

Washtenaw Community College Comprehensive Report

RAD 270 Principles of Mammography Effective Term: Winter 2018

Course Cover

Division: Health Sciences

Department: Allied Health

Discipline: Radiography

Course Number: 270

Org Number: 15600

Full Course Title: Principles of Mammography

Transcript Title: Principles of Mammography

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:

Consultation with all departments affected by this course is required.

Course description

Outcomes/Assessment

Objectives/Evaluation

Rationale: RAD 270 is being updated as a blended course. The course description, SLOs and course objectives need to be updated to match what is listed in the RAD 270 blended course.

Proposed Start Semester: Winter 2018

Course Description: This is the first course in the mammography program for certified radiologic technologists. The history of mammography and a comprehensive review of breast anatomy, physiology, mammographic positioning protocols, specialized mammographic procedures and breast pathology will be presented.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 45 **Student:** 45

Lab: Instructor: 0 **Student:** 0

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

Enrollment Restrictions

Admission to the Mammography program

General Education

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Identify the historical events that lead to the evolution of mammography.

Assessment 1

Assessment Tool: Multiple-choice questions on the final examination

Assessment Date: Fall 2017

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections/All students.

Number students to be assessed: All students (maximum admission to the Mammography Program is 12 students).

How the assessment will be scored: Answer key.

Standard of success to be used for this assessment: 80% of the students will score 75% or higher on the outcome-related questions.

Who will score and analyze the data: Faculty

2. Identify the development and anatomy of the human breast.

Assessment 1

Assessment Tool: Multiple-choice questions on the final examination

Assessment Date: Fall 2017

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections/All students.

Number students to be assessed: All students (maximum admission to the Mammography Program is 12 students).

How the assessment will be scored: Answer key.

Standard of success to be used for this assessment: 80% of the students will score 75% or higher on the outcome related questions.

Who will score and analyze the data: Faculty

3. Classify the clinical signs and symptoms of pathological conditions of the breast.

Assessment 1

Assessment Tool: Multiple-choice questions on the final examination

Assessment Date: Fall 2017

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections/All students.

Number students to be assessed: All students (maximum admission to the Mammography Program is 12 students).

How the assessment will be scored: Answer key.

Standard of success to be used for this assessment: 80% of the students will score 75% or higher on the outcome related questions.

Who will score and analyze the data: Faculty

4. Identify the mammographic positioning protocols for standard and special projections of the breast

Assessment 1

Assessment Tool: Multiple-choice questions on the final examination

Assessment Date: Fall 2017

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students (maximum admission to the Mammography Program is 12 students)

How the assessment will be scored: Answer key

Standard of success to be used for this assessment: 80% of the students will score 75% or higher on the outcome related questions.

Who will score and analyze the data: Faculty

5. Differentiate the specialized diagnostic procedures used in breast imaging.

Assessment 1

Assessment Tool: Multiple-choice questions on the final examination

Assessment Date: Fall 2017

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: 12 students

How the assessment will be scored: Answer key

Standard of success to be used for this assessment: 80% of the students will score 75% or higher on the outcome related questions.

Who will score and analyze the data: Faculty

Course Objectives

1. Discuss the historical events that lead to the development of mammography.
2. Identify the pioneers in breast imaging and state their contributions.
3. List and state the function of the external anatomy of the breast.
4. List and state the function of the internal anatomy of the breast.
5. Identify benign and malignant conditions of the breast.
6. Compare normal and abnormal radiographic appearances of the breast as related to various pathological conditions and tissue types.
7. List and describe the proper positioning methods used during general mammography, mass localization, and needle localization.
8. Explain breast self-examination procedures and other detection and staging methods.
9. Identify positioning methods which ensure the lowest radiation dose to the patient while maintaining optimum image quality.
10. Explain procedures and equipment set-ups for needle localization, galctograms, and cyst aspirations.
11. Differentiate between routine positioning protocols and special procedures used for mammographic procedures.
12. Differentiate between screening and diagnostic mammography.
13. Identify clinical indications for breast tomography.
14. Describe the procedure for preoperative wire-localization and specimen radiography.
15. Explain the ductography procedure and its mammographic presentation.
16. State the purpose of breast fine needle aspiration cytology (FNAC).
17. State the protocol for a breast fine needle aspiration cytology (FNAC) procedure.
18. Explain the principles of a stereotactic biopsy.
19. List the factors that make stereotactic breast biopsy positioning challenging.
20. Define needle gauge, stroke margin, stereo pair, and biopsy.
21. Compare and contrast needle core biopsy and vacuum-assisted biopsy.
22. Name the parts and describe the process for using a biopsy instrument
23. Relate 3D thinking to X, Y, and Z coordinates.

New Resources for Course

There are no new resources required for this course.

Course Textbooks/Resources

Textbooks

Andolina, Valerie, Lille, Shelly. *Mammographic Imaging: A Practical Guide*, 3rd ed. Lippincott Williams & Wilkins. 2010. ISBN: 1605470317.

Manuals
Periodicals
Software

Equipment/Facilities

Level I classroom
Testing Center
Other: OE 121 Radiography Laboratory

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Connie Foster</i>	<i>Faculty Preparer</i>	<i>Mar 08, 2017</i>
Department Chair/Area Director: <i>Connie Foster</i>	<i>Recommend Approval</i>	<i>Mar 10, 2017</i>
Dean: <i>Valerie Greaves</i>	<i>Recommend Approval</i>	<i>Mar 14, 2017</i>
Curriculum Committee Chair: <i>David Wooten</i>	<i>Recommend Approval</i>	<i>Apr 05, 2017</i>
Assessment Committee Chair: <i>Ruth Walsh</i>	<i>Recommend Approval</i>	<i>Apr 06, 2017</i>
Vice President for Instruction: <i>Kimberly Hurns</i>	<i>Approve</i>	<i>Apr 11, 2017</i>