COURSE NUMBER AND TITLE:
RAD 550-2 Medical Dosimetry Clinical III

COURSE DESCRIPTION:
This is the third course of a three course sequence. During the three course sequence, students will complete eight clinical rotations including Brachytherapy, Simulation, Gamma Knife, Treatment Aids, IMRT, External Beam, Physics, Special Measurements and QA. The length of these rotations varies from one to ten weeks. During this course students will perform one to two of these rotations depending on the rotation schedule. While in the clinical setting students will observe and work directly with a medical dosimetrist. Emphasis is given on learning and understanding the role and responsibilities of a medical dosimetrist in the clinical setting. This course is ten weeks in length. Prerequisite: A grade of “C” or better in RAD 535.

COURSE OBJECTIVES:
1. Demonstrate an understanding of the basic clinical concepts of medical dosimetry.
2. Demonstrate an understanding of theory and principles of operation of treatment planning computers.
3. Demonstrate an understanding of the different types of radiation production.
4. Understand and calculate radiation attenuation and decay.
5. Demonstrate an understanding of the different types of radiation detectors.
6. Demonstrate a basic understanding of treatment planning.
7. Demonstrate an understanding of the role of a medical dosimetrist.

TOPICAL OUTLINE:

1. Clinical rotations 100%
2. Perform clinical competencies
3. External beam calculations
4. Brachytherapy calculations
5. Physics procedures

PREREQUISITES: A grade of “C” or better in RAD 535.

TEXTBOOKS:

Required:

Optional: (Students typically use clinical sites’ copy)

GRADING SCALE:

<table>
<thead>
<tr>
<th>Score</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90-100</td>
<td>A</td>
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<tr>
<td>80-89</td>
<td>B</td>
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<tr>
<td>70-79</td>
<td>C</td>
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<tr>
<td>&lt;70</td>
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Note: An overall GPA of 3.0 or greater in all graduate coursework is required to successfully complete the Medical Dosimetry Program. This is a SIUC Graduate School Policy.