*Assessment(s): Complete D2L activity , Unit Test

Learning Objectives:

1. Explain the ethics of the radiologic technology profession
2. Identify moral dilemmas encountered in patient relationships
3. Recognize values associated with ethical decision-making in the practice of radiologic technology.
4. Apply critical analysis to ethical decision-making
5. Define critical thinking and problem solving and discuss the importance in radiologic technology field
6. Analyze and determine appropriate actions for situations that require critical thinking
7. Develop critical-thinking and problem-solving skills as a radiologic sciences professional.

***\*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	70%
Assignments	15%
Final Exam	15%
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	100%

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

### **GRADING SYSTEM:**

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.

Semester exams and Final Exam comprise your grade. Grades are assigned according to raw score divided by total possible points. Grading scale is as follows:

92-100-A      83-91- B      74-82- C      65-73-D      64 and below- 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.

In this class a student must not exceed 3 absences, regardless of reason. A 2nd absence results in a verbal, written warning and a 3rd absence results in a final, written warning. After the allowed number of misses, the student will be dropped from the course with a W or a WF.

If a student must be absent on the day of an assigned test or quiz the student must call the instructor within 24 hours to schedule a make-up test.

## 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 [ssc@hgtc.edu](mailto:ssc@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.



### CENTRAL 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).

### STUDENT TESTING:

Testing in an **online/hybrid** course may be accomplished in a variety of ways:

- Test administered within D2L



- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more 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.

### **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, 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 Coordinator*

Building 1100, Room 107A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5228

[Melissa.Batten@hgtc.edu](mailto: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**

*EEO and Title IX Coordinator*

Building 200, Room 212A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5212

[Jacquelyne.Snyder@hgtc.edu](mailto:Jacquelyne.Snyder@hgtc.edu)