



Course Syllabus: RADS 4753 Mammography

Robert D. & Carol Gunn College of Health Sciences & Human Services

Department of Radiologic Sciences

Course Information

Information	Description
Name	RADS 4753X10-Mammography (online or hybrid)
Credit	3 hours
Term	Fall 2026
Dates	August 24-December 4
Time Commitment	Students should expect to spend at least 9 hours per week on course material (15-week term)
Prerequisites	BSRS or Mammography Program acceptance

Professor

Kaye Mariani-Hall MSRS, RT(R)(M) Adjunct Instructor, Radiologic Sciences

E-mail: kaye.marianihall@msutexas.edu

Use this format in the subject line: 4913_your last name_topic of the message

I am a remote instructor, so e-mail is the best way to communicate with me. If I have not responded within 48 hours, please email me again. I will sit daily between 11:45AM-12:45PM (central time) to focus on checking and answering e-mails but will try to check throughout the day as well.

Campus Office location: Midwestern State University

3410 Taft Blvd

Centennial Hall 430M

Wichita Falls, TX 76309

Office hours: “In-office” visits if needed, will be carried out by phone or virtually using Zoom. Please make an appointment by e-mail.

Course Description

This course provides guidelines for performing mammographic examinations. Content includes positioning, quality assurance, patient education and pathology. Credit may be awarded to individuals who are registered in mammography by the ARRT.

This course provides the student with a portion of the educational and clinical requirements necessary to perform mammography exams as a qualified mammographer. This course contains five modules that will cover Patient Management, Anatomy and Physiology & Introduction to Positioning, Image Acquisition & Quality Assurance, Pathology & Treatment, Breast Density & Other Breast Imaging. Course content includes a non-clinical component with specific non-clinical coursework and a clinical component with a portion of the required clinical competencies for both the Mammography Quality Standards Act (MQSA) Initial Training and the American Registry of Radiologic Technologist’s (ARRT) Mammography certification exam requirements. Students must complete the Class Project Survey to be placed in clinical or non-clinical aspect of the course.

To fulfill ALL necessary requirements for MQSA Initial Training and eligibility to sit for the ARRT certification test this course must be completed concurrently *or* in addition to RADS-4763. Only the successful completion of both RADS-4753 and RAD-4763 will meet the above requirements. Non-clinical student may take this course independently and are required to complete all non-clinical assignments. Taking this course alone will not meet MQSA or ARRT requirements.

Course Objectives

Upon completion of this course, the student will know:

- The history and background of mammography
- How to explain the benefits of screening and early detection to patients
- The guidelines for screening, breast self-examination and clinical breast examination
- The etiology of breast cancer and how that relates to breast cancer
- The internal and external anatomy of the breast
- The mammographic appearance of normal breast verses benign and malignant processes
- The technologist’s role in acquiring quality mammography
- The established imaging requirements for the craniocaudal and mediolateral views
- The mammography equipment the proper use during an exam
- Identify the components of the digital mammography machine and their function
- How a digital mammography image is created, processed, stored, transmitted, and retrieved
- The purpose and scope of a quality assurance program
- The various surgical treatments and which are the best choice based on the diagnosis
- The differences in chemotherapy, hormonal therapy, and radiation treatment
- The meaning and mammographic appearance of breast density

- Other breast imaging modalities

Teaching Methodology

This course consists of Desire2Learn (D2L) modules, individual worksheet assignments, quizzes, a final exam and a course project.

Course Materials

Textbooks

Required

Required Textbook: Lille, S.L., Marshall, W.J., (2019). Mammographic Imaging: A Practical Guide (4th ed.) Wolters Kluwer. [ISBN 978-1-49635-202-6]

Other materials are included in the Introduction for each unit

Computer Requirements

You need access to an up-to-date computer with an internet connection in this course. D2L does not work well with Internet Explorer. Use a different browser when working in D2L. Also, Chromebooks will not work. Only Word documents will be submitted in this course. If using a MAC, documents can be saved as Word files.

Video: [How to save Apple Pages document as Microsoft Word file \(.doc & .docx\)](#)

Assignments

There are 5 Unit assignments worth 25% and 5 Unit quizzes worth 20%. There is a Course Project worth 30% and a Final Exam worth 25% of the final grade. These total 100, and grades are assigned based on the total number of points earned as listed below.

Evaluation

Grade Distribution

- 25% Unit Assignments
- 20% Unit Quizzes
- 30% Course Project
- 25% Final Exam

Grade Scale

- A=100-90

- B=89-80
- C=79-70
- D=69-60
- F=59 and below

Grading Cycle

All assignments are graded together as a group to maintain a higher level of consistency. Grading begins on the first business day after a due date, outside of university holidays and professional meetings, and is typically completed before the next due date. You may track your progress through the Gradebook in D2L.

Feedback

Feedback varies throughout the course. The News section of the course is where I will send messages to the entire class. It is best to set up your D2L account to receive an email notification (to the email of your choice) when News items are posted, so you do not miss critical updates.

1. Click the down arrow in the News section on the 4753 course home page
2. Select Notifications
3. Check the email address you wish to send email notifications to. If you need to change this, select "Change your email settings" and enter the new email address. This email address should be an email address you check frequently.
4. If you want to receive these updates on your mobile, select "Register your mobile."
5. Check the box next to "News - new item available" and then check any other boxes you wish to receive an email notification from.

You are welcome to email questions to clarify concepts or look for further explanations. If I encounter repeated questions, I will provide feedback or supplementary resources in the News section of the course so that everyone can benefit from it. You might look there first because your questions and answers may be located there. **Late Work Due Dates**

Most assignments are due on Tuesdays (see Important Course Dates above). Assignments must be submitted by 23:59 (11:59 pm) Central Standard Time on scheduled due dates in the course schedule. If a student fails to meet a deadline, the student will receive no credit for the assignment not submitted on time.

Emergency Extension

If you have a significant event such as a death in the family, illness, hospitalization, or other extenuating circumstances, email the professor at kimberly.onstott@msutexas.edu as soon as possible and on or before the scheduled due date. I will grant extensions on an individual basis. If an extension is granted, the following guidelines will typically be followed.

1. The assignment may be up to one week late and still qualify for full credit. After the one-week extension has passed, ten points per day can be deducted until the assignment is no longer worth any credit.
2. When the assignment is completed, the student must send a follow-up email to let the professor know it is ready to grade. Failure to notify the professor could lead to a grade of zero.

3. **Avoid End of Course Late Work:** Please note there are University deadlines for submitting grades at the end of the semester. Therefore, all work must be turned in at least a week before grades must be posted.
4. If a course includes interaction between students in the discussion board, and if extenuating circumstances will prevent the student from participating, an alternate assignment may be considered at the discretion of the professor.

HIPAA Requirement

Do not place ANY patient name on your assignments. Any proper name that appears on an assignment other than yours will be considered a HIPAA violation, and the assignment grade may be dropped to as low as a zero, depending on the severity of the violation.

Final Course Grade

A final course score of 70% is required to pass this course. Letter grades of "D" or "F" cannot be used for graduation and will require the course to be repeated according to the current radiology program policies.

Technical Difficulties

Occasionally, you may experience problems accessing D2L, accessing class files located within D2L, connecting with your internet service, or other computer-related issues. Make the professor aware of a technical problem as soon as possible. If a problem occurs on our end, such as D2L failure, then a due date extension will typically be granted. **However, remember that it is your responsibility to have (or have access to) a working computer in this class. Assignments and tests are due by the due date, and personal computer technical difficulties will not be considered a reason for the instructor to allow students extra time to submit assignments, tests, or discussion postings.**

Dropbox assignments that can be attached in an email should be emailed to the professor as soon as a problem is encountered. Failure to do so may result in lost points, regardless of connection issues.

For help options:

- For D2L issues, go online go to the [Distance Education Helpdesk](#)
- Call the Distance Education office at 940-397-4868 between 8 am and 5 pm.
- Use the D2L help link in D2L.
- Contact your professor.
- For other computer access issues, go to the MSU [Information Technology Website](#).

Attendance

This course is fully online for BSRS and modality Certificate students. You should be vigilant in logging in to D2L and expect to log in at least three times per week. Regular checks will ensure that messages from me are received promptly. This course has a schedule that will be strictly adhered to. See the Important Dates section above for specific due dates.

For BSRT non-registered technologist students, you have one required meeting on campus during the first clinical seminar day of the semester (see the course schedule for the date and time). Individual meetings may be scheduled during the other remaining seminar days.
Requesting a Withdrawal

The last opportunity to drop this course with a grade of "W" is 4:00 pm on October 30, 2023. The student must initiate all withdrawals. After this date, dropping the course results in a grade of "F".

In an emergency or extenuating circumstance, a student may request a grade of "Incomplete" before grades are submitted. If the professor grants the "Incomplete," the student has until thirty (30) days after the beginning of the next long semester to complete the course requirements. If the student does not meet the course requirements within the deadline, the grade of "Incomplete" will automatically convert into a grade of "F".

Special Needs

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable adjustments in its policies, practices, services, and facilities to ensure equal opportunity for qualified persons with disabilities to participate in all educational programs and activities.

The Office of Disability Services (ODS) provides information and assistance, arranges accommodations, and serves as a liaison for students, professors, and staff. In addition, the ODS has assistive devices such as books on tape, recorders, and adaptive software, which can be loaned to qualified individuals. A student/employee who seeks accommodations based on disability must register with the Office of Disability Services in the Counseling Center; Clark Student Center, Room 108. Documentation of disability from a competent professional is required.

Individuals with grievances related to discrimination or lack of accommodation based on a disability are encouraged to resolve the problem directly with the area involved. The Office of Disability Services for resolution will provide advice and assistance if the matter remains unresolved. The grievance procedure may be found in the Student Handbook and Activities Calendar.

The Director of the Counseling Center serves as the ADA Coordinator and may be contacted at (940)397-4618, TDD (940)397-4515, or 3410 Taft Blvd., Clark Student Center Room 108.

Administrative Process

Unresolved issues related to this course should be first addressed between the student and the course professor. If there is no resolution, students must follow this sequence:

1. Interim Department Chair – Dr. Lynette Watts (940-397-4575)
2. College Dean - Dr. Jeff Killion (940-397-4594)
3. Dean of Students – Matthew Park (940-397-7500)

Honor System

Honor System

RADS 4743 adheres to the [MSU Code of Conduct](#).

In particular, however small, academic dishonesty breaches academic integrity. Your participation in this course comes with the expectation that your work will be completed in full observance of the MSU Code of Student Conduct. You should consult the current Student Handbook for answers to any questions about the code.

All components of RADS 4743 are designed to represent the efforts of each student individually and are NOT to be shared, copied, or plagiarized from other sources. Therefore, when you submit your efforts for grading, you are attesting you have abided by this rule.

An online plagiarism and artificial intelligence screening service may be used in this course. Student assignments may be uploaded to the service to identify similarities to other student papers and published works and to detect AI-generated work.

Cheating includes but is not limited to

- ☐ Use of any unauthorized assistance in taking quizzes, tests, or examinations
- ☐ Dependence upon the aid of sources beyond those authorized by the professor in writing papers, preparing reports, solving problems, or completing other assignments
- ☐ The acquisition of tests or other academic materials belonging to the university faculty or staff without permission

Plagiarism includes but is not limited to

- ☐ The use of paraphrasing or direct quotation without correct citation in the text and the reference list
- ☐ The published or unpublished works of another person
- ☐ You may NOT submit papers and assignments you have previously submitted for this or any other course.
- ☐ Using materials generated by agencies engaged in "selling" term papers is also plagiarism.

Artificial Intelligence (AI)-Declaration of Generative AI in Academic Writing

For all writing assignments, the student will not use generative artificial intelligence (AI) to construct the content of the assignment. Doing so is similar to plagiarism, and the assignment may be subject to a grade of zero or failure of the course, depending on the severity of the incident. AI-assisted technologies should only be used to improve readability and language. If used, it is the responsibility of the student to carefully review and edit this content, as AI can generate incorrect, incomplete, or biased information. Using these technologies requires human oversight and control. Additionally, AI and AI-assisted technologies should not be listed as an

author or co-author or cited as an author. If the student uses AI-assisted technologies, a disclosure must appear at the end of the document in a separate section before the references, using the following format.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

Statement: *During the preparation of this work the author(s) used [NAME TOOL / SERVICE] in order to [REASON]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.*

Academic dishonesty will not be tolerated in this class. When unsure whether a situation will be interpreted as academic dishonesty, you should ask your professor for clarification. If you are guilty of academic dishonesty, a grade of zero (0) will be given for the quiz, assignment, etc. Cases may also be referred to the Dean of Students for possible dismissal from the University.

You are encouraged to review the tutorials and suggested websites for more information about plagiarism. If you have any questions about what constitutes plagiarism, please consult:

- ☐ The [University Academic Dishonesty Policy](#)
- ☐ The website [Plagiarism.Org](#), or
- ☐ The professor

Please Note

By enrolling in this course, the student expressly grants MSU a "limited right" in all intellectual property created by the student for this course. The "limited right" shall include but shall not be limited to the right to reproduce the student's work/project to verify originality and authenticity and for educational purposes. Specifically, faculty may submit student papers and assignments to an external agency to verify originality and authenticity and detect plagiarism.

Senate Bill 11/House Bill 1927

Campus Carry

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. The new Constitutional Carry law does not change this process. Concealed carry still requires a License to Carry permit, and openly carrying handguns is not allowed on college campuses. For more information, visit [Campus Carry](#).

Active Shooter

The safety and security of our campus are the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by MSU Police Department regarding the options and strategies we can all use to stay safe during difficult situations. For more information, visit [Safety / Emergency Procedures](#). In addition, students are encouraged to watch the video entitled "Run. Hide. Fight." which may be electronically accessed via the University police department's webpage: ["Run. Hide. Fight."](#)

If you have questions or concerns, please contact MSU Chief of Police [Patrick Coggins](#) by email at mpatrick.coggins@msutexas.edu.

Communicating with the Professor

Contact information for the professor is listed at the top of the first page of this syllabus. The professor prefers email, so there is a record of the communication, and often the professor is away from her desk.

4753_your last name_topic of message

Example: 4753_Smith_Title Page question

When there is a need to contact a student, the professor will use the student's students.mwsu.edu email account. The professor is not responsible for sending emails to any other email account (set up your email to forward messages to an email you often check to avoid potentially missing any correspondence). Likewise, faculty members will not be responsible for keeping up with other students' email addresses. If you have not established this account or you need help forwarding messages, do so as soon as possible by contacting [information systems](#).

The professor will respond or acknowledge all student communications within five (5) business days. If this time will be longer because the professor is out of town or for other reasons, a news item will be posted online in D2L for the class. Please always give the professor the time asked to respond before repeating your request. Always include your course number and topic in the email's subject line.

RADS 4753 Mammography Assignment Details

Order of Content

Students are required to complete the course content in the order presented in the course by the dates listed in the course schedule.

HIPAA requirement

Do not place ANY patient name on your assignments. Any proper name that appears on an assignment, other than yours will be considered a HIPAA violation and the assignment grade may be dropped to as low as a zero, depending on the severity of the violation.

Getting Started!

Review the course Welcome, course Syllabus, and look over the D2L layout. After reviewing the course syllabus and becoming familiar with the course layout, students will complete the Pre-course Survey.

Pre-Course Survey

After looking over the D2L Course Shell and the Syllabus, complete the Pre-Course Survey. The purpose of this survey is to become familiar with the layout of this course and to get an idea of where you are in your Mammography Program progress. This will give me some insight of what you may need guidance with throughout this course.

Modules & Unit Worksheets

Each unit has a reading assignment, a fill in the blank worksheet assignment and a corresponding ASRT Module that must be completed. Both make up the assignment grade for each unit. These are to be completed and submitted as instructed for each unit through D2L. Failure to complete both will result in deduction of points for the assignment. All assignments makeup 25% of the overall grade. Each unit assignment is weighted differently. Assignments must be received prior to the due date. Please see the class calendar for due dates. A zero will be recorded for assignments not submitted or meeting the deadline. Once graded the worksheet should serve as preparation and study material for the final exam and mammography certification exam if you are pursuing certification.

Unit Quizzes

Unit quizzes are given through D2L. These quizzes are open book, open note but you have time limits to complete them and must be prepared as there will not be enough time to research every answer. All quizzes together make up 20% of the overall grade. Each unit quiz is weighted differently and must be completed prior to the due date. Please see the class calendar for due dates. Unless there are extenuating circumstances quizzes may not be made up if missed and a zero will be recorded. Quiz grades and answers will be released after the deadline of each quiz.

When a student has reviewed a unit and is ready for the quiz, they will log on to D2L and receive a customized timed quiz consisting of randomized multiple choice questions.

It is important to know the module content before attempting the module quizzes because they are **timed**. Quiz questions will be from information learned in the units. Be sure to read all required reading assignments and perform all of the activities for each Unit.

If students have technical difficulties during a quiz, they should use the Help link at the top toolbar in D2L, contact the MSU Information Systems Support Staff (<https://msutexas.edu/it/>), and send an email to the course instructor explaining what happened. Screen shots and/or taking a picture of your screen may help in diagnosing the problem.

If a student finds a faulty quiz test item or believes that a quiz question has been scored incorrectly, he or she should send an email to the course instructor that includes the following:

- Module Quiz Number (I -VI)
- Answer the student thinks should be correct

- Rationale supporting why the student's answer is correct
- Page numbers must be included when referencing the textbook in a rationale

After reviewing the case, if the course instructor thinks a revision is justified, the student's quiz score will be revised to reflect the additional points and the test bank will be updated.

Course Project

All students are required to complete the Mammography Course Project for RADS-4753. There is the Clinical Project for students seeking a clinical pathway and the Non-clinical Project for those seeking a non-clinical pathway.

These projects have several components that require research and citations of references. To determine which project to follow, each student is required to complete the Class Project Survey located in the Read First folder in D2L. There is a deadline to complete this survey. Both the Clinical Project and the Non-clinical projects are weighted equally and make up 30% of the overall grade. All projects must be uploaded to the drop box on or before the project deadline. Please see the class calendar for due dates.

As part of the course project, each student will be developing a 4-10-minute research presentation.

- For hybrid students, you will be presenting when you come to campus. Upload your completed presentation to the dropbox no later than 48 hours before your presentation is given during the oncampus seminar.
- For online BSRS students, you will be recording your presentation and uploading it to the discussion board for peer review.

The topic must be chosen from the list in the project instructions and will cover either one pathology OR one treatment listed. Microsoft Office PowerPoint (or other presentation software) is necessary to complete this section of the project. Correct citation of references is required. The student must discuss each of the elements listed in the course project to receive maximum points for the assignment.

Seminar for Hybrid Students Only

(BSRT classification-entry-level students who are Not registered technologists)

For BSRT students, there will be three seminar days that are scheduled around the clinical education seminars. These times are meeting times to discuss and ask questions about your progress in the course. You must be present for the entire time during all three seminar days. There will be no excuses made for work or other activities, so be sure to schedule appropriately. If you have a valid excuse (i.e., you are ill, family emergency, etc.) notify your professor as soon as you are able. An alternate assignment or some sort of accommodation will be considered on a case-by-case basis.

Students must attend three class sessions on campus. These dates are posted in the class schedule. There is a 5 % penalty on the semester grade for each session missed. Also, if a student misses the session they were to present, they will lose those points. Students should dress appropriately for the on-campus sessions. Official MSU scrubs or business casual attire is acceptable.

Comprehensive Final Exam

The final exam is a comprehensive proctored exam and will be administered within D2L. The Proctored Final is to be taken without the benefit of books, notes or references and by using LockDown Browser, Respondus Monitor and a webcam for online exams. The final exam contains 100 questions from all five units and is 25% of the overall grade.

Watch this brief video to get a basic understanding of LockDown Browser and the webcam feature.

<https://www.respondus.com/products/lockdown-browser/student-movie.shtml>

Download Instructions

- Select the quiz in the course
- Under Quiz Requirements you will see "To take this quiz you must use the Respondus LockDown Browser"
- Below this will appear: "You can use the button below if you have not already downloaded Lock Down Browser". Click the button to go to the download page and then follow the instructions
- Use the link to download Respondus LockDown Browser to your computer; follow the installation instructions
- Return to the Quiz page in Brightspace (it may still be open in another tab) and select the quiz)
- Select "Launch LockDown Browser"
- The quiz will now start
- **Note:** LockDown Browser only needs to be installed once to a computer or device. It will start automatically from that point forward when a quiz requires it.

Guidelines

When taking an online quiz, follow these guidelines:

- Ensure you're in a location where you won't be interrupted
- Turn off all other devices (e.g. tablets, phones) and place them out of reach
- Before starting the test, know how much time is available for it, and that you've allotted sufficient time to complete it
- Clear your desk or workspace of all external materials not permitted - books, papers, other devices
- Remain at your computer for the duration of the test
- If the computer, Wi-Fi, or location is different than what was used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again prior to the exam
- To produce a good webcam video, do the following:
 - Avoid wearing baseball caps or hats with brims
 - Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move
 - If using a built-in webcam, avoid readjusting the tilt of the screen after the webcam setup is complete
 - Take the exam in a well-lit room, but avoid backlighting (sitting back to a window)
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted

Technical Problems

Several resources are available if you encounter problems with LockDown Browser:

- The Windows and Mac versions of LockDown Browser have a "Help Center" button located on the toolbar. Use the "System & Network Check" to troubleshoot issues. If an exam requires you to use a webcam, also run the "Webcam Check" from this area
- Respondus has a Knowledge Base available from support.respondus.com. Select the "Knowledge Base" link and then select "Respondus LockDown Browser" as the product. If your problem is with a webcam, select "Respondus Monitor" as your product
- If you're still unable to resolve a technical issue with LockDown Browser, go to support.respondus.com and select "Submit a Ticket". Provide detailed information about your problem and what steps you took to resolve it.

Mammography Certificate Program Students

If you are in the Mammography Certificate Program, once you have completed both courses and your Mammography clinical experiences, send your proof of completed experiences to the MSU Radiology Department so that you may receive your Certificate in Mammography from MSU. These clinical experiences can be logged on paper forms or they may be printed from the ARRT website. Good luck on your Mammography registry exam!

If you are not quite finished with your clinical experiences, or if you will be taking your registry at a later date, this course will cover your ARRT didactic requirements for 2 years. If you need any help, advice, or anything else while you are completing your clinical experiences or while you are studying for your mammography registry exam I am always here to help so do not hesitate to contact me. I will do my best to help you in reaching your goals!

All course requirements must be completed before a grade is awarded. Students must complete the final project and all course work by the dates published in the course schedule.

Scroll down for the Course Schedule.

Course Schedule

Date	Activity (All times are Central Standard Time (CST))
August 24	Classes begin
September 4	Introductions due Clinical Site Information Form due by 23:59
September 11	Unit 1 Worksheet Assignment Due by 23:59
September 25	Unit 1 Quiz Due by 23:59
September TBD	BSRT (non-registered entry-level students-hybrid) Only Seminar time/date TBD (Required of all BSRT students) (BSRS classification-registered technologists- online students will Not come to seminar)
October 2	Unit 2 Worksheet Assignment Due by 23:59
October 9	Unit 2 Quiz Due by 23:59
October 16	Unit 3 Worksheet Assignment Due by 23:59
October 23	Unit 3 Quiz Due by 23:59
October 30	Unit 4 Worksheet Assignment Due by 23:59
November 6	Unit 4 Quiz Due by 23:59
November 13	Unit 5 Worksheet Assignment Due by 23:59
November 20	Unit 5 Quiz Due by 23:59
November 25	Last Day for "W" for Long Semester and Part of Term B Last, 4:00 p.m. Drops after this date will receive grades of "F.")
November 30	Mammography Course Project Due by 23:59
December 4	Classes Officially End
Dec. 5-10	Final Exam Open due by 23:59 December 10th

Information contained in the course syllabus, besides the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.