

<b>Course Outcome Guides</b> <b>Fall 2018</b>
--------------------------------------------------

**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

<b>Final Exam Question</b>	<b>FA 2018</b>	
#7 Scatter production	20/21= 95%	
#18 Subject density	19/21= 90%	
# 19 Photoelectric interaction	21/21 = 100%	
#20 Compton interaction	21/21= 100%	
#25 Attenuation	21/21 = 100%	
#40 ESE	20/21= 95%	
#44 Alignment	21/21= 100%	

#62 AEC	21/21= 100%	
#68 kVp setting	21/21= 100%	
#75 Beam	20/21= 95%	
#92 Foreshortening	21/21= 100%	
#93 Fixed kVp	15/21= 71%	

**Follow-up** (How have you used or how will you use the data to improve student learning?)

- This course was taught face-to-face this semester, rather than online as it had been done in previous years. Overall the students did quite well with the material. I intend to keep the course design the same and will continue to provide supplemental learning activities for the most challenging chapters (i.e. sample math problems for the students to learn the required formulas). I will spend more lecturing time reviewing fixed kVp systems in order to improve students' understanding.

**Budget Justification**

(What resources are necessary to improve student learning?)

- No resources needed at this time.

MND/FA18