



Course Syllabus: Continuous Quality Improvement in Medical Imaging

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

Shimadzu School of Radiologic Sciences

Course Information

Information	Description
Name	RADS 4633x20- Continuous Quality Improvement in Medical Imaging
Credit	3 hours
Term	Spring 2020
Dates	January 18, 2020-May 8, 2020
Time Commitment	Students should expect to spend at least 9 hours per week on course material (15 week term)
Prerequisites	Acceptance into the Radiology Program (BSRT or BSRS)

Professor

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

E-mail: kimberly.onstott@msutexas.edu

Use this format in the subject line: 4633_your last name_topic of the message

E-mail is the best way to 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

Centennial Hall 430Q

Wichita Falls, TX 76309

Office hours: Tuesdays 10-3:00pm- additional hours by request. Please make an appointment by e-mail.

Course Description

This course presents principles and strategies of process improvement in medical imaging including problem identification, solution planning, and process management.

Course Objectives

Upon completion of this course, the student will:

- Delineate the role of the health care manager in continuous quality improvement.
- Describe the 8 step model for continuous quality improvement.
- Apply the tools used in implementing a continuous quality improvement program.
- Identify the barriers to successful continuous quality improvement.
- Analyze a scenario for the existence of a problem, customer identification, customer needs and expectations, and possible solutions.
- Generate solutions for a problem using relevant tools and procedures.

Teaching Methodology

Independent reading assignments, Desire2Learn (D2L) modules, Video presentations, Discussion threads, Open book module quizzes, and a Closed book proctored final exam are used in this course.

Course Materials

Textbooks

None required. The course reading material is located online in the course modules in D2L.

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

You will be required to use ProctorU a proctoring service for your final exam. Here are the specifications for your equipment. Detailed instructions for ProctorU are at the end of this syllabus.

Type	Minimum	Recommended
Webcam	640x480 resolution	1280x720 resolution
PC Users	Windows Vista	Windows 10 (10 S not supported)
Mac Users	Mac OS X 10.5 or higher	Mac OS x 10.13 High Sierra
Internet Download Speed	.768 Mbps	1.5 Mbps
Internet Upload Speed	.384 Mbps	1 Mbps
RAM	1024 MB	2 GB
Connectivity Ports	1935, 843, 80, 443, 61613, UDP/TCP	1935, 843, 80, 443, 61613, UDP/TCP

Assignments

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

Modules

The course content is divided into 6 individual modules. Each module contains a study guide, an associated quiz, and a discussion topic.

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

Module	Topic
Module 1	Quality Improvement Development and Principles
Module 2	Characteristics and Roles of the Quality Manager and Skills That Enable Effective Quality Management
Module 3	The Management Model
Module 4	Developing Measures to Monitor Performance
Module 5	The Manager's Tool Kit - Part One
Module 6	The Manager's Tool Kit - Part Two

Evaluation

Grade Distribution

- 40% D2I Module Quizzes (6)
- 25% Discussion Board Postings and Responses
- 35% 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 4633 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 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 March 30, 2020. 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 – Beth Veale (940-397-4575)
2. College Dean - Dr. Jeff Killion (940-397-4594)
3. Dean of Students – Matthew Park (940-397-7500)

Honor System

RADS 4633 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 4633 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

There are six modules, six quizzes, six discussions, and one final examination in this course.

- 40% D2L Module Quizzes (6)
- 25% Discussion Board Postings and Responses
- 35% 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!

In the course shell you must visit all four items in this section before continuing on with the modules. This brief introduction will get you started with the navigation and expectations of this course. Read the welcome document, review the syllabus, complete your introductions following the instructions in D2L, and then take the self-assessment quiz (the self-assessment quiz is not graded, but is required).

Independent Reading and Instructional Videos

Each module contains a study guide. These are your main sources of instruction.

Each study guide has objectives the student should pay close attention to while reviewing each module. At the end of each study guide there are some important key items listed that the student should review in addition to the objectives before attempting the associated quiz.

Several video files are embedded within the study guides to help you understand the various charts, graphs, and content. When you click on these, a second window will open to display the video. When finished watching, just close that window and you can return to the course content. *Note: the videos can take up to a few minutes to load. Please be patient as they really can be helpful. If you are unable to open them, you may have to enable pop-ups or you may have to change your browser*

Module Quizzes -40%

When a student has reviewed a module and is ready for the quiz, he or she will log on to D2L and receive a customized timed module 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 modules. Be sure to read the study guides, practice applying and using the information learned, and watch the associated video presentations. Review the important key items and the objectives before attempting a quiz.

Due dates

The first three quizzes are open the day that classes begin. In the middle of the semester the first three quizzes will close and the last three quizzes will open. 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 (Chrome, Firefox, etc.). 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.

Note: Keep in mind that even though the quizzes are multiple choices, the final exam is in a short essay/application format. Be sure to review the concepts from the quizzes as if you were applying them to real world applications. Practice doing this as you move through the course.

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. Module Quiz Number (I -VI)
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 -25%

There are 7 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.

Module discussions (original post and 2 replies, there are 6 of these)

In each module you will respond to the associated discussion prompt in the discussion board at least 48 hours before the discussion closes. Follow the instructions closely for each module. 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. Depending on the topic you will either

- Provide suggestions for alternative solutions,
- 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.

Comprehensive Final Exam- 35%

All quizzes must be completed before the Final Exam is taken. 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, and in an essay/application format.
- 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 problem-solving skills that will work for you and 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 study guides, and your discussion exercises.
 - You will be given directions concerning a narrow-focused problem supplied by your professor, and then you will have several tasks to complete regarding the problem.
 - You will be required to identify the problem and work through that problem using the skills you have obtained throughout the semester.
 - You will need to be able to identify your customers, prioritize them, understand the consequences of not satisfying their needs, and analyze the given problem.

- You will need to critically look at the PDCA model and be able to work a problem thoroughly through that model.
- You will need to be familiar with the tools you have learned about and be able to apply them to your problem.
- The final will test you over all problem-solving techniques and tools contained in the course.

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.

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.

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.

Scroll down for a separate printable page of the RADS 4633-Spring 2020- Course Schedule

<u>RADS 4633x20 Course Schedule Spring 2020 (all times are CST)</u>	
Date	Activity
January 18	Module Quizzes 1, 2, & 3 are Open The first three module quizzes are available from January 18-February 25. Quizzes become available on the date specified and expire at 23:59 on the closing date.
January 18- January 28	Module 1- Quality Improvement Development and Principles
January 21 Now February 3	Self-Assessment Quiz due by 23:59
January 21	Now January 28 Introductions in Discussion Board by 23:59
	Module 1 Discussion-Original Post – Goal Date
January 28	Module 1 Discussions end 23:59
	Module 1 Quiz – Goal Date
January 28- February 11	Module 2- Characteristics and Roles of the Quality Manager and Skills That Enable Effective Quality Management
February 4	Module 2 Discussion-Original Post – Goal Date
February 11	Module 2 Discussions end 23:59
	Module 2 Quiz – Goal Date
February 11- February 25	Module 3 - The Management Model
February 18	Module 3 Discussion-Original Post – Goal Date
February 25	Module 3 Discussions end 23:59
	Module 3 Quiz – Goal Date

February 25	Modules 1-3 Quizzes due by 23:59
<u><i>RADS 4633x20 Course Schedule Spring 2020 (all times are CST)</i></u>	
Date	Activity
February 25	Module Quizzes 4,5, & 6 are Open The second three module quizzes are available from February 25-April 14. Quizzes become available on the date specified and expire at 23:59 on the closing date.
February 25-March 10	Module 4 - Developing Measures to Monitor Performance
March 3	Module 4 Discussion-Original Post – Goal Date
March 10	Module 4 Discussions end 23:59
	Module 4 Quiz – Goal Date
March 10-March-24	Module 5 - The Manager's Tool Kit - Part One
March 17	Module 5 Discussion-Original Post – Goal Date
March 24	Module 5 Discussions end 23:59
	Module 5 Quiz – Goal Date
March 24- April 7	Module 6 - The Manager's Tool Kit - Part Two
March 30	Drop day Last day to withdraw with a grade of “W”
March 31	Module 6 Discussion-Original Post – Goal Date
April 7	Module 6 Discussions end 23:59
	Module 6 Quiz – Goal Date
April 14	Modules 4-6 Quizzes due by 23:59

Final exam April 10-April 21	Closed Book Proctored Final Exam The exam must be complete and submitted for grading by 23:59 on April 21. (2 hours, essay/application format, all quizzes must be complete before taking the final)
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