



Course Syllabus: Imaging Informatics

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

Course Information

Name	RADS 4533x31- Imaging Informatics (online)
Credit	3 hours
Term	Summer 2019
Dates	June 3, 2019-August 8, 2019
Time Commitment	Students should expect to spend at least 12 hours per week on course material (10 week term)
Prerequisites	None

Professor

Kimberly Onstott MSRS, RT(R)(CT)(MR) Assistant Professor, Radiologic Sciences

E-mail: kimberly.onstott@msutexas.edu

Use this format in the subject line: 4533_your last name_topic of the message

E-mail is the best way to reach me. If I haven't responded within 72 hours, please email me again.

Phone: (940) 397-4332

Office location: Midwestern State University

3410 Taft Blvd

Bridwell Hall 232

Wichita Falls, TX 76309

Office hours: Tuesday-Wednesday 10am-3pm (email for a meeting time)

Course Description

This course introduces the concepts of information technology as it relates to health care and radiology. Healthcare data trends, electronic health records architecture of information systems, health information privacy and security, ethics, mobile technology, telemedicine, PACS, quality improvement, and patient safety.

Course Objectives

Upon completion of this course, the student will:

- Discuss the concept of health informatics as it relates to healthcare facilities.
- Describe the architecture of healthcare information systems.
- Related the importance of healthcare ethics, patient safety to health information technology
- Discuss barriers to health information technology
- Explain the PACS system and processes

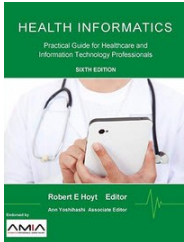
Teaching Methodology

Independent reading assignments, Desire2Learn (D2L) Units, video presentations, discussion threads, open book unit quizzes, and a closed book proctored final exam are used in this course.

Course Materials

Textbooks

Hoyt, R. E. (2012). Health informatics: Practical guide for healthcare and information technology professionals. (6th ed.) [Informatics Education](#).



*Note- A newer version of the textbook is now available, however, the 6th edition will be used for this course this semester. If you bought the 7th edition it would be best to exchange it for the 6th. The chapters are not in the same order and I cannot guarantee all of the same information is included.

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.

Proctor Specifications

- Web Camera 640x480 resolution minimum, 1280x720 resolution recommended.
- PC Users: A well-working computer running Windows Vista or higher (Windows 10 S is not supported).
- Mac Users: A well-working computer running Mac OS X 10.5 or higher. Mac OS X 10.10 Yosemite recommended
- A reliable high speed internet connection
 - minimum download .768 Mbps
 - minimum upload .384 Mbps
- A functioning microphone (sometimes web cameras have built-in microphones).
- One of the following compatible web browsers:
 - Google Chrome (preferred)
 - Mozilla Firefox
 - Safari
- The following plugins for your web camera:
 - Adobe Flash Player v12
 - Adobe Shockwave player

Detailed instructions for ProctorU are in the RADS 4533 D2L course shell under the section labeled Final Examination.

Assignments

There will be seven quizzes, six discussions, one course activity, and one final examination. See more detailed descriptions of each at the end of this syllabus.

Units

The course content is divided into 7 individual Units. Each Unit contains a reading assignment, PowerPoint presentations, an associated quiz, and discussion topics.

See the Course Schedule at the end of this syllabus for all deadlines.

Evaluation

Grade Distribution

- 30% D2L Unit Quizzes (7)
- 30% Discussion Board Postings and Responses (13)
- 15% EHR Assignment
- 25% Proctored D2L Comprehensive Closed Book 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 important updates.

1. Click the down arrow in the News section on the 4533 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 (see due dates in the course schedule at the end of this syllabus). 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 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, typically the following guidelines will 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, 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 you 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, keep in mind 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 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 points being lost, regardless of connection issues.

For help options:

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

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 4:00pm on July 11, 2019. All withdrawals **must be initiated by the student**. 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. Interim Department Chair – Debra Wynne (940-397-4575)
2. College Dean - Dr. Jeff Killion (940-397-4594)
3. Dean of Students – Matthew Park (940-397-7500)

Honor System

RADS 4533 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 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 4533 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 for identification of similarities to other student papers and published works.

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; 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, he/she should ask the professor for clarification. If students 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.

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 [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 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 for plagiarism.

Senate Bill 11

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

Assignment Details

- 30% D2I Unit Quizzes (7)
- 30% Discussion Board Postings and Responses (13)
- 15% EHR Assignment
- 25% Proctored D2L Comprehensive Closed Book Final Exam

Order of Content

Since this course is highly interactive between students with much of the learning occurring in the discussion boards, students are required to complete the course content by the dates listed in the course schedule. See the Course Schedule for specific information about activities and due dates. Late work is not accepted and a zero (0) will be recorded after the due date.

If extenuating circumstances occur that may cause a delay in completing an assignment or quiz by the deadline the student should contact the professor before the assignment is due (see the section on late work above); such cases will be dealt with on an individual basis.

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.

Introduction-Start Here!

This brief introduction will get you started with the navigation and expectations of this course. Read the welcome document, review the syllabus, and complete your introductions.

Introductions (required)

Introduce yourselves in the introduction discussion board following the guidelines in the course and reply to at least two of your peers by the due date in the course schedule.

Units

The course content is divided into 7 individual Units. Each Unit contains a reading assignment, an associated quiz, discussion topics or an associated assignment.

See the Course Schedule at the end of this syllabus for all deadlines.

Unit	Topic
Unit 1	Overview, Healthcare Data, and Data Analytics
Unit 2	Electronic Health Records
Unit 3	Health Information Exchange, Data Standards, Architectures
Unit 4	Health Information Privacy and Security, Ethics, & Consumer Health Informatics
Unit 5	Mobile Technology and Online Medical Resources
Unit 6	Medical Information Retrieval & Quality Improvement Strategies
Unit 7	Telemedicine & Medical Imaging Informatics

Independent Reading

Each Unit contains a reading assignment from the textbook. These are your main sources of instruction. Each chapter assigned has objectives the student should pay close attention to while reading. At the end of each chapter there are some important key items listed that the student should review in addition to the objectives before attempting the associated quiz.

Unit Quizzes -30%

When a student has reviewed a Unit and is ready for the quiz, he or she will log on to D2L and receive a customized timed Unit quiz consisting of randomized multiple choice questions. It is important to know the Unit content before attempting the Unit quizzes.

Quiz questions will be from information learned in the Units. Be sure to review the important key items and the objectives in the textbook, read the chapters, watch any associated videos, and review the associated PowerPoint presentations before attempting a quiz.

Due dates

All quizzes are open the day that classes begin. Each quiz has a specific due date. Be sure to start the quizzes well in advance of the close time for the exams. If you are not finished by the time the exam period closes, the exam you are working on will shut down even if you have not finished. Also, save your answers continuously to avoid losing your answers.

Quizzes not completed by the due dates, will receive a zero (0). Under no circumstances will an extension be made to complete quizzes not completed by the close date. Students should contact the professor in extenuating circumstances before the close date of the quizzes; such cases will be dealt with on an individual basis (see the section on late work). All quizzes must be completed before taking the Final Exam. See the course schedule for the due dates for the quizzes.

Technical problems

If technical issues occur (cannot see an image, cannot see your grade, etc.) sometimes the easiest solution is to see if the issue can be corrected by simply changing browsers. Fewer occurrences have been noted by using Firefox as a browser for D2L.

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](#), and send an email to the course professor explaining what happened. Screen shots and/or taking a picture of your screen may help in diagnosing the problem.

Scores

Quiz scores will be available immediately after a student submits his or her quiz for grading.

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 professor that includes the following:

1. Unit Quiz Number (1-7)
2. Answer the student thinks should be correct
3. Rationale supporting why the student's answer is correct
4. Page numbers must be included when referencing the textbook in a rationale

After reviewing the case, if the course professor 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.

Discussions -30%

There are 14 discussion topics in this course. Each one requires an original post and you must reply to at least two of your peers.

Introductions (original post and 2 replies)

Introduce yourselves in the introduction discussion board and reply to at least two of your peers by the due date in the course schedule.

Unit discussions (original post and 2 replies, there are 13 of these)

In each Unit you will respond to the associated discussion prompts in the discussion board. Follow the instructions closely for each chapter. Once you have posted your original response, you will then be able to view everyone else's responses. Review and reply to at least two of your classmates' posts. Your replies must contain substantial information that will provide your classmates with something they can use in their current or future positions. Do not just agree with what your classmate has said. Depending on the topic you can either

- Provide suggestions for alternative solutions/answers,
- Share a similar experience, or
- Add to the discussion by providing a resource about the topic, such as a website, an article, or pages from a book.

Provide something your classmates can walk away with. Once someone has replied to your post, please acknowledge them with a short reply and/or further discussion if needed.

The grades for the discussions are as follows:

- Each discussion topic has three parts. If you do not complete all three portions (1original post with a reply to at least two of your peers) you will not receive full credit for partial work.
- Substantial information must be included in all three portions.
- Posting an original post at the last minute does not provide enough time for your peers to respond. Posting an original post in the last day a discussion is open may result in a significant loss of points. Goal dates for original posts are in the course schedule (at least 24 hours prior to the close date). Post your original response as close to these dates as possible.
- Professional interactions are expected. Spelling, grammar, and substance really do count. Try not to veer off subject, and be respectful and considerate of your fellow students' submissions.

Electronic Health Record Assignment 15%

Each student will complete an assignment using the electronic health record software, Practice Fusion. No purchase is necessary. A 30-day trial is available (see the full instructions in Unit 2 of the course).

Comprehensive Final Exam- 25%

All quizzes must be completed before the Final Exam is taken. If a quiz has been missed it is the student's responsibility to contact the professor for permission to take the final.

You must schedule your exam well in advance in order to guarantee a spot with ProctorU. There have been instances in the past in which the student waited to the last minute to schedule their exam and ProctorU was already booked.

Exam Format

- The proctored comprehensive final examination is closed book.
- The exam is a timed, 2 hour (120 min) test.
- The comprehensive exam will be administered using Desire2Learn (D2L) and ProctorU online proctoring service.
- To prepare for this exam:
 - The goal by the end of this course is to acquire truly usable information about the key topics in this rapidly changing field in order to help you transform your workplace. The final will challenge you and test the knowledge you have gained this semester.
 - The final has been derived from the entire content of this course. Review all of your quizzes, your textbook, and your discussion exercises.

What to Bring

- You may bring scratch paper with only ProctorU's phone number on it.
- No smart watches or any other electronic devices will be allowed.
- Students are not allowed to print the final exam.
- No textbooks or notes may be used.

ProctorU Scheduling

- The comprehensive proctored final exam will be administered using Desire2Learn (D2L) and ProctorU online proctoring
- You may schedule your exam for any time within the testing dates in the course schedule. You must have ALL of your course work complete when you take your final or the final will not be accessible in D2L.
- For ProctorU instructions, please read the [ProctorU student instruction](#) guide
- Be aware certain equipment is required. Review the ProctorU instructions as soon as possible.
- Contact a ProctorU representative to check your equipment and bandwidth real time before your test date. If anything changes after this check (new computer, updates, ISP changes, etc.), REPEAT the check.
- ProctorU allows you to take an exam on demand or by appointment. All appointments should be made at least three days in advance. To make an appointment, simply create an account on the [MSU ProctorU webpage](#)

Technical problems

- If you are disconnected during your exam, you must immediately send an email to your professor, and immediately contact ProctorU by phone. All exams are monitored and a log is created by the proctor and by D2L.
- *All times will be documented*
- The exam must be taken within the scheduled test dates, regardless of any technical issues that may arise. This is the student's responsibility.
- Late submissions will not be accepted.
- My suggestion is to take the exam during the first days it is available (listed below) to avoid receiving a zero due to technical issues. If you have to reschedule, it must be within the scheduled dates and times.

Additional Notes

- All course requirements must be completed before a grade is awarded. Students must complete the final and all course work by the dates published in the course schedule.
- 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.
- Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.
- See the Course Schedule below.

Date	Activity <i>* Note: These are Central Times*</i>
Monday, June 3	Class Opens Discussion Boards and Unit Quizzes are open Review course syllabus and participate in the Introduction discussion.
June 3-June 11	Unit 1- Overview, Healthcare Data, and Data Analytics
June 9	Introductions and Unit 1 Discussions-Original Posts – Goal Date (a goal date is the date you ‘should’ have your ‘first’ posts complete. Waiting until the ‘end’ date may result in a significant deduction of points as there is no time for peer discussion)
June 11	Introductions in Discussion Board due by 23:59
	Unit 1 Discussions end 23:59
	Unit 1 Quiz due by 23:59
June 11-June 18	Unit 2- Electronic Health Records
June 16	Unit 2 Discussions-Original Posts – Goal Date
June 18	Unit 2 Discussions end 23:59
	Unit 2 Quiz due by 23:59
June 18-June 25	Unit 3 - Health Information Exchange, Data Standards, Architectures
June 23	Unit 3 Discussions-Original Posts – Goal Date
June 25	Unit 3 Discussions end 23:59
	Unit 3 Quiz due by 23:59
	Unit 3 Electronic Medical Record Exercise Dropbox Assignment due by 23:59
June 26-July2	Unit 4 - Health Information Privacy and Security, Ethics, & Consumer Health Informatics
June 30	Unit 4 Discussions-Original Posts – Goal Date
July 2	Unit 4 Discussions end 23:59
	Unit 4 Quiz due by 23:59

July 2	Final exam must be scheduled with Proctor U by this date. All assignments must be completed by the date your exam is scheduled with ProctorU.
July 2-July 9	Unit 5 - Mobile Technology and Online Medical Resources
July 7	Unit 5 Discussion-Original Posts – Goal Date
July 9	Unit 5 Discussions end 23:59
	Unit 5 Quiz due by 23:59
July 9-July 16	Unit 6 - Medical Information Retrieval & Quality Improvement Strategies
July 11	Drop day <i>Last day to withdraw with a grade of "W"</i>
July 16	Unit 6 No Discussions for this Unit
	Unit 6 Quiz due by 23:59
July 16-July 23	Unit 7 - Telemedicine & Medical Imaging Informatics
July 21	Unit 7 Discussions-Original Posts – Goal Date
July 23	Unit 7 Discussions end 23:59
	Unit 7 Quiz due by 23:59
Final exam July 23—August 6	Closed Book Proctored Final Exam The exam must be complete and submitted for grading by 23:59 on August 6. <i>(Last scheduled 'start' time with ProctorU is 21:00 (9pm))</i> <i>(timed 2 hours, multiple choice format, all quizzes must be complete, before taking the final)</i>