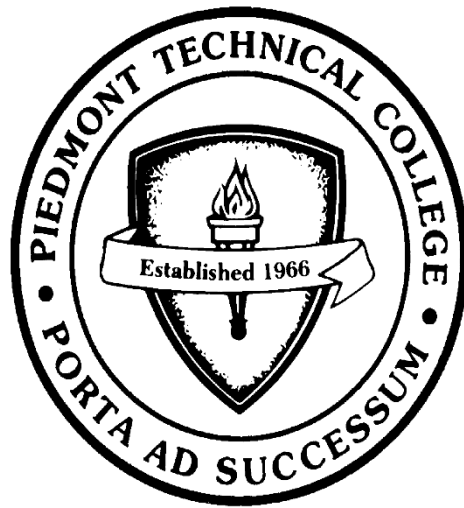


Piedmont Technical College  
Radiologic Technology  
Information Package

2016-2017



## INSTRUCTOR PHONE NUMBERS

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**PROGRAM MISSION:** The mission of the Radiologic Technology Program is to provide an economically feasible didactic and clinical competency based curriculum which provides students from diverse backgrounds the opportunity to master skills required to enter the entry-level job market in diagnostic radiology, transfer to Baccalaureate programs, or seek sub-specialty education and/or employment. This Associate Degree program also strives to assist students in achieving personal and professional goals as well as instill life-long learning values.

## PROGRAM GOALS

- The student will graduate with the necessary skills to function effectively as an entry level radiographer.
- The student/graduate will provide quality patient care.
- The student will value life-long learning as a means of achieving personal and professional growth.
- The student will effectively communicate in a professional manner.
- The student will demonstrate critical thinking and problem solving skills.
- To provide a learning environment for students that stimulates personal and professional growth.
- To meet employment needs without saturating the market with the unemployable.

## STUDENT LEARNING OUTCOMES

- Understand, and apply, the principles of AIDET in the work environment
- Provide patient care
- Perform all routine diagnostic procedures
- Operate all diagnostic/auxiliary equipment found in most Radiology Departments
- Apply the rules of radiation safety when operating any radiation producing equipment
- Critique radiographs to determine diagnostic quality
- Calculate the technical changes necessary to produce a diagnostic radiograph under abnormal circumstances as evidenced by selecting the correct factors
- Perform emergency and special procedures
- Apply knowledge of medical ethics and law to the practice of Radiologic Technology
- Demonstrate knowledge of human structure, function, and pathology
- Evaluate and respond to radiographic systems performance with respect to quality and safety

## Educators Goals

As Educators we have a responsibility to our students to help prepare them to give exceptional patient care during their clinical practices. Healthcare is about serving the patient's need, to help our students meet all clinical site expectations of patient care we strive to educate students to the best of our knowledge. By striving to educate students on how to best take care of a patient will in turn prepare students to reach a level of professional maturity which will allow him/her to excel as a technologist. A Radiologic Technologist is a certified healthcare team member, certified by the American Registry of Radiologic Technologist. The ARRT sets a strict educational requirements which one must meet to be eligible to take this national board examination.

The instructors at Piedmont Technical College feel we can lead students to achieve their goal of becoming a Registered Technologist by offering a strong academic background, exceptional clinical practice and integrating real life situations into the classroom. As educators we strive to show our students ethical work habits, excellent attitudes and positive communication skills. Psychomotor Skills is a key component of the Radiology Program, which are best learned by rotating through various clinical sites which allows students the opportunity to be exposed to diverse individuals and situations. Clinical practice in a clinical setting allows students the unique opportunity to interact with patients to be able to put into practice what they are learned in the classroom. When clinical practices is used to the fullest it can offer a positive learning experience for students to learn from certified professional technologist and clinical instructors. Staff technologist are required to supervisor students through the following phases:

- A. Communication
- B. Illustration
- C. Involvement
- D. Assessment

The instructors are committed to offering the maximum level of Radiologic Technology education for all the students who enter the program. We are willing to put forth our best efforts in our time, knowledge and instruction to make sure our students succeed in the program. However, we also expect all Radiology Students to put forth their best effort as well at every clinical site and all classroom instruction. We are relying on Staff technologist at the various clinical sites to also show each student professionalism and work hard at helping the students master the clinical aspect of this program. Hopefully positive attitudes from Instructors and staff technologist will help foster confident and competent clinical students who will eventually become patient oriented technologist.

# ASSOCIATE IN HEALTH SCIENCE

## MAJOR IN RADIOLOGIC TECHNOLOGY

First Semester (Fall)		Credit	Class	Lab
RAD 101	Introduction to Radiography	2.0	2.0	0.0
RAD 102	Patient Care Procedures	2.0	1.0	3.0
RAD 130	Radiographic Procedures I	3.0	2.0	3.0
RAD 152	Applied Radiography I	<u>2.0</u>	<u>0.0</u>	<u>6.0</u>
		9.0	5.0	12.0
Second Semester (Spring)				
RAD 110	Radiographic Imaging I	3.0	2.0	3.0
RAD 136	Radiographic Procedures II	3.0	2.0	3.0
RAD 165	Applied Radiography II	<u>5.0</u>	<u>0.0</u>	<u>15.0</u>
		11.0	4.0	21.0
Summer Term				
RAD 175	Applied Radiography III	5.0	0.0	15.0
RAD 201	Radiation Biology	2.0	2.0	0.0
RAD 205	Radiographic Pathology	<u>2.0</u>	<u>2.0</u>	<u>0.0</u>
		9.0	4.0	15.0
Third Semester (Fall)				
RAD 115	Radiographic Imaging II	3.0	3.0	0.0
RAD 121	Radiographic Physics	4.0	4.0	0.0
RAD 230	Radiographic Procedures III	3.0	2.0	3.0
RAD 256	Advanced Radiography I	<u>6.0</u>	<u>0.0</u>	<u>18.0</u>
		16.0	9.0	21.0
Fourth Semester (Spring)				
RAD 225	Selected Radiographic Topics	2.0	2.0	0.0
RAD 235	Radiographic Seminar I	1.0	1.0	0.0
RAD 268	Advanced Radiography II	8.0	0.0	24.0
RAD 282	Imaging Practicum	<u>2.0</u>	<u>0.0</u>	<u>6.0</u>
		13.0	3.0	30.0
Summer Term				
RAD 236	Radiographic Seminar II	2.0	2.0	0.0
RAD 276	Advanced Radiography III	<u>6.0</u>	<u>0.0</u>	<u>18.0</u>
		8.0	2.0	18.0
Total Credit Hours		89		
(Includes Program Ready/Gen. Ed. courses)				

# RADIOLOGIC TECHNOLOGY

## MAJOR STUDIES:

## CREDITS:

RAD 101	Introduction to Radiologic Technology	2.0
RAD 130	Radiographic Procedures I	2.0
RAD 102	Patient Care Procedures	2.0
RAD 152	Applied Radiography I	2.0
RAD 110	Radiographic Imaging I	2.0
RAD 136	Radiographic Procedures II	2.0
RAD 165	Applied Radiography II	0.0
RAD 205	Radiographic Pathology	3.0
RAD 201	Radiation Biology	3.0
RAD 175	Applied-Radiography III	0.0
RAD 121	Radiographic Physics	4.0
RAD 115	Radiographic Imaging II	3.0
RAD 110	Radiographic Procedures I	2.0
RAD 256	Advanced Radiography I	0.0
RAD 225	Selected Topics	2.0
RAD 235	Radiographic Seminar I	1.0
RAD. 268	Advanced Radiography II	0.0
RAD 282	Imaging Practicum	3.0
RAD 236	Radiographic Seminar II	3.0
RAD 282	Imaging Practicum	2.0

## GENERAL STUDIES:

BIO 210	Human Anatomy & Physiology I	4.0
BIO 211	Human Anatomy & Physiology II	4.0
ENG101	English Composition I	3.0
CPT170	Computer Applications	3.0
PSY201	General Psychology	3.0
Elective	Humanities/Fine Arts	<u>3.0</u>

TOTAL CREDIT HOURS: 89.0

## COURSE DESCRIPTIONS

COURSE	TITLE	CREDIT	DESCRIPTION
RAD 102	Patient Care Procedures	2.0	This course provides a study of procedures and techniques used in the general care of the patient.
RAD 101	Intro to Radiologic. Technology	2.0	This course provides an introduction to Rad Tec with emphasis on orientation to the Radiology department, ethics, and basic radiation protection.
RAD 110	Radiographic Imaging I	3.0	This course provides a detailed study of the parameters controlling radiation quality and quantity for radiographic tube operation and image production.
RAD 115	Radiographic Imaging II	3.0	This course outlines a detailed study of primary and secondary influencing factors and accessory equipment related to imaging.
RAD 121	Radiographic Physics	4.0	This course introduces the principles of radiographic physics...incorporating theory and application of basic principles underlying the operation and maintenance of x-ray equipment
RAD 130	Radiographic Procedures I	3.0	This course provides an introduction to radiographic procedures. Positions of the chest, abdomen, and extremities will be included.
RAD 136	Radiographic Procedures II	3.0	This course provides instruction in radiographic procedures for visualization of the structures in the body.
RAD 152	Applied Radiography I	2.0	This course introduces the student to the clinical environment by providing basic instruction in the use of radiographic equipment and routine radiographic procedures.
RAD 165	Applied Radiography II	5.0	This course provides an environment which allows the student to continue to receive instruction in the use of radiographic equipment and performance of radiographic procedures within the clinical environment.
RAD 201	Radiation Biology	2.0	This course provides instruction in the principles of radiobiology and protection. It emphasizes procedures that keep radiation exposure to patients, personnel, and the population at large to a minimum.

RAD 205	Radiographic Pathology	2.0	This course provides a survey of disease processes significant to the radiographer including etiology, diagnosis, prognosis, and treatment
RAD 175	Applied Radiography III	2.0	This course provides the student the clinical education needed for building competence in performing radiographic procedures within the clinical environment
RAD 225	Selected Topics	2.0	This course includes instruction in necessary areas as specified by the Advisory Committee.
RAD 230	Radiographic Procedures III	3.0	This course provides instruction in special radiographic procedures.
RAD 235	Seminar I	1.0	This course provides instruction in selected areas of radiography that are unique or new to the field.
RAD 236	Radiographic Seminar II	2.0	This course provides instruction in selected areas of radiography that require additional study or application.
RAD 256	Advanced Radiography I	6.0	This course provides an environment for the student to function more independently while performing routine procedures in a working radiology department...while also being more involved in advanced radiographic procedures.
RAD 268	Advanced Radiography II	8.0	This course provides an environment which allows the student to improve competence in routine radiographic examinations, as well as advanced procedures...while containing to build self-confidence in the clinical atmosphere.
RAD 276	Advanced Radiography III	6.0	This course provides an environment which allows the student to gain the self-confidence and competence necessary in routine and advanced radiographic procedures in the clinical environment.
RAD 282	Imaging Practicum	2.0	This clinical course provides an opportunity for the Radiography student to explore career opportunity in Radiology and Advanced Imaging modalities.



**RADIOLOGIC TECHNOLOGY  
PROGRAM APPROXIMATE FEE SCHEDULE**

RAD 152 (Fall)	Insurance	\$25.00	
	Film Badge	\$35.00	
	SCSRT	\$35.00	
	Uniform	<u>\$270.00</u>	(includes shoes and 2 sets of radiographic markers)
	<b>TOTAL</b>	<b>\$365.00</b>	
RAD 165 (Spring)	Insurance		\$25.00
	Film Badge		\$40.00
	<b>TOTAL</b>		<b>\$65.00</b>
RAD 256 (Fall)	Insurance	\$25.00	
	Film Badge	\$40.00	
	<b>TOTAL</b>	<b>\$65.00</b>	
RAD 268 (Spring)	Insurance		\$25.00
	Film Badge		\$35.00
	<b>TOTAL</b>		<b>\$60.00</b>

**Additional Costs:**

Tuition:	Dependent on county of residence
Graduation Gown:	\$50.00
One-way CPR mask:	\$20.00
CPR book/certification	\$15.00
Background check/drug screen:	\$107.75

Physical Exam/Immunizations:      Dependent on student health care provider

		<b>FALL</b>	<b>SPRING</b>	<b>SUMMER</b>
Cost of books	(1 <sup>st</sup> year)	<b>\$500.00</b>	\$200.00	\$200.00
	(2 <sup>nd</sup> year)	\$150.00	\$100.00	\$125.00

## Admissions Requirements

The following items must be completed and turned into the Program Director upon entering the Radiology Program

- Physical examination completed with documentation turned in within first week of entering the program. This will include blood tests for immunization.
- Record of immunizations or immunity (dates of vaccinations &/or dates of titer) for:
  - Measles, Mumps, and Rubella X 2 (from shot record)
  - An MMR titer blood test and results must be submitted to program director with your physical form. You will request a titer for all three diseases at the time you are having your physical from your physician. This is a requirement of hospitals in the state of South Carolina and North Carolina.
  - Varicella (Chicken Pox) vaccination. Also, requires a titer blood test must be drawn on this as well and results submitted to program director.
  - Tetanus, must be up to date within last 5 years.
  - HBV (Hepatitis B Vaccination) either proof of 3 shot-series was begun
  - Documentation of Two-step Mantoux TB test-dates and results signed. Two tests must be completed to confirm negative result unless proof of previous two step TB test can be provided.
- Copy of current CPR certification American Heart Association is the only card accepted
- Copy of Valid Driver's License or State ID card
- Completion of all items associated with Castle Branch
- Completion of all educational and clinical requirements for MyClinical Exchange
- Completion of all educational and clinical requirements for HealthStream
- Required to complete a background check
- Required to complete a drug screen

Failure to submit required documentation by the deadline may result in losing a slot in the program.

Once enrolled in the program, the student must submit for any required drug screenings as determined by the clinical facilities and a criminal background check.

Acceptance and continuation in this program are contingent upon acceptance by the clinical facility for practicum training. If a student does not appear to be in good physical or mental health, as evidenced by his or her performance or behavior in the clinical practicum, a physical examination and a written report from a physician can be requested by the faculty.

## CLINICAL PLAN OF EDUCATION

**RATIONALE:** The primary aim of this entire curriculum is to prepare an individual to take the national board examination and for employment...that is educated in the professional, medical, technical, and patient care components of radiography. Of all the components, patient care should be the most important...without good patient care skills, the entire profession suffers.

The majority of a radiographer's time is spent on performance of radiographic and fluoroscopic examinations. In order to meet this criteria, students must gain competence/confidence in radiographic procedures. This includes not only routine radiographic examinations, but also exposure to the newer techniques and technology of radiography.

During the clinical phase of the program, the student will have an opportunity to rotate through each facility associated with the program...

- Self Regional – Main X-ray/Surgery/ER/Montgomery Center
- Self Regional - Imaging Center
- Self Regional – Orthopaedic Associates of the Lakelands
- Self Regional – Tower Pointe Imaging
- Abbeville County Memorial Hospital
- Newberry County Memorial Hospital
- Greenville Hospital Systems/Laurens County Hospital
- Edgefield County Hospital

Students will have an opportunity to rotate through the areas listed below during the course of the clinical portion of the program at various clinical sites.

- Diagnostic Procedures (General)
- Fluoroscopic
- Mobile / Surgical Radiography
- Second Shift (if needed)
- Weekend (if needed)
- ER
- Orthopedics

Additionally, students will have an opportunity to rotate through the areas listed below during the course of the clinical portion of the program at various clinical sites.

- Computed Tomography
- Ultrasound
- Nuclear Medicine
- Radiation Therapy
- Magnetic Resonance

Piedmont Technical College and the Instructors for the Radiology program realize the value and importance of students being in clinical and the knowledge that students will gain having hands on experience. Clinical attendance is a requirement because of the clinical competencies that are required to be completed before graduation. A clinical schedule will be distributed before the semester begins. All students are required to adhere to the clinical schedule time for clinical rotation.

Satisfactory clinical evaluations must be maintained in all clinical assignments. Clinical instructors may recommend to the Program Coordinator a probationary status for a student not performing to expectations in clinical.

Clinical instructors may also recommend to the Program Coordinator that a student be dismissed from the program for failing to meet clinical requirements.

Clinical Courses:    RAD 152        RAD 256    RAD165        RAD268        RAD 175  
                          RAD276        RAD 282

Grading Criteria: The lowest numerical grade for any RAD clinical course is 75. In clinical, if a student fails to demonstrate competency on procedures (practical or critique portion) on the first attempt, he/she must successfully remediate that procedure twice before being allowed a second attempt. Incomplete work for the semester will result in an "I" which becomes an "F" if not made up within 30 days at the beginning of the next semester.

The faculty will use the Piedmont Technical College grading scale (see catalog) unless otherwise stated in a Course Information link:

A:     94 - 100  
B:     85 - 93  
C:     75 - 84  
D:     70 - 74  
F:     69 and below

The lowest acceptable grade for all nursing and health sciences courses is C (75%). Final course grades will be computed out one decimal place. Then the final grade will be determined **without rounding so that 75.0 and above is passing but 74.9 and below is not.**

Because of the way the Radiologic Technology Program is designed, classes are only taught one time per year. If you are unsuccessful in a course, it will require you to withdraw from the program since you will be unable to proceed to the next sequential course. For example...Radiographic Procedures I (RAD 130.) is taught mini-A semester (Fall) and must be satisfactorily completed in order for you to begin the clinical phase of the program (RAD 152) mini-B semester (Fall). Satisfactory completion requires a grade of 75 or higher. If unsuccessful, you have the option of requesting re-admission to the program within the following year...if you are in good standing and there is space available.

Potential Radiologic Technology Students...please consider the following information to see if Rad Tech is the right curriculum for you. Did you know. . .

- There are “program ready” courses required for the Radiology program
- You must satisfy these requirements before becoming program ready
- You must maintain a 2.5 GPA to be considered program ready
- When your name comes up for the program entry, you will be required to complete a set of Health Records.
- To complete the program you are considered a full time student, this requires you to complete a prescribed set of courses each semester.
- The time commitment for the program is very demanding, a lot of time is spent in clinical each semester.
- The clinical rotation may require you to spend some hours on second shift and weekends.
- It is difficult to complete the program while holding a full-time job.
- Some clinical sites are out of the Greenwood area...travel is required for these clinical sites. You will need reliable transportation.
  
- You must average 75 or higher on every curriculum course to remain in the program. If you fail a course, you will not be allowed to continue but will have to place your name back on the waiting list for re-entry.
- You cannot enter the program more than two times.
- Program expenses are published under separate cover and are available to you at any time.
- Job placement information is available through the Placement Office, even though our placement record has been high, jobs are not guaranteed.
- Students must demonstrate performance competency (clinical internships) and the ability to pass exit (registry type) exams before graduating from the program.
- Students completing the program may choose to specialize or transfer to a four-year program of study for a BS degree.
- That you will be responsible for patient care which includes lifting, bending, stooping, giving enemas, etc.
- That you will be exposed to various body fluids, which may include vomit/blood/urine/feces as in any other health related program.
- That there is a uniform requirement for clinical

If you have questions/need additional information about the program, please contact the Program Coordinator...Lee Balentine at (864) 941-852





