

Washtenaw Community College Comprehensive Report

RAD 111 Fundamentals of Radiography Effective Term: Spring/Summer 2019

Course Cover

Division: Health Sciences

Department: Allied Health

Discipline: Radiography

Course Number: 111

Org Number: 15600

Full Course Title: Fundamentals of Radiography

Transcript Title: Fundamentals of Radiography

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: Course Change

Change Information:

Outcomes/Assessment

Objectives/Evaluation

Rationale: This course is being updated to revise a student learning outcome in anticipation of assessing the course. One of the learning outcomes (Operating fixed and mobile radiographic equipment and use accessory devices to produce diagnostic images) cannot be measured with the assessment tool specified or any other tool available because students are not operating radiographic equipment to take diagnostic images in this course, leaving only one learning outcome which can be assessed for this class using the current Master Syllabus. There will also be a change in textbooks used for the course.

Proposed Start Semester: Spring/Summer 2019

Course Description: This course is designed to prepare students to operate radiographic equipment in the clinical setting. Students will acquire the knowledge and skills needed when they operate basic fixed and mobile x-ray equipment and accessory devices that are used to produce quality diagnostic radiographic images. This course will include laboratory sessions which will integrate the theories of image production with the practical application of equipment operation using phantoms.

Course Credit Hours

Variable hours: No

Credits: 2

Lecture Hours: Instructor: 15 Student: 15

Lab: Instructor: 30 Student: 30

Clinical: Instructor: 0 Student: 0

Total Contact Hours: Instructor: 45 Student: 45

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Requisites

Prerequisite

Admission to the Radiography program

General Education

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Identify the function of fixed and mobile radiographic equipment and accessory devices that are used to produce quality diagnostic radiographs.

Assessment 1

Assessment Tool: Comprehensive Exam #7 on Blackboard

Assessment Date: Fall 2019

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Answer key

Standard of success to be used for this assessment: 80% of the students will score 70% or higher

Who will score and analyze the data: Departmental faculty

2. Identify the primary exposure factors that are used to produce diagnostic radiographs.

Assessment 1

Assessment Tool: Chapter 14 homework assignment administered through Blackboard

Assessment Date: Fall 2019

Assessment Cycle: Every Three Years

Course section(s)/other population: All

Number students to be assessed: All

How the assessment will be scored: Answer key

Standard of success to be used for this assessment: 80% of the students will score 70% or higher

Who will score and analyze the data: Departmental faculty

Course Objectives

1. Identify the basic components of fixed and mobile x-ray units, film processor, computed radiography system and accessory devices used to produce diagnostic radiographs.
2. Explain the function of the basic components of the fixed and mobile x-ray units, film processor, computed radiography unit and accessory devices used to produce diagnostic radiographs.
3. Identify the primary exposure factors that are used to produce quality diagnostic radiographs.
4. Operate radiographic equipment in a lab setting using phantoms.
5. Demonstrate the proper radiation protection protocols when using radiographic equipment in a lab setting.
6. Identify the geometric factors which control image magnification, distortion, and spacial resolution.

New Resources for Course

Course Textbooks/Resources

Textbooks

Bontrager, Kenneth. *Textbook of Radiologic Positioning & Related Anatomy*, 7th ed. Elsevier, 2005

Johnston, James, and Fauber, Terri. *Essentials of Radiologic Physics and Imaging*, 2nd ed. Elsevier, 2016

Bontrager, Kenneth. *Radiographic Positioning & Related Anatomy Workbook & Laboratory Manual*, 7th ed. Elsevier, 2005

Carlton, Richard, and Adler, Arlene. *Principles of Radiographic Imaging: An Art and Science*, 5th ed. Delmar, 2016

Manuals

Periodicals

Software

Equipment/Facilities

Other: OE 121 radiography lab

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Jim Skufis</i>	<i>Faculty Preparer</i>	<i>Nov 02, 2018</i>
Department Chair/Area Director: <i>Kristina Sprague</i>	<i>Recommend Approval</i>	<i>Nov 05, 2018</i>
Dean: <i>Valerie Greaves</i>	<i>Recommend Approval</i>	<i>Nov 14, 2018</i>
Curriculum Committee Chair: <i>Lisa Veasey</i>	<i>Recommend Approval</i>	<i>Jan 01, 2019</i>
Assessment Committee Chair: <i>Shawn Deron</i>	<i>Recommend Approval</i>	<i>Jan 03, 2019</i>
Vice President for Instruction: <i>Kimberly Hurns</i>	<i>Approve</i>	<i>Jan 03, 2019</i>