

Common Course Outline
RADT 230
Patient Care in Computed Tomography (CT)
4 Semester Hours

The Community College of Baltimore County

Description

RADT 230—4 credits—Patient Care in Computed Tomography (CT) introduces the student to CT and patient care in the CT suite. It focuses on patient care and radiation safety issues as they relate to CT. Classes cover topics in patient assessment, venipuncture, contrast agents, and radiation safety. This course is delivered both online and in a classroom setting with lectures and discussion.

4 credits: 4 lecture hours per week

Prerequisite: Admission into the CT Program

Overall Course Objectives

Upon completion of this course, the student will be able to:

1. educate the patient on general aspects of CT and the specifics of the CT procedure;
2. demonstrate the ability to take an accurate patient history;
3. describe the proper procedure for patient screening;
4. recognize and identify normal and abnormal laboratory values for renal function (e.g., BUN, creatinine, GFR), blood coagulation (e.g., PT, PTT, platelet, INR);
5. demonstrate on a mannequin the ability to gain venous access using sterile technique;
6. determine if contrast media is indicated for a specific procedure and name the route of administration;
7. demonstrate an understanding of contrast agents and their possible adverse reactions; and
8. state the goal of radiation protection and identify the responsibility of the CT Technologist for radiation protection.

Major Topics

- I. Introduction to Computerized Tomography
 - a. Introduction to clinical education
 - b. Infection control
 - c. Professional roles and responsibilities
- II. Patient Preparation
 - a. Communication
 - b. Immobilization and safety
 - c. Patient education
 - d. Scheduling and screening
- III. Patient Assessment
 - a. History
 - b. Monitoring
 - c. Lab values
 - d. Special considerations

IV. Venipuncture Procedures

- a. Site selection
- b. Aseptic and sterile technique
- c. Injection techniques
- d. Pharmacology

V. Contrast Agents

- a. Types
- b. Administration route
- c. Adverse reactions

VI. Radiation Safety

- a. Technical factors affecting patient dose
- b. Radiation protection
- c. Dose measurement
- d. Patient dose reduction

Course Requirements

Grading/exams: Grading procedures will be determined by the individual faculty member but will include:

4 discussion board postings

5 quizzes

2 tests

2 homework assignments

A comprehensive final exam will be given.

Writing: a minimum of 4 Discussion Board postings

Grading

A minimum score of 75% is required to pass this course. The American Registry of Radiologic Technologists (ARRT) has established a minimum scaled passing score of 75. The CT certificate program has developed standards of grading that are consistent with grading systems of other programs. Letter grades will be distributed according to the following standards:

92 - 100 A

83 - 91 B

75 - 82 C

65 - 74 D

below 65 F

Other Course Information

This course will be a hybrid course, taught partially online and partially in class.

This course is a required course in the CT certificate program within the Radiography department.

Date Revised: 1/28/10