

# Gunn College of Health Sciences and Human Services Department of Radiologic Sciences Bachelor of Science, Radiologic Technology Program Course Syllabus - Dr. Rodney Fisher

MIDWESTERN STATE UNIVERSITY

# RADS 4853 Essentials of Forensic Medical Imaging

## **Course Information**

Name RADS 4853x20-Essentials of Forensic Medical Imaging (online)

Credit 3 hours

Term Spring 2023

**Dates** January 17, 2023 – April 25, 2023

Time Commitment

Students should expect to spend at least 9 hours per week on course

material in a 15-week term or 12 hours per week in a 10-week term

**Prerequisites** None

#### **Professor**

Rodney Fisher, PhD, R.T. (R) (N) (CT) (BD), CNMT

**Assistant Professor, Radiologic Sciences** 

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**Office:** Midwestern State University

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Wichita Falls, TX 76309

Office hours: Student Specific: Mondays & Wednesdays  $9:30 \,\text{AM} - 11:00 \,\text{AM}$ , Tuesdays  $1:00 \,\text{PM} - 3:00 \,\text{PM}$ , and by appointment. Appointments always take preference over walk-ins. If calling, please email for a time first.

# **Communicating with the Professor**

I prefer email so there is a record of the communication and often I am away from my desk. Phone calls may be answered by email when appropriate. I will respond or at least acknowledge all student communications within five (5) business days. If this time period will be longer because I am out of town or for another reason, a news item will be posted online in D2L for the class. Please always give me the time asked for to respond before repeating your request.

# **Course Description**

This course presents the essentials of forensic medical imaging including evidence handling, autopsy, virtopsy, investigational radiography on living subjects, and anthropological radiography.

# **Course Objectives**

Upon completion of this course, the student will:

- Explain the history of forensic imaging.
- Describe how to preserve evidence and the chain of custody.
- Discuss imaging techniques for forensic radiography.
- Identify common pathology imaged for forensic investigations.
- Discuss emerging trends in forensic imaging including virtopsy.

# **Teaching Methodology**

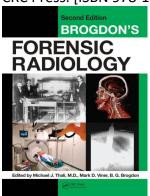
Independent reading assignments; D2L module tests; directed discussion boards, and a choice of a literature review as either a paper or poster project.

## **Course Materials**

# Textbooks

## Required

Thali, M.J., Viner, M.D., & Brogdon, B.G. (2010). *Brogdon's forensic radiology* (2<sup>nd</sup> Ed.). Boca Raton, FL: CRC Press. [ISBN 978-1-4200-7562-5] Note: Either hardback or ebook is acceptable for this course.



This book can be special ordered from the MSU Bookstore for approximately \$215.00. However, an electronic version can be obtained from Amazon for around \$25.00 for a three-month rental or around \$50.00 to purchase.

## Required

## MedOne Radiology

This online resource is free to MSU students. Access MedOne Radiology through the Moffett Library online databases. Log in to the MSU portal and access the Library Resources. Under the Research Databases tab click on Health Sciences and scroll down to MedOne.

MedOne Radiology is a comprehensive online reference for all medical imaging specialists. It provides extensive case libraries and diagnostic guidance for those in training, and essential references and procedural guidelines for the qualified specialist in clinical practice.

#### Recommended

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (7<sup>th</sup> Ed.) [ISBN 978-1433832161]



This book is approximately \$35.00 from the MSU Bookstore.

# **Computer Requirements**

You need access to an up-to-date Windows or Mac computer with an internet connection in this course. D2L does not work well with Internet Explorer or Edge. Use a different browser when working in D2L.

# **Assignments**

There will be seven module tests, four discussion boards, and one project. See more detailed descriptions of each at the end of this syllabus.

# **Important Dates**

All times are MSU campus time. All assignments are due at 11:59 pm on the date listed.

Date	Assignment
January 17	Class opens
	All tests open
	Review course syllabus
January 31	Module 1 Test
February 14	Module 2 Test
	Discussion Board 1
	Project topic and format posted in the discussion board
February 28	Module 3 Test
March 7	Discussion Board 2
March 14	Module 3 Test
March 27	Last day to withdraw with a "W" grade by 4:00 pm campus time
March 28	Module 5 Test
	Discussion Board 3
April 11	Module 6 Test
April 18	Discussion Board 4
April 25	Module 7 Test
	Course Project

# **Course Modules**

Module 1: Introduction

Module 2: Legal Considerations

Module 3: Technical Considerations for the Technologist

Module 4: Identification in Individual and Mass Casualty Incidents

Module 5: Violent Crime

Module 6: Non-violent Crime

Module 7: Virtopsy

## **Evaluation**

#### **Grade Distribution**

50% D2l Module Tests (7)
25% Discussion Boards (4)
25% Course Project

## **Grade Scale**

A = 100 - 90 B = 89 - 89 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 important updates.

- 1. Click the down arrow in the News section on the 4853-course home page
- 2. Select Notifications
- 3. Check the box next to "News new item available" and then check any other boxes you wish to receive an email notification from.
- 4. Check the email address you wish to send email notifications. 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.

You are welcome to email questions to clarify concepts or look for further explanations. If I come across 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 question may be located there.

#### **Late Work**

#### **Due Dates**

Most assignments are due on Tuesdays except for the last week of class (see Important Course Dates above). Assignments must be submitted by 23:59 (11:59 pm) Central 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 major event such as a death in the family, illness, hospitalization, or other extenuating circumstances, email the professor at rodney.fisher@msutexas.edu as soon as possible and on or before the scheduled due date. Extensions are granted on an individual basis. If an extension is granted, typically the following guidelines will be followed.

- 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, you 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. 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 you from participating, an alternate assignment may be considered at the discretion of the professor.

#### **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 be repeated according to the current radiology program policies.

## **Technical Difficulties**

On occasion, you may experience problems with accessing D2L, accessing class files located within D2L, connecting with your internet service, or may encounter other computer-related problems. 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 <u>Distance Education Helpdesk</u>
- By phone, 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 online to the MSU <u>Information Technology Website</u>.

## **Attendance**

This is an online course, and there are no mandatory sessions. However, the student should be vigilant in logging in to D2L. The student should expect to log in at least 3 times per week. Regular checks will ensure that messages from the professor are received in a timely manner. This course is on a schedule that will be strictly adhered to. See the Important Dates section above for specific due dates.

# Requesting a Withdrawal

The last opportunity to drop this course with a grade of "W" is in the Course Schedule. 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 complete 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. 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. If the matter remains unresolved, the Office of Disability Services for resolution will provide advice and/or assistance. 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. 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)

# **Honor System**

RADS 4853 adheres to the MSU Code of Conduct.

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

All components of RADS 4853 are designed to represent the efforts of each student individually and are NOT to be shared, copied, or plagiarized from other sources. When students submit their efforts for grading, they are attesting they abided by this rule.

An online plagiarism 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.

Cheating includes, but is not limited to

- Use of any unauthorized assistance in taking tests, 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; or
- 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 in 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.

Academic dishonesty (cheating, plagiarism, etc.) will not be tolerated in this class. Whenever a student is unsure of whether a particular situation will be interpreted as academic dishonesty, they should ask the professor for clarification. If students are guilty of academic dishonesty, a grade of zero (0) will be given for the test, assignment, etc. Cases may also be referred to the Dean of Students for possible dismissal from the university.

Students 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 <u>University Academic Dishonesty Policy</u>
- The website Plagiarism.Org, or
- The professor

#### **Please Note**

By enrolling in this course, the student expressly grants MSU a "limited right" to 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 student's work/ project in order 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 to detect plagiarism.

# Campus Carry / Active Shooter

# Campus Carry

Senate Bill 11 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 <a href="mailto:University's campus carry webpage">University's campus carry webpage</a>. If you have questions or concerns, please contact MSU Interim Chief of Police <a href="mailto:Steven Callarman">Steven Callarman</a> by email at <a href="mailto:steven.callarman@msutexas.edu">steven.callarman@msutexas.edu</a>.

# **Active Shooter**

The safety and security of our campus is 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

<u>Procedures</u>. 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."

# **Essentials of Forensic Medical Imaging Assignment Details**

There are seven modules, seven tests, four discussion boards and one project in this course.

- 50 % D2l Module Tests (7)
- 25 % Discussion Boards (4)
- 25 % Course Project

# D2L Module Tests (7) 50%

Students should complete the reading assignments, answer the chapter objectives, and review the questions at the end of the chapter before attempting the module tests.

When a student has reviewed a module and is ready for the test, they will log into D2L and receive a customized timed module test consisting of randomized multiple-choice questions. Tests contain 25 random questions, and students will have 60 minutes to complete them. Only one attempt is allowed for any given test.

All tests must be completed by the due date. Incomplete tests will be given a score of zero. Students who know they will miss a due date because of extenuating circumstances should contact the professor as soon as the circumstance is known. Each circumstance will be considered on an individual basis. Acceptance of an extenuating circumstance is at the discretion of the professor. Since all of the module tests are open for two months, only the most extraordinary of circumstances will be considered.

If students have technical difficulties during a test, they should use the 'Help' link located on the top toolbar within D2L to contact the MSU Information Systems Support Staff and email the course professor explaining what happened.

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

- Module Test Number (1-7)
- Question Stem
- Rationale Supporting Why the Student's Answer is Correct
- Include Page Numbers When Referencing the Textbook

For example, a student cannot send the message: "I think question number ten is wrong on test four" because each student gets a test of randomly generated test items. The professor has to know the question stem to find the question in the database. After reviewing the situation, if the course professor thinks a revision is justified, the student's test score will be revised to reflect the additional points.

# **Course Project 25%**

There are two choices available for the course project: A 3 – 4-page literature review in APA format or a poster

presentation (36"x 48"). Posters must not be printed, only the printable PDF file must be submitted. For either project, the student must pick and have approved an appropriate topic in forensic imaging. In the appropriate discussion board, the student should make a post with the proposed project title, a sentence or two explaining the subject matter, and the format in which the project will be presented (paper or poster). An example of a post would be:

Title: "The Use of 3D Modeling in Forensic Investigation". This poster will discuss how CT/MR DICOM files from forensic cases are used to create 3D models. These models may then be used by investigators or presented as evidence to a jury.

Another example might be:

Title: "Virtopsy as a Replacement for Medicolegal Autopsies". This paper will discuss the current and future trends in virtopsy. Virtopsy is being seen as a viable replacement for many traditional autopsies, saving both time and money.

## **Paper Requirements**

A paper should include the following:

- Title page (separate page)
- Abstract (separate page)
- 3 4-page discussion including introduction, method section, discussion, and conclusion
- Reference list (separate page)

Each of the above items should be a separate page(s). A paper with all the required components will be 6 or 7 pages when turned in. The paper should be in APA format. If there is any question as to what "APA formatting" is, the APA Manual (6<sup>th</sup> Ed), which is a recommended textbook, should be consulted.

## **Poster Requirements**

A poster should include the following:

- Title
- Information in text boxes with the appropriate headings
- Minimum of 5 images with citations
- Reference list

The poster should be made using a PowerPoint template for a 36"x48" poster. The file should be saved as a PDF file for uploading. All references and citations should be in APA format as outlined in the APA Manual (6<sup>th</sup> Ed.) NOTE: The professor will print a "proof" copy of your poster on 8.5x11 paper for grading. For details on easy formatting, please see the instructions on D2L.

All course requirements must be completed before a grade is awarded. Students must complete the final and all coursework by the dates published in the course schedule (below).

**Note:** All assignments received are considered complete and will be graded as such. Any decision of the professor is final, and there will be no further changes made.