



# **INSTRUCTIONAL PACKAGE**

**RAD 102**

**Radiology Patient Care Procedures**

**201730**  
**Summer 2018**

# INSTRUCTIONAL PACKAGE

## PART I: COURSE INFORMATION

Effective Term: 201730

COURSE PREFIX: RAD 102-S01

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 patient

### PREREQUISITES/CO-REQUISITES:

BIO 210 Acceptance to Radiologic Technology program.

### REQUIRED MATERIALS:

1. *Introduction to Radiologic Sciences and Patient Care 6th Ed.*, ISBN-13: 9780323315791  
Arlene M. Adler, Med, RT (R), FAERS and  
Richard R. Carlton, MS, RT(R)(CV),FA

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

[BOOKSTORE](#).

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 student portal for course materials. Respondus Lockdown Browser required for classroom testing.

WaveNet and D2L email access.

## **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.

## **PART II: STUDENT LEARNING OUTCOMES**

### **COURSE LEARNING OUTCOMES and ASSESSMENTS\*:**

List Assessments and Learning Outcomes for each module.

#### **Module #1- Weeks 1- Chapter 8- Radiographic Equipment**

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

**\*Assessment(s):** Complete class review activity, Lab Sessions

#### **Learning Outcomes:**

1. Identify beginning radiologic technology terminology.
2. Recognize components of the radiology department
3. Identify the typical features of a radiographic system
4. Explain the major controls on the radiographic system table and control console

#### **Module #2- Week 2- Chapter 7-Radiographic Imaging and 12-History Taking**

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

**\*Assessment(s):** Complete class review activity, Lab Sessions

#### **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. 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.

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

### **Module #3- Week 3- Chapter 5-Intro to Clinical Education and 11-Patient Interactions**

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

**\*Assessment(s):** Complete class review activity, Lab Sessions

#### **Learning Outcomes:**

1. Explain the importance of the clinical education component
2. Describe the physical and human resources necessary for effective clinical education
3. Explain the importance of adhering to major clinical education policies
4. Summarize the clinical education process
5. Identify qualities needed to be a caring radiologic technologist
6. Explain why patient interaction is important to patients, as well as their family and friends.
7. Analyze effective methods of communicating with patients of various ages
8. Discuss considerations of the physical changes of aging with regard to radiologic procedures

### **Module #4- Week 4- Ch 15-Vital Signs, Oxygen, Chest Tubes, and Lines and 19- Medical Emergencies**

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

**\*Assessment(s):** Complete class review activity, Lab Sessions

#### **Learning Outcomes:**

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 #5 Week 5- Ch.7-Radiographic Imaging and Ch 9- Radiation Protection**

**Materials Covered:** *Introduction to Radiologic Sciences and Patient Care*

**\*Assessment(s):** Complete class review activity, Lab Sessions

### **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. Identify the sources of ionizing radiation
4. Describe the units used to measure radiation exposure
5. Explain the ways in which ionized in radiation interacts with matter
6. Describe the various methods used to protect the patient from excessive radiation
7. Describe several Devices used to detect and measure exposure to ionizing radiation

## **Module #6 Week 6- Ch.13-Patient Movement and Ch 14- Immobilization**

**Materials Covered:**

**\*Assessment(s):** Complete class review activity, Lab Sessions

### **Learning Outcomes:**

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

**Module #7 Week 7- Ch.22-Professional Ethics, Ch.16-Infection Control, Ch.17- Aseptic Techniques and Ch.18-Nonaseptic Techniques**

**Materials Covered:** *Introduction to Radiologic Sciences and Patient Care*

**\*Assessment(s):** Complete class review activity, Lab Sessions

**Learning Outcomes:**

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

**Module #8 Week 8-Ch 20- Contrast Media, Ch 21.- Pharmacology & Ch 10-Human Diversity**

**Materials Covered:** *Introduction to Radiologic Sciences and Patient Care*

**\*Assessment(s):** Complete class review activity, Lab Sessions

**Learning Outcomes:**

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 #9 Week 9 –Ch 24- Medical Law

**Materials Covered:** *Introduction to Radiologic Sciences and Patient Care*

**\*Assessment(s):** Complete class review activity, Lab Sessions

### **Learning Outcomes:**

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 #10 Week 10 –Ch 2-Professional Organizations, Ch 3- Educational Survival Skills, Ch 4- Critical-Thinking and Problem-Solving Strategies

**Materials Covered:** *Introduction to Radiologic Sciences and Patient Care*

**\*Assessment(s):** Complete class review activity, Lab Sessions

### **Learning Outcomes:**

1. Differentiate accreditation, certification, and representation functions of various professional organizations.
2. Describe the organizations that carry out the professional aspects of a specific radiologic technology area of specialization.
3. Discuss the causes and symptoms of stress
4. Enumerate steps to manage time through organization, limit setting, and self-evaluation
5. Foster study techniques to enhance retention
6. Define critical thinking and problem solving and discuss the importance in radiologic technology field
7. Analyze and determine appropriate actions for situations that require critical thinking
8. Develop critical-thinking and problem-solving skills as a radiologic sciences professional.

## 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.

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, and WFs 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. The following week of the semester is financial aid attendance verification period. 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.

### GRADING SYSTEM:

Grading scale for the Medical Imaging Sciences programs 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 ([ACADEMIC CALENDAR](#)). 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 eighty percent (80%) of his or her classes in order to be eligible to receive credit for any course. However, due to the varied nature of courses taught at the College, a more rigid attendance policy may be required by individual instructors. At a minimum, a student may be withdrawn from a course(s) after he or she has been absent in excess of ten percent (10%) of the total contact hours for a course.

Please note, instructors may require tests to be taken at approved testing sites, 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.

Tardy Policy:

Students should be on time. It will be the policy that after the 3rd tardy, the student will receive a verbal, written warning and be charged 1 day absent. After the 6th tardy, the student will be charged with an additional absence. A 7th tardy will result in termination from the radiology program.

=If a student arrives 10 minutes after scheduled start time, they will be charged with an absence.



## Part V: Student Resources

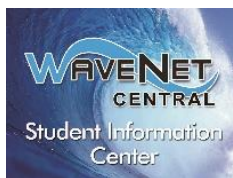


### The Student Success and Tutoring Center (SSTC)

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

1. **Academic coaches** for most subject areas, **Writing Center Support**, and **college success skills**.
2. **On-line student success and academic support resources**.

Visit the SSTC website: [Student Success & Tutoring Center](#) and visit the student services tab in your WaveNet account to schedule appointments using TutorTrac. For more information, call: SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455. Room locations and Live Chat is available on the SSTC website.



### Student Information Center: WaveNet Central (WNC)

WNC offers to all students the following **free** resources:

1. **Getting around HGTC:** General information and guidance for enrollment!
2. Use the [Online Resource Center \(ORC\)](#) for COMPASS support, technology education, and online tools.
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.

Visit the WNC website: [Wavenet Central](#). Live Chat and Center locations are posted on the website. Or please call one of the following locations: WNC Conway, 349-5182; WNC Grand Strand, 477-2076; and WNC Georgetown, 520-1473.

**Student Testing:** (If course is offered in multiple format include this section, delete if only F2F sections are offered.)

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 Jocelyn Williams, Director of Student Development on the Conway Campus Jaime Davis, Counselor/Advisor on the Georgetown Campus or Kristin Griffin, Counselor on the Grand Strand Campus. These individuals 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, gender, national or ethnic origin, age, religion, disability, marital status, veteran status, sexual orientation, gender identity, or pregnancy in educational programs and/or activities.

### ***Title IX Requirements***

Horry Georgetown Technical College prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking. Any student who believe he or she has experienced or witnessed discrimination including sexual harassment, domestic violence, dating violence, sexual assault or stalking is encouraged to report such incidents to one of the College's Title IX Coordinators.

\*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).

<b>Inquiries regarding the non-discrimination policies:</b>	
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 Associate Vice President for Student Affairs.	Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Associate Vice President for Human Resources.
<b>Dr. Melissa Batten, AVP Student Affairs</b> <i>Title IX Coordinator</i> Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 <a href="mailto:Melissa.Batten@hgtc.edu">Melissa.Batten@hgtc.edu</a>	<b>Jacquelyne Snyder, AVP Human Resources</b> <i>Section 504, Title II, and Title IX Coordinator</i> Building 200, Room 212A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 <a href="mailto:Jacquelyne.Snyder@hgtc.edu">Jacquelyne.Snyder@hgtc.edu</a>