Course Outcome Guides  
Fall 2019

Course/Program Title: RAD 102 - Radiography II

Course/Program Team: Megan Dayhoff

Expected Learning Outcomes for RAD 102

STUDENT LEARNING OUTCOMES:

1. State the guidelines for and demonstrate safe operation of a radiographic unit.
2. Identify and define the interactions that produce x-ray photons.
3. Identify and define the interactions that occur between x-ray photons and the patient.
4. Define the units of radiation exposure and the methods by which radiation is measured, and identify exposure/dose limits for the general population and radiation worker/personnel.
5. Identify the accessories utilized to enhance the production of quality radiographic images and their function.
6. Define prime factors and explain the impact prime radiation exposure factors have on the production of quality radiographic images.
7. Understand various pathological processes and how technical factors must be adjusted to accommodate them.
8. Identify and compare various exposure control systems.

Assessment (How do or will students demonstrate achievement of each outcome?)

- Chapter Exams
- Chapter Quizzes
- Workbook Assignments
- Mid Term & Final Exams

Validation (What methods have you used or will you use to validate your assessment?)

- Completion of course with an average grade of 75% or higher.
- 85% of students will correctly answer designed final exam questions correctly.

Results (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)

- Percentage of students answering the following final exam questions correct

<table>
<thead>
<tr>
<th>Final Exam Question</th>
<th>FA 2019</th>
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<tbody>
<tr>
<td>#12 AEC</td>
<td>21/22= 95%</td>
</tr>
<tr>
<td>#29 ESE</td>
<td>22/22=100%</td>
</tr>
<tr>
<td># 40 Scatter</td>
<td>22/22=100%</td>
</tr>
<tr>
<td>#43 Compton interaction</td>
<td>22/22=100%</td>
</tr>
<tr>
<td>#46 Interactions</td>
<td>22/22=100%</td>
</tr>
<tr>
<td>#59 Subject Density</td>
<td>22/22=100%</td>
</tr>
<tr>
<td># 83 Grid</td>
<td>22/22=100%</td>
</tr>
<tr>
<td># 91 Distortion</td>
<td>22/22=100%</td>
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**Follow-up** (How have you used or how will you use the data to improve student learning?)
- I provide supplemental math worksheets and activities for the students to practice challenging math concepts in this course. These supplements seem to help the students master the application of appropriate formulas.

**Budget Justification**
(What resources are necessary to improve student learning?)
- No resources needed at this time.

MND/FA19