Salt Lake Community College

Mammography Course Syllabus

**Course and Credit Hours:** HS 2200,4 credits

**Name of Course:** Mammography

**Semester and Term:** Spring 2022

**Class Location and Time:** JHS 135 Thurs. (5-9 pm)

**Instructor and phone:** Shambray Waddoups (801) 918-7009

**Office Location:** By appointment only

**Mailbox Location:**                  JHS 059

**Email Address:**  [Shambray.waddoups@slcc.edu](mailto:Shambray.waddoups@slcc.edu)

**Consultation Hours:** By Appointment 

**Course Delivery:** Lecture/ lab

**Course Description:**This course covers breast anatomy, physiology and all mammographic positioning. Includes all Mammography Quality Standards Act mandated material and digital training. Emphasis on The American Registry of Radiologic Technologists mammography registry review content specifications.

**ARRT Mammography Examination:** Successful passing of the ARRT mammography registry examination is required to obtain a state of Utah mammographer license.

**Textbook:**None required

**Link or Instructions for Accessing Online Course Materials:** Material is accessed through canvas

**Library Link:**For a list of resources that support the course go to:

[http://libguides.slcc.edu/content.php?pid=16754 (Links to an external site.)](http://libguides.slcc.edu/content.php?pid=16754)

[https://www.arrt.org/pages/earn-arrt-credentials/credential-options/mammography (Links to an external site.)](https://www.arrt.org/pages/earn-arrt-credentials/credential-options/mammography)

**Prerequisite:** American Registry of Radiologic Technologists Certification (Radiologic Technologist)

**Co-Requisite:** HS 2215 Mammography Clinical.

**SLCC Student Learning Outcomes:**

SLCC is committed to fostering and assessing the following student learning outcomes in its programs and courses:

1. Acquire substantive knowledge
2. Communicate effectively
3. Develop quantitative literacies
4. Think critically & creatively
5. Become a community engaged learner
6. Work in a professional & constructive manner
7. Develop computer & information literacy
8. Develop lifelong wellness

**Course Learning Outcomes**

Upon completion of this course, the student will be able to:

1. Describe how various physical characteristics of the x-ray tube affect mammographic imaging, the design characteristics of mammography units, the digital acquisition, display, and informatics in mammography.

2. Students will learn the differences between regulatory laws and agencies such as Mammography Quality Standards Act, American College of Radiology, and the American Registry of Radiologic Technologists. Knowing these laws and agencies will provide knowledge about professional conduct in the industry.

3. Apply the American Registry of Registered Technologists standard guidelines including all the imaging parameters to perform high quality mammographic examinations.

4. Demonstrate quality patient care through the use of interpersonal communication skills to give pre-exam instructions, mammographic procedural instructions, appropriate rapport, defining the risks and implication for imaging, providing emotional support, and addressing physical and mental limitations.

5. Exhibit patient assessment for the signs and symptoms of breast cancer and indicate the different kinds of breast cancer treatment options, and supplemental imaging views.

6. Demonstrate how changes in kilovolt peak (kVp) and milliamperes per second (mAs) affect the mammographic imaging result.

7. Use effective interpersonal communication skills to help interpret medical information and provide other health-related education as needed.

8. Develop effective written communication skills to document patient interactions.

**Course Objectives:**

1. **Patient Interactions and Management**

* Describe the mammographer's role in giving pre-exam instructions.
* Describe the mammographic procedure including proper rapport, psychological and emotional support and addressing physical and mental limitations.
* Describe and perform patient education in mammography.
* Describe and perform patient assessment including the risks and implication for imaging.
* Describe the signs and symptoms of breast cancer.
* Explain the different kinds of breast cancer treatment options.
* Define content specifications required for the American Registry of Radiologic Technologist Mammography exam.

1. **Image Acquisition and Quality Assurance**

* Describe how various physical characteristics of the x-ray tube affect mammographic imaging.
* Describe the design characteristics of mammography units.
* Distinguish the differences between regulatory agencies such as Mammography Quality Standards Act, American College of Radiology and the American Registry of Radiologic Technologists.
* Describe the parameters in digital imaging that control resolution and contrast
* Describe newly emerging technologies used with digital mammographic imaging.
* Delineate the differences between imaging systems used to perform full-field digital mammography examinations.
* Describe and develop a comprehensive quality assurance program for digital mammography.
* Characterize the digital acquisition, display, and informatics in mammography.
* Describe the purpose and frequency of mammography medical physicist tests.
* Describe mammographic techniques and image evaluation.

3. **Anatomy, Physiology, and Pathology**

* Identify breast anatomy, physiology, and disease processes.
* Characterize the localization terminology of the breast.
* Identify external and internal anatomy of the breast.
* Describe the cytology of the breast.
* Describe mammographic appearance and reporting terminology.
* Describe benign pathology and the mammographic appearance.
* Identify characteristics of breast calcifications.
* Describe malignant pathology and mammographic appearance.

1. **Mammographic Positioning, Special Needs and Imaging Procedures**

* Describe special patient considerations and situations in mammography.
* Define interventional procedures of the breast.
* Explain advanced positioning technique for supplementary views, difficult patients, and implant patients.

**Tests and Quizze**s:

As per the Student Handbook, **tests must be taken on the day assigned at the designated time.  In the event the student will miss an exam, they must call or e-mail the instructor**PRIOR**to the designated test start time.  Phone messages are acceptable.**IF THE STUDENT DOES NOT CALL OR E-MAIL PRIOR TO THE TEST START TIME, the student must take the test with an automatic 50% deduction.

All missed tests and quizzes are to be made up by or on the 1st class day the student returns.  It is the student’s responsibility to initiate making up tests and quizzes.  If they fail to do so, they forfeit the opportunity to take the test or quiz.

**Attendance:**

A**ttendance in class is**extremely**important.  You are forming work habits and a reputation that will follow you into the professional environment.  You are expected to be present for all courses and participate in planned activities.  It is the responsibility of the student to obtain notes, handouts or assignments given on any missed day.**

**Student Responsibilities:**

Students are expected to complete reading assignments **prior** to scheduled class/lab times.  Students should have completed worksheets, etc. and be prepared to discuss the material knowledgeably.  If the student is having difficult in the course, it is the student’s responsibility to make arrangements with the Instructor.  Students are expected to be self-directed and motivated in identifying their learning needs associated with the course content.

**Assignments:**

Each assignment has a specific due date as noted on the course schedule. Late assignments will not be accepted.

Assignment descriptions are found on Canvas.

*There will be 10 module quizzes, 4 unit exams and one comprehensive final that will include information from the entire semester.*

*Class participation and professionalism*- As stated under attendance, each student is expected to be in attendance and on time, this also includes being attentive and contributing to class discussions. **The appropriate book should be brought to each class**(it is expected that you will look ahead to see which book/workbook you will need to bring). When class members are presenting, other students should be quiet and listening and when working in groups each student should add to the activity.

**Incomplete:**

Students must complete all requirements and receive a C grade or higher.

**Extra Credit:**

There are a two extra credit papers that are available.

**Class Procedure or Format:**

This course will utilize lecture and discussions, Power Point presentations, lab demonstration, and radiographic studies.  Additional information will be placed online and in the computer lab.

**Course Evaluation:**

* Module quizzes 20%
* Patient Interactions and Management Test 15%
* Image Production Test 15%
* Anatomy, physiology, and Pathology Test 15%
* Mammographic Positioning Test 15%
* Comprehensive final 20%

**Grading:**

95-100 A                         75-77 C

90-94        A-                        71-74          C-

87-89          B+                       67-70          D+

83-86          B                         64-66          D

80-82          B-                        Below 64      E

78-79C+

**Wireless Devices in the Classroom:**

The advent of technology use in the classroom as an instructional tool has caused both opportunities and distractions.  The expectations for this course are that you are engaged and present during class time, which means that you will be free from technological distractions.  Research has shown that these distractions cause individual inattentiveness and can make it difficult for other to stay focused on immediate discussions.  The following policies are in effect during our time together:

1. Cell phones, iPods/Pads, pages, High-Resolution DVR Spy pens with webcam, microphones, recorders or any other wireless devices (excluding ADA authorized devices) that may distract from the class are to be silenced before entering the classroom and may not be on the desk or person during class.
2. Wireless devices can be checked during class breaks outside the classroom.
3. If you are discovered reading/texting messages during class, you will be asked to leave the class and will be counted as absent for that class session.
4. You are expected to engage in discussion for the class. If you are discovered engaging in reading emails, surfing the web and engaging in other computer activities not directly related to class, you will be asked to leave the class and will be counted as absent for that class session.
5. You may not record or publish information from the class without written authorization from the instructor. If used without written authorization, you will have violated “Privacy/Intellectual Property Rights”.

**Emergency Evacuation Procedures:**

In case of an emergency situation, elevators should not be used as emergency exits.  All class members should exit through the nearest doors on the west side of the building, then proceed toward the round-about on the northeast side of the building. We will then verify that all students are accounted for and unharmed.  Please inform your instructor if you require assistance or accommodation during an evacuation.  The instructor will identify several students in the class that are willing to provide assistance.  If you have a disability, please notify your instructor and fill out an Evacuation Information Form.

The SLCC Department of Public Safety is using an app called the Crisis Manager to inform students and staff about Emergency Procedures.  The app allows SLCC to instantly update these procedures. To download this app go to the App Store or Google Play Store, type **SchoolDude CrisisManager**in the search box and click “Get” or “Install. For questions regarding the Emergency Procedures or downloading the app to your device, please contact Scott Jones at 801-957-4963 or [scott.jones@slcc.edu](mailto:scott.jones@slcc.edu).

**SLCC Institutional Resources:**

For information on SLCC Institutional Resources, please refer to the link on Canvas.

**Covid-19 Statements:**

Due to the uncertainties of COVID-19, course delivery (such as moving to online) is subject to change at any point during the semester if recommended or mandated by state/national government officials.

Salt Lake Community College is firmly committed to helping protect the health and safety of our students, staff and faculty, and to serving our communities. We are closely monitoring the changing situation due to the global pandemic and complying with Public Health guidance.

**ADA Disclosure:**

﻿﻿SLCC values inclusive learning environments and strives to make all aspects of the College accessible to our students. If you have a disability and believe you need accommodations to improve access to learning materials or the learning environment, please contact the Disability Resource Center: (phone) 801-957-4659; (email) [drc@slcc.edu](mailto:drc@slcc.edu); (website) [www.slcc.edu/drc](https://www.slcc.edu/drc/index.aspx).