

## **Course Description**

**RAT 1657 | Radiation Protection/ Quality Assurance | 1 credits**

Introduction to basic principles of radiation protection and safety in radiation therapy. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are included. Specific responsibilities of the radiation therapist are discussed, examined and evaluated.

## **Course Competencies**

### **Competency 1:**

The student will demonstrate the skills, procedures and knowledge required for effective quality management by:

1. Critique the safety in radiation oncology.
2. Distinguish between safe and hazardous equipment operation.
3. Discuss quality measures for computerized operation, data collection and reporting.

#### Learning Outcomes

- Solve problems using critical and creative thinking and scientific reasoning

### **Competency 2:**

The student will demonstrate the principles of radiation protection and safety for the radiation therapist by:

1. Describe the legal and ethical radiation protection responsibilities of radiation workers.
2. Differentiate between stochastic and nonstochastic effects of radiation exposure.
3. Explain techniques used to reduce unnecessary dose to the patient.

#### Learning Outcomes

- Solve problems using critical and creative thinking and scientific reasoning

### **Competency 3:**

The student shall be able to describe radiation health and safety requirements of regulatory agencies by:

1. State the exposure limits for occupational and nonoccupational individuals.
2. State the authority, boundaries and regulations of the state and national regulatory agencies.
3. Discuss the requirements and responsibilities of the radiation safety officer.

#### Learning Outcomes

- Solve problems using critical and creative thinking and scientific reasoning