

Course Description

RAT 2022 | Principles and Practices of Radiation Therapy 2 | 2 credits

This course is continuation of RAT 1021C. Students will be presented with an in-depth study of the principles of electron therapies, safety, quality assurance, and quality management in radiation oncology.

Course Competencies

Competency 1:

The student will demonstrate knowledge of the principles of radiation therapy as it relates to the management of neoplastic disease by:

- a. Discuss the role of radiation therapy in the management of all patient populations with benign and malignant diseases.
- b. Identify the treatment regimens and fractionalization schemes used in palliative disease management.
- c. Examine the role of surgical, radiation and medical oncology to include immunotherapy (biological therapy) and personalized medicine in the management of neoplastic disease.

Learning Outcomes

- Solve problems using critical and creative thinking and scientific reasoning

Competency 2:

The student will demonstrate the skills, techniques and knowledge required for the clinical planning of patient treatment by:

- a. Discuss the characteristics of the electron beam.
- b. Discuss electronic charting and image management in a radiation therapy department.
- c. Describe the clinical applications for moving beam techniques.

Learning Outcomes

- Solve problems using critical and creative thinking and scientific reasoning

Competency 3:

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

- a. Discuss quality improvement in radiation oncology.
- b. Explain the purpose, procedure and frequency for all QA and QM procedures in a radiation therapy department.
- c. Describe the procedure for assuring accuracy of manual and electronic records.

Learning Outcomes

- Solve problems using critical and creative thinking and scientific reasoning