



INSTRUCTIONAL PACKAGE

RAD 115

Radiographic Imaging II

201820

Spring/2019

INSTRUCTIONAL PACKAGE

PART I: COURSE INFORMATION

Effective Term: 201820

COURSE PREFIX: RAD 115

COURSE TITLE: Radiographic Imaging II

CONTACT HOURS: 3

CREDIT HOURS: 3

RATIONALE FOR THE COURSE:

Students' need to understand the basic physics, specialized equipment and procedures needed for the production of x rays and acquisition of an image

COURSE DESCRIPTION:

This course continues a detailed study of primary and secondary influencing factors and accessory equipment related to imaging. It is a continuation of imaging and exposure principles covering concepts that include processing, the basic fundamentals of radiologic physics, the atom, EM radiation, electricity, magnetism, electromagnetism and the X- Ray imaging system including mammographic units.

PREREQUISITES/CO-REQUISITES: RAD 110

REQUIRED MATERIALS:

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

[BOOKSTORE](#).

Textbooks: **Radiologic Science for Technologists**, Stewart Bushong, 11th Edition, Elsevier publisher.

Radiologic Science for Technologist Workbook, Stewart Bushong, 11th Edition, Elsevier publisher.

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

ADDITIONAL REQUIREMENTS: Calculator

TECHNICAL REQUIREMENTS:

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

As a group we are with each other for a long time and sometimes with familiarity we can become too comfortable with one another and we can display inappropriate behavior. Occasionally, we do not realize our behavior is not appropriate for the classroom setting. Although we have a lot of policy and procedures already to follow, here is a review of proper classroom etiquette as adopted from Dr. Nardo of Ogelthorpe University. Demonstrating the following qualities **show respect for your professor and fellow students**. It also upholds the integrity of the classroom.

1. Arrive on time to class.
2. Bring the materials needed for class.
3. **Turn off cell phones and texting devices in class.** Students' texting or using their cell phones in class will be dismissed from class and will be charged with an absence. A written warning will be issued on the first offense and a second offense will result in a final written warning.
4. Use laptops/computers as it relates to classroom activities.
5. Create appropriate emails from your wavenet account. When emailing Dr. Gleasman also use **douglas.gleasman@hgtc.edu**
6. **Be attentive in class.**
7. Dress appropriately.
8. Stay the entire class.
9. **Do the work and avoid excuses/complaints.**
10. Use professional language and avoid sarcastic and inappropriate comments. You are entering the medical profession and should act and speak in mature and respectful manor utilizing medical terminology.
11. Take your own notes and **do your own work.**
12. Avoid asking **inappropriate** or **thoughtless** questions.

Abide by the honor and conduct code of HGTC as outlined in the College Catalog.

Part II: Student Learning Outcomes

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

1. Understand the atomic and molecular nature of matter, energy and ionizing radiation. Review the discovery and development and basic radiation protection in of modern radiology.
2. Solve basic physics and math problems associated with electricity and magnetism.
3. Understand and use the basic units of energy, work, power and heat. Recognize and use the SI units of radiologic measure.
4. Identify the components of the x-ray imaging system operating console: Auto-transformer, Exposure timers, rectifier, and high voltage generator.
5. Solve basic physics and math problems associated with electricity and magnetism.
6. Distinguish the difference between High-Frequency, Capacitor Discharge and Falling Load Generators.
7. Comprehend elementary facts about other imaging modalities, specifically nuclear medicine and mammography.
8. Interpret and summarize technical aspects of imaging equipment such as Voltage, Amperage, Rectification, Voltage Ripple, Step-up and Step-down Transformers and Wave Rectification.

9. Compare the basic electrical components of an x-ray system, single phase, three phase and high frequency generators
10. Relate the generators electrical waveform to its output of energy.

****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	50%
Assignments	5%
Quizzes	20%
Final Exam	25%
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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:

Methods of Instruction: Lecture, laboratory experiments, discussion, note taking, AV materials, problem solving and class handouts.

Types of Questions: Questions will be based on knowledge, comprehension, application, analysis and evaluation skills. Most questions will be in a multiple-choice format, although short answer, true and false, matching and diagramming may be incorporated. ***Questions are designed to promote critical thinking*** and in most cases will require more than memorization to obtain the correct answer. Unit Exams, Final Exam, Homework assignments, Quizzes and Lab Assignments comprise your assigned final grade. ***If a student receives a grade below 75% on any Unit Test or 70% on a Quiz, it will be MANDATORY for the student contact the SSTC to schedule an appointment with the radiology tutor to review the material on the test or quiz.*** If the radiology tutor is unavailable, the student will be required to make an appointment with the course instructor. All examination and quiz grades will be posted on D2L a minimum of 24-48 hrs. after everyone in the class has completed the exam or turned in the assignment. The time frame may vary depending on the type of assignment or examination. Students will develop, perform, write-up the lab with appropriate documentation and turn the in lab experiments for a grade. Labs are considered in class assignments and should be performed during lab hours. Additional lab hours may be available upon request to the course instructor.

Students’ performance will be assessed and the weight associated with the various measures/artifacts are listed below. Final grades will be weighted/calculated based on the following:

<u>Grading scale:</u>	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. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

Students at HGTC are responsible for all course work and assignments. Attendance is a must. In this course a student **may not exceed more than 2 absences** as the ***Radiography Program requires a 90% attendance***. A verbal warning will result after the first absence. A written warning results after your second absence. A third absence results in a final written warning. Any further absences are grounds for dismissal. If a student is absent on the day of a test or quiz, the student must notify the instructor within 24 hours of the date and time of the scheduled makeup exam. The student will be responsible for contacting the testing center on the Grand Strand campus to make up the test. A student who calls in absent a second time on a test day must present a valid written, dated excuse for the absence in order to make up the test/quiz. Failure to do so will result in a grade of zero for that test/quiz.

Tardies- (3) tardies = (1) absence with a verbal warning, (4) = written warning, (5)th final written warning. A (6)th offense will result in dismissal from the program.

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.

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).

Inquiries regarding the non-discrimination policies:	
<p>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.</p>	<p>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.</p>
<p>Dr. Melissa Batten, AVP Student Affairs <i>Title IX Coordinator</i> Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 Melissa.Batten@hgtc.edu</p>	<p>Jacquelyne Snyder, AVP Human Resources <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 Jacquelyne.Snyder@hgtc.edu</p>