

## **RADIOLOGIC TECHNOLOGY**

**Course Title:** APPLIED RADIOGRAPHY I  
**Course Prefix:** RAD 152  
**Lecture Hours:** 1.0  
**Lab Hours:** 3.0  
**Credit Hours:** 2.0

[Distance Learning Attendance/VA Statement](#)  
[Textbook Information](#)

### **COURSE DESCRIPTION**

This course introduces the clinical environment of the hospital by providing basic use of radiographic equipment and routine radiographic procedures. This course also provides an overview of the Radiologic Technology Program and its rules and regulations. It also provides an introduction to topics that will prepare the student for clinical assignments.

### **COURSE COMPETENCIES**

Upon successful completion of this course, the student should be able to complete the following tasks:

#### **Module I - Student Manual and Program Policies**

- Demonstrate in writing their understanding of the institutional and program policies and procedures of the Rad. Tech. Program and the clinical affiliates.
- Demonstrate in writing their understanding of the clinical competency evaluation system.
- Demonstrate in writing their understanding of the organization and relationship of the program, Radiology department, and hospital.
- Explain the requirements for attendance as stated in the Radiography program Student Manual for clinical and didactic portions of the program.
- Explain the process for temporary disability and "stopping out."
- Define issues resulting in specific disciplinary actions.
- Discuss and abide by academic integrity policy of program and college.

#### **Module II - Patient Assessment**

- Recognize positive and caring attitudes toward the patient.
- Recognize the medico-legal responsibility of the radiographer.
- Recognize various stages of disease/grieving process.
- Identify issues that influence patient fears.
- Discuss the processes in taking a patient history related to associated diseases.
- Discuss methods of communication and barriers to effective communication.
- Discuss the purpose, characteristics, and methods of patient assessment.
- Discuss cultural influences upon communication.
- Discuss use of the scientific process.
- Identify and use accepted terminology and abbreviations.

### **Module III - Darkroom & Image processing**

- Demonstrate correct darkroom and film handling techniques.
- Identify the different sizes/types of films/cassettes.
- Demonstrate the proper procedures for loading/unloading the different types and sizes of cassettes/grids with the correct type and size of film.
- Demonstrate the procedure used for imprinting proper identification and date on the radiographic film.
- Demonstrate the correct procedure of processing a radiographic film or CR image.
- Determine cause of image artifacts from mishandling.
- Operate CR workstation by entering patient data and selecting processing codes for CR image.
- Manipulate images within PACS system.

### **Module IV - TB Education**

- Demonstrate understanding of transmission of bloodborne pathogens such as HIV and Hepatitis B through successful completion of BBP training.
- Explain and demonstrate understanding of OSHA guidelines as they relate to general safety and universal precautions in Radiology Dept.
- Demonstrate understanding of transmission Tuberculosis by successfully implementing TB training.
- Define causes and influences for multi-drug resistant TB.
- Define various isolation methods for disease transmission.

### **Module V - Introduction to Radiographic Equipment**

- Determine the components and function of an x-ray imaging system and associated terminology and abbreviations.
- Discuss the types of radiographic equipment located at the clinical education centers.
- Differentiate between various types and uses of imaging equipment.
- Discuss components of technical factor formation and their influences upon image and patient exposure.

### **Module VI - Introduction to Radiation Protection**

- Define elements of the electromagnetic spectrum
- Define sources of radiation exposure in both environmental and medical settings.
- Discuss various types and strengths of radiation.
- Discuss radiosensitive organs.
- Identify cardinal principles.
- Demonstrate methods to reduce operator and patient exposure.

### **PERFORMANCE OBJECTIVES**

Completion of all core competencies with the program required minimum grade average for the course of 80% unless otherwise specified.

## COURSE REQUIREMENTS

All students are responsible for attaining competencies through the completion of the following course requirements:

- attending class
- reading assigned materials
- participating in class activities and labs
- completing CAI assignments
- successful completion of infection control training
- completion of all assigned tests

## ACADEMIC INTEGRITY

The policies stated in the *YTC Student Catalog and Handbook* and the *Radiologic Technology Student Manual* will be enforced. Any student violating the policies will be subject to academic discipline as stated in the Student Manual.

## ATTENDANCE POLICY

The attendance policy as stated in the YTC Student Catalog and Handbook and Radiologic Technology Student Manual will be enforced. Absences for the didactic courses of the Radiologic Technology program are limited to 10% of the scheduled meetings for the semester. Absences in excess of 10% will result in a grade of F and removal from the Radiography Program. **This course is a clinical course** and therefore allows for only 5% of absences from the scheduled class meetings as stated in the *York Technical College Radiography Program Student Manual*. Absences in excess of 5% for this course will result in a grade of F and removal from the program.

## GRADING PROCEDURES

A minimum grade of 80% is required on all unit tests. All students are required to take the final exam but may be exempt from its being averaged in their grade by one of two ways. Any student who fails a single unit test only and maintains an A average going into the final is considered exempt and does not have to use the final exam grade unless it is higher than their average. Also any student who has not failed a unit test at all regardless of their average is also exempt from being required to use the final exam grade unless it is higher than their average. All other students not exempt by one of these two methods will be required to take and use the grade as part of their final course average. Since this is a clinical course, the following grading scale applies:

GRADE	SCORE
A	93-100
B	86-92
C	80-85
D	70-79
F	Below 70

## **ENTRY LEVEL SKILLS**

A student entering this course must be enrolled in the Radiologic Technology Program.

## **PREREQUISITES**

None

## **CO-REQUISITES**

RAD 102, RAD 101, BIO 210 (or completion)

## **METHODS OF INSTRUCTION**

Principles will be introduced by the instructors through lecture, CD Rom, viewing video tapes, computer-based training, and demonstrations. Additional methods designed for remediation or enrichment will be individually tailored as needed.

**Disabilities Statement:** Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Offices (SR) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.