

# **RAD 228**

## **Enhanced Patient Care for CT**

### **COURSE OUTLINE**

#### **Prerequisites:**

ARRT Registered or Registry Eligible

#### **Course Description:**

This course is designed to facilitate critical thinking skills for students during the delivery of CT examinations for patients of all ages.

Topics will include but not be limited to

- a. Patient Assessment and Care
- b. Contrast administration and safety
- c. CT of the Critically Ill Patient
- d. Radiation Safety Relating to CT
- e. CT Guided Interventional Procedures
- f. CT Angiography

**Semester Credits: 3**

**Lecture Hours: 3**



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## Course Outcomes:

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

1. Demonstrate appropriate patient care related to the modality.
  - a. Describe the key differences between adult and pediatric CT.
  - b. Differentiate between adult dosage and pediatric dosage for oral contrast media.
2. Describe steps to ensure patient safety during iodinated contrast media administration.
  - a. Calculate IV contrast dose for adults and pediatrics.
  - b. Explain the importance for adherence to power injector and injection safety protocols.
  - c. Recognize and assist in the management of potential adverse reactions from contrast administration.
3. Provide patient assessment, care, and assistance for interventional procedures.
  - a. Assist in patient monitoring
4. Manage the care and monitoring of the critically ill patient while performing CT examinations.
5. Manage radiation dose for adult and pediatric patients
  - a. Describe the radiation risks involved in the CT procedure
  - b. Explain factors controlled by the technologist that affect patient dose
  - c. Describe how radiation dose is measured in CT
  - d. Practice ALARA in the optimization of parameters during the performance of CT examinations.
  - e. Convey practices to minimize radiation exposure both to patients and to ancillary health care providers
  - f. Integrate standards for pediatric CT scanning into technologist practice
6. Prepare patient for CT Angiography
  - a. Indications
  - b. Contraindications
  - c. Imaging technique

Internet access required

Textbook: Various resources are utilized for this course. The student is encouraged to investigate topics for a fuller understanding of the content.

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## ASSIGNMENTS:

The student will read the assigned information, view the power point presentation on Blackboard, and complete the chapter quiz according to the due dates below. Please refer to the Assignments and Exam information listed under the Syllabus tab in Blackboard.

### I. Patient Assessment

- Contrast Media and Administration
- Pediatrics
- Sedation

### II. Patient Assessment

- Critically Ill
- Radiation Safety in CT
- ECG

### III. Interventional Procedures

- CT Angiography

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