Assessment: Course Four Column

Courses (HHS) - Radiology Technology

RAD 118:Electrical/Radiation Physics

Course Outcomes	*Assessment Measures*	*Results*	*Actions*
Proton, neutron and electron. - Discuss characteristics and function of a proton, neutron and electron. **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 09/13/2016	**Exam -** Radiograph Physics-Online Course Module #2 Exam: Structure of the Atom **Criterion:** 75% of the students will get this question correct.	**Reporting Period:** 2015-2016 **Criterion Met:** Yes All students scored 75% or above on the module 2 exam. All students, but 1, achieved greater than 95%. 100% passed (09/13/2016)	**Action:** This section is taught online. We do review this material in class, but I need to be more specific. (09/13/2016)
Processes of ionization and excitation. - Explain the processes of ionization and excitation. **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 09/13/2016	**Exam -** Radiograph Physics-Online Course Module #2 Exam: Structure of the Atom **Criterion:** 75% of the students will get this question correct	**Reporting Period:** 2015-2016 **Criterion Met:** Yes All students scored 75% or above on the module 2 exam. All students, but 1, achieved greater than 95%. 100% passed (09/13/2016)	**Action:** Continue to monitor this exam for direct correlation of questions and outcome of answers. (09/13/2016)
X-ray route, circuitry and equipment. - Identify and label x-ray route, circuitry and equipment. **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 09/13/2016	**Exam -** Radiograph Physics-Online Course Module #6-X-ray Circuitry Exam **Criterion:** 75% of the students will get this question correct	**Reporting Period:** 2015-2016 **Criterion Met:** Yes 1.All students received 75% or above. (09/13/2016)	**Action:** I will continue to use the in class drawing of the circuit and the module exam for assessment. They provide different demonstrations of knowledge. (09/13/2016)
	Assignment - Lab - Circuit drawing **Criterion:** 75% of the students will get this question correct	**Reporting Period:** 2015-2016 **Criterion Met:** Yes All students received 75% or above. (09/19/2016)	

Course Outcomes	Assessment Measures	Results	Actions
Electromagnetic spectrum - Describe electromagnetic spectrum **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 09/13/2016	**Assignment - Lab -** Radiograph Physics-Online Course Module #3-Electromagnetic Radiation **Criterion:** 75% of the students will get this question correct.	**Reporting Period:** 2015-2016 **Criterion Met:** No Two students did not meet the criterion (09/13/2016)	**Action:** Each student received remediation.This is important content and is repeated throughout the program. (09/13/2016)
	Exam - Final Exam: Questions #12 #12: The smallest quantity of any type of electromagnetic radiation is a(n) _____. **Criterion:** 75% of the students will get this question correct	**Reporting Period:** 2015-2016 **Criterion Met:** Yes All students answered this question correctly. (09/19/2016)	**Action:** The final exam was evaluated to assess student understanding of electromagnetic spectrum and all students received above 75% (09/19/2016)
Wavelength, energy and frequency. - Define wavelength, energy and frequency. **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 09/13/2016	**Exam -** Final Exam: Question #13 #13: If the wavelength of a beam of electromagnetic radiation increases by a factor of 2, then its frequency must _____. **Criterion:** 75% of the students will get this question correct	**Reporting Period:** 2015-2016 **Criterion Met:** Yes All students answered this question correctly. (09/13/2016)	**Action:** Continue to monitor this outcome. (09/13/2016)
X-ray production and properties. - Identify x-ray production and properties. **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 09/13/2016	**Exam -** Radiograph Physics-Online Course Module #8-Xray Production Question #1 **Criterion:** 75% of the students will get this question correct.	**Reporting Period:** 2015-2016 **Criterion Met:** Yes All students answered this question correctly. (09/13/2016)	**Action:** All students answered this question correctly, but one student failed the exam with a 67%. The student did have a review of the exam. Both the question and the exam should be used as an assessment of this criteria. (09/13/2016)
Production of bremsstrahlung and characteristic radiations. - Compare the production of bremsstrahlung and characteristic radiations. **Course Outcome Status:** Active **Next Assessment:** 2020-2021	**Exam -** Radiograph Physics-Online Course Module #8-Xray Production Question #2 What is the source of energy that results in characteristic photons?	**Reporting Period:** 2015-2016 **Criterion Met:** Yes All students answered this question correctly. (09/13/2016)	**Action:** All students answered this question correctly, but one student failed the exam with a 67%. The student did have a review of the exam. (09/13/2016)

Course Outcomes	Assessment Measures	Results	Actions
Start Date: 09/13/2016	**Criterion:** 75% of the students will get this question correct.		
Photon interactions - Discuss photon interactions with matter. **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 09/13/2016	**Exam -** Radiograph Physics-Online Course Module #9-Xray Interactions with matter Question #7- Which of the following involves the removal of an orbital electron from an atom of target tissue? 1. Classical 2. Compton 3. Photoelectric 4. Photodisintegration **Criterion:** 75% of the students will get this question correct.	**Reporting Period:** 2015-2016 **Criterion Met:** Yes All students answered this question correctly. (09/13/2016)	
Radiographic interaction - Discuss other properties in relation to the radiographic interaction and the final image. **Course Outcome Status:** Active **Next Assessment:** 2020-2021 **Start Date:** 09/13/2016	**Exam -** Radiograph Physics-Online Course Module #9-Xray Interactions with matter Question #7- Which of the following involves the removal of an orbital electron from an atom of target tissue? 1. Classical 2. Compton 3. Photoelectric 4. Photodisintegration **Criterion:** 75% of the students will get this question correct.	**Reporting Period:** 2015-2016 **Criterion Met:** Yes All students answered this question correctly. (09/13/2016)	**Action:** All students answered this question correctly, but two student failed the chapter exam. The students did have remediation. (09/13/2016) **Follow-Up:** The radiology program is getting new equipment for next year. This course will need to be reviewed due to the addition of physics experiments incorporating the new equipment capabilities. (09/19/2016)