

# Midwestern State University

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

The Shimadzu School of Radiologic Sciences

Revised August 2020

Course Number: RADS 4753 3 credits Fall 2020

Course Title: Mammography

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# Course Overview:

The purpose of this course is to provide the technologist with guidelines for performing quality mammography examinations. Content includes the historical background of breast cancer and technical evolution of mammography to include digital technology, essentials of the “Imaging Chain,” patient education, and introduction to quality assurance, troubleshooting, instrumentation, positioning, and pathology.

# Course Objectives:

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

* Identify risk factors for breast cancer
* Describe breast disease signs and symptoms, diagnosis, and treatment options
* Discuss the guidelines for mammography screening, breast self-examination, and clinical breast examination
* Compare the risks to the benefits of mammography
* Identify and discuss the anatomy, physiology, and pathology of the breast
* Explain mammographic technique needed to obtain quality breast images and resultant diagnosis
* Describe basic positions/projections utilized to image the breast
* Modify these positions/projections based upon patient and physician need
* Discuss mammography image receptors
* Discuss the advantages of digital imaging mammography
* Describe how a digital image is created and processed
* Discuss quality assurance for full field digital mammography
* Identify networking and hardware components for digital mammography imaging
* Define terms used to manipulate the image for individual digital images
* Understand how digital breast tomosynthesis is perfomed and the benefits of
* Discuss basic additional diagnostic procedures and breast cancer treatments

# Textbook:

Andolina, V.F., Lille, S.L. (2011). *Mammographic Imaging: A Practical Guide*

(4th ed.). Lippincott Williams & Wilkins. [ISBN 978-1-49635-202-6]

American Psychological Association, (2020). Publication Manual of the American

Psychological Association (7th ed.). Washington, DC: Author.

[ISBN 978-1-4338-3216-1]

# Communication with the Instructor:

Communication will be through the student’s Midwestern State University email account. An email account is created for every MSU student. If you have not accessed this account yet, please do so by logging into the Portal and clicking the student email account icon located in the Portal.

You have the option to have any messages sent here to be forwarded to the email account of your choice.

The instructor will respond or at least acknowledge email messages from students within a maximum of five (5) business days when MSU is in session. Beyond standard university holidays and breaks, the instructor will notify students of any extended periods of time when email contact is not practical (professional meetings, etc.).

**When emailing the instructor, please include your full name, course and section number, and a thorough explanation in your message. This will help expedite your request or needs.**

# Class Meeting Date and Time:

Since this is an online course, there are no mandatory face-to-face sessions. However, the student should be vigilant in logging into D2L. Regular checks will ensure messages from the instructor are received in a timely manner. This course is on a schedule that will be strictly adhered to. See the Course Schedule at the end of this syllabus for specific information about activities and due dates. The instructor will be available to meet face-to-face with any interested students. This meeting is optional and must be confirmed by email ahead of time with the instructor.

Students should check for class announcements on the course website in D2L. This course also includes an UNGRADED discussion board on D2L so students may post questions they want the instructor to answer. The entire class will benefit from the answers. Students should check the Instructor Discussion Board at least once per week.

# Methodology/Teaching Strategies:

Online delivery with asynchronous interactions between students and teacher, and application activities.

# Evaluation Method:

| **Percentage Distribution** | **Value** |
| --- | --- |
| Module Quizzes | 35% |
| Student Project/Case Study | 30% |
| Comprehensive Final Exam | 35% |

# Grading Scale:

| **Grade** | **Range** |
| --- | --- |
| A | 90-100 |
| B | 80-89 |
| C | 70-79 |
| D | 60-69 |
| F | 59 or less |

**The last opportunity to drop this course with a grade of “W” is 4:00pm December 4, 2020.** Please refer to the Undergraduate Bulletin for details about receiving a grade of “Incomplete” in a course.

In an emergency or extenuating circumstance, a student may request a grade of “Incomplete” in a course before grades are submitted.

If the instructor 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 complete the course requirements within the deadline, the grade of “Incomplete” will automatically convert into a grade of “F.”

# Student Responsibilities:

As a student enrolled in this course, you will be responsible for adhering to and meeting posted deadlines and due dates. All activities for this course are listed at the end of this syllabus.

Activities such as quizzes have expiration dates. Please take note that expiration dates for quizzes will differ from deadlines for assignments and activities.

Quizzes and assignments/activities are spaced out in a manner that will allow you ample time to complete them. Assignments/activities will be accepted on or before the posted due date and deadline. **No late assignments/activities will be accepted.** If a student cannot complete a course activity by the indicated due date, the student must contact the course instructor immediately. Please note that late submissions will not be graded; students must contact the instructor for approval for late submissions. If a student has emergency issues, then the student must contact the instructor as soon as possible (within a day or two). Any activity not completed and submitted by the due date will be addressed on an individual basis.

**Students must use baccalaureate level writing skills including complete sentences, correct grammar, and proper punctuation. All assignments will be graded for accuracy, completeness, quality, spelling, grammar, and integrity.**

All assignments will be submitted in a dropbox within D2L. All assignments will be completed in Times New Roman or Arial, 12 point font.

See the course calendar for the specific due date.

# Assignments/Quizzes:

In each of the units a quiz will be given within D2L. These quizzes are open book, open note but you will only have one hour to complete them and must be prepared as there will not be enough time to research every answer. Quizzes must be completed prior to the expiration date below. Quiz grades and answers will be released after the deadline of each quiz. Specific questions regarding the quizzes may be addressed to the instructor. **Quizzes MAY NOT be made up if missed and a zero will be recorded.** No extra credit activities are available.

Assignments are a significant portion of the grade and represent application of the material studied. All assignments are to be submitted as instructed in each unit. Points will be deducted for improper format. Proper APA format must be used where appropriate. Plagiarism will be graded harshly. Assignments must be received prior to the deadline. A zero will be recorded for assignments not submitted or meeting the final deadline.

# Case Study Assignment:

Each student will complete a case study assignment. This will be a narrated presentation. A template is provided within the course contents. The template is a Power Point presentation but you may also use Prezi. Please refer to this template for detailed instructions when preparing this case study. The minimum number of slides required is 10 and the maximum number of slides allowed is 15. The case study topic will be approved by the instructor. **Please choose a breast pathology that can be seen on some modality of radiographic imaging.** Please submit your topic in the Discussion Forum titled Case Study Topic Approval by the due date listed. The completed Case Study must be uploaded onto YouTube and the link must be submitted into the Case Study Dropbox by the due date indicated on the course calendar. All assignments submitted will be considered complete and graded as such. Complete instructions can be found within D2L.

# Comprehensive Proctored Final Exam:

The final exam is a comprehensive proctored exam and will be administered within D2L. **IT IS TO BE TAKEN WITHOUT THE BENEFIT OF BOOKS, NOTES, OR REFERENCES OF ANY KIND.** All students are REQUIRED to have a webcam & microphone for the Final Exam. **This final will use the Lockdown Browser and Respondus Monitor found in D2L. PLEASE NOTE: CHROMEBOOKS ARE NOT COMPATIBLE WITH THIS SOFTWARE AND CANNOT BE USED FOR THE FINAL EXAMINATION.**

# 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 Support Services (DSS) provides information and assistance, arranges accommodations, and serves as a liaison for students, instructors, and staff. The DSS has assistance devices such as books on tape, recorders, and adaptive software which can be loaned to qualified individuals. A student/employee who seeks accommodations on the basis of disability must register with the Office of Disability Support Services in the Clark Student Center Room 168 or call 940-397-4140 for more information. Documentation of disability from a competent professional is required.

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

The ADA Coordinator may be contacted at (940) 397.4140, or 3410 Taft Blvd., Clark Student Center Room 168.

# Conduct/Honesty/Honor System:

RADS 4753 adheres to the MSU Code of Conduct. In particular, academic dishonesty, however small, creates a breach in academic integrity. A student’s participation in this course comes with the expectation that his/her work will be completed in full observance of the MSU Code of Student Conduct. A student should consult the Student Handbook for answers to any questions about the code.

Students are encouraged to take full advantage of many resources available including Internet sites, handouts, other textbooks & journals, faculty, and peers. This interactive collegial learning environment is conducive to life-long learning.

Specific components of RADS 4753 are designed to represent the efforts of each student individually and are NOT to be shared. These components include the written assignment submitted for a grade. Submitting someone else’s work as your own or improperly cited work constitutes plagiarism. Please see the Midwestern State University Catalog for further discussion of plagiarism. Plagiarism will constitute in an F for the course and the student will be referred to administration for further action. When students submit their efforts for grading, they are attesting they abided by this rule. **Quizzes and exams are not to be copied in any form or shared in any form. Students caught engaging in such activity will receive an F for the course and be referred to University administration for dismissal.**

Cheating includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or completing other assignments; or (3) 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, by paraphrase or direct quotation without correct citation in the text and on the reference list, the published or unpublished works of another person. Students may not submit papers and assignments that they have previously submitted for this or other courses. The use of materials generated by agencies engaged in “selling” term papers is also plagiarism. Students are encouraged to review the tutorials and suggested websites for more information about plagiarism.

By enrolling in this course, the student expressly grants MSU a limited right in all intellectual property created by the student for the purpose of this course. The limited right shall include but shall not be limited to the right to reproduce the students work product in order to verify originality and authenticity, and for educational purposes.

# Campus Carry Policy:

Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus, effective August 1, 2016. Areas excluded from concealed carry are appropriately marked, in accordance with state law. For more information regarding campus carry, please refer to the University’s webpage at [Campus Carry Policy](https://mwsu.edu/campus-carry/rules-policies)

# Writing Proficiency Requirement:

All students seeking a Bachelor’s degree from Midwestern State University must satisfy a writing proficiency requirement once they’ve earned 60 hours. You may do so by passing either the Writing Proficiency Exam or English 2113. Please keep in mind that, once you’ve earned over 90 hours, you lose the opportunity to take the $25 exam and have no option but to enroll in the three-credit hour course. If you have any questions about the exam, visit the Writing Proficiency Office website at [Writing Proficiency Exam](http://academics.mwsu.edu/wpr), or call (940) 397-4131.

# Administrative Process:

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

1. Interim Department Chair: Dr. Beth Vealé (940) 397.4611

2. College Dean: Dr. Jeff Killion (940) 397.4594

3. Dean of Students: Matthew Park (940) 397.7500

# Tentative Course Schedule

| **Date** | **Activity**  **All assignments are due by 11:59pm CST on the indicated due date** |
| --- | --- |
| August 22 | Classes begin |
| September 14 | Module 1 Quiz |
| September 21 | Case Study Topic Approval Deadline |
| October 5 | Module 2 Quiz |
| October 26 | Module 3 Quiz |
| November 16 | Module 4 Quiz |
| November 23 | Case Study |
| November 24 | **Final Exam Opens @ 7:00am** |
| December 7 | **Final Exam Closes @ 11:59pm** |