

Common Course Outline

RTTT 214

Dosimetry II

3 Credits

The Community College of Baltimore County

Description

RTTT 214 – 3 credits – Dosimetry II builds on the knowledge gained in Dosimetry I by applying the theory and practice of optimal treatment planning.

3 credits

Pre-requisites: RTTT 212; Admission to the Radiation Therapy Program; this course is only offered in the spring semester

Co-requisites: RTTT 129, RTTT 204 and RTTT 208

Overall Course Objectives

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

1. compare configurations of multi-leaf collimation systems;
2. identify appropriate clinical applications for brachytherapy;
3. compare low dose (LDR) and high dose (HDR) brachytherapy;
4. perform manual calculations;
5. explain source localization;
6. describe optimization techniques used in computer-aided dose calculations;
7. identify appropriate clinical applications for using Intensity Modulated Radiation Therapy (IMRT);
8. describe the general flow of the IMRT process from patient immobilization through treatment delivery;
9. describe clinical applications of radiosurgery; and
10. summarize dose specification and prescription techniques for various radiation treatments.

Major Topics

- I. Brachytherapy
- II. Simulation
- III. IMRT
- IV. Radiosurgery
- V. Manual and Computer-aided Calculations

Course Requirements

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

Students will take a midterm and final exam

Students must pass their final exam with a 75% or higher

Students will complete weekly quizzes and assignments

Other Course Information

This course is a Radiation Therapy core course.

This course is part of a program sequence and offered in the spring only.

Date Revised: 02/25/12