Course Syllabus
SEMESTER
School of Nursing and Health Professions

Course Name:	**Radiologic Technology VII**
Course & Section Number:	**RAD 214-XXX**
Meeting Day(s) & Time(s):	
Credits:	**4**
Contact Hours:	**3 lecture, 1 lab**
Instructor's Name:*	
Student Hours (Formerly Office Hours) & Location:	
OCC Email: **	
Additional Contact Information:	

**Please only use your student OCC email to contact me.

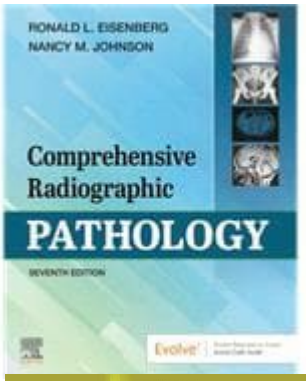
Catalog Description:

RAD 214 - Radiologic Technology VII

Studies concepts related to disease and etiological consideration with emphasis on radiographic appearance of disease and impact on exposure factor selection. Principles of quality, assurance, quality control techniques and maintenance are introduced. Laboratory experiences focus on quality control, radiation protection, specimen imaging and venipuncture principles.
Co-requisite: RAD 204 and RAD 205
Prerequisite: RAD 213
Credits: 4(Lec: 3 Lab: 3)
School: School of Nursing & Health Professions
Department: Radiologic Technologies
Attributes: General Elective

Course Materials:

COMPREHENSIVE RADIOGRAPHIC PATHOLOGY
1. EISENBERG, RONALD L. M.D.; JOHNSON, NANCY M.
ISBN13: 9780323566704
EDITION: 7TH
FORMAT: PAPERBACK
PUBLISHER: Elsevier
COPYRIGHT: 5/1/2020



2. MOSBY'S COMPREHENSIVE REVIEW OF RADIOGRAPHY
CALLAWAY, WILLIAM J
ISBN13: 9780323694889
EDITION: 8TH
FORMAT: PAPERBACK W/ ACCESS CODE
PUBLISHER: Elsevier
COPYRIGHT: 2/1/2021

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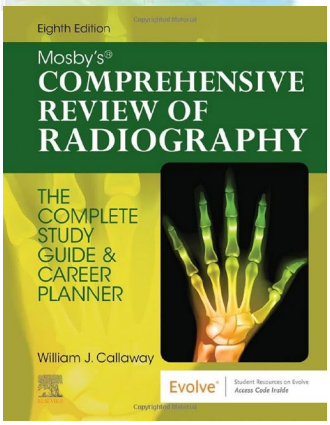

3. Owens Community College, Department of Radiologic Technology. RAD 214 Laboratory Manual. (Provided Online in Course)
4. Radiologic Science for Technologists Bushong, Stewart C. ISBN13: 9780323661348 Edition: 12th Format: Hardcover Publisher: Mosby Inc Copyright: 12/11/2020
5. Bontrager, Kenneth. Textbook of Radiographic Positioning and Related Anatomy. Tenth Edition, St. Louis: Mosby-Year Book, 2021.
6. Carlton, Richard R., M.S., R.T. (R) CV) and Arlene Adler M.Ed., R.T. (R) FAERS. Principles of Radiographic Imaging an Art and a Science. Fifth Edition, Albany: Thompson Delmar Learning, 2013.
7. Fauber, Terri L. Ed.D., R.T. (R) (M). Radiographic Imaging & Exposure. Fifth Edition, St. Louis: Mosby, Inc., 2017.
8. Windows Computer with Respondus Lockdown Browser Installed and Web-Cam Access for on-line testing

OER and Owens Community College Library Resources *(Open Educational Resources are free online materials for instructor and student use. Some OER material may be available in print in the Owens Community College Library.)*

What You Will Learn in This Course:

Course Objectives:

This course will…

1. Present the fundamental principles of quality assurance and quality control activities in the field of radiography.

2. Identify and describe the pathologic factors in disease processes of various organ systems and present their radiographic manifestations.
3. Allow students to perform quality control activities in the laboratory setting.
4. Simulate the processes of venipuncture and patient care in an emergency in the laboratory setting.

Student Learning Outcomes:

Student will…

1 identify, describe and explain factors and terminology, procedures and equipment used for quality assurance in the radiographic environment.
2. demonstrate an understanding of the role of imaging in the assessment of various pathologies in patients.
3. perform quality control experiments as assigned.
4. apply mathematical concepts to medical imaging situations as evidenced by demonstration of correct technical factor conversion calculations.
5. research and perform an artifact and reject analysis.
6. research, develop and submit a *Quality Control Report* and a sample *Technique Chart.*
7. demonstrate the ability to perform venipuncture on a phantom patient.

Outcome The student will:	Where assessed (List assignments, exams, discussions, items to be graded)
1. identify, describe and explain factors and terminology, procedures and equipment used for quality assurance in the radiographic environment.	QC report
2. demonstrate an understanding of the role of imaging in the assessment of various pathologies in patients.	Quizzes Test 1, Test 2, Midterm, Test 3, Test 4, Final exam.
3. perform quality control experiments as assigned.	QC report
4.apply mathematical concepts to medical imaging situations as evidenced by demonstration of correct technical factor conversion calculations.	Technique chart
5. research and perform an artifact and reject analysis.	Artifact and reject analysis lab report
6. research, develop and submit a *Quality Control Report* and a sample *Technique Chart.*	QC report Technique chart
7. demonstrate the ability to perform venipuncture on a phantom patient.	Venipuncture practical

Program Outcomes

Goal 1: Students will be clinically competent.
Goal 2: Students will utilize critical thinking skills.
Goal 3: Students will be able to communicate effectively.

Programmatic assessments in this course

The following assessments are tools used for program outcomes from this course:
Technique chart
Lecture final exam

Institution General Education Outcomes

As a student at Owens Community College, you will take General Education Courses as part of your degree program. While specific to the General Education Courses, will be reinforced in many of your degree program major courses and may be measured in your capstone course or others identified.

1. Communicate effectively.
2. Act with professional responsibility.
3. Demonstrate sensitivity to other's beliefs and values.
4. Think analytically, critically, and creatively.

Institution General Education Competency	Where Assessed
Communicate effectively.	Quizzes Examinations QC report Technique chart
Act with professional responsibility.	Quizzes Examinations Technique chart
Demonstrate sensitivity to others' beliefs and values.	
Think analytically, critically, and creatively.	Quizzes Examinations QC report Technique chart

Technology, Lab, & File Requirements:

The Blackboard Learning System is an online course environment available for all Owens courses, even those that are not web-based. Blackboard offers students a resource where they can communicate and collaborate with instructors and fellow students outside of the physical classroom. The Radiologic Technologies Department integrates Blackboard into each course, and it is essential for all students to become familiar with the system. Check the STUDENT HELP AND RESOURCES tab on the blackboard shell for information on technical support and Software/Hardware requirements for utilizing Blackboard to complete assignments and communicate with peers and faculty.

Calculators: Please be sure that you have a calculator available as necessary for lecture class and testing sessions. Cell phones/iPads or laptops may be used for testing but may not be used as calculators. When testing, the Respondus calculator will be activated.

Specific download and installation Instructions are posted in Blackboard.

Academic Support

Disability Services Resource Center: If you have a disability or acquire one, you may be entitled to receive reasonable accommodations intended to assure you an equal opportunity to participate in and benefit from the program. To receive more information or to register for accommodations, please contact the Disability Resource Center at 567-661-7007, email disability@owens.edu, visit https://www.owens.edu/disability/, or stop by College Hall 124.

Tutoring Services: Owens Community College offers academic tutoring and assistance in a variety of subjects including: accounting, computing, economics, mathematics, science, and writing. For more information go to: https://www.owens.edu/successcenters/.

Counseling Services: Counseling Services provides assistance to students experiencing personal, educational, interpersonal/relationship, family, social, or psychological difficulties. If you feel you may benefit from this service, please contact them at counselingservices@owens.edu. More information is at https://www.owens.edu/counseling/.

Campus and Community Connections: The Center for Campus and Community Connections (College Hall 123) is a walk-in office created to provide retention support through resource stability initiatives and community connections. Go here for more information: https://www.owens.edu/connection/ or contact connections@owens.edu

Owens Library: The Owens Library offers two locations (Toledo and Findlay) as well as online resources. For more information visit https://www.owens.edu/library/.

Students can find more information on campus resources, student support, student life, and security at this link.

General Information

Student Code of Conduct: All students are expected to follow Owens Community College's Student Code of Conduct, which includes academic honesty, encompassing plagiarism. See the Board Policy for more information.

Anti-Discrimination and Harassment & Title IX/Sexual Misconduct: All students, faculty, and staff are expected to follow Owens Community College's Anti-Discrimination and Harassment Policy and the College's Title IX Policy/Sexual Misconduct Procedures and Guidelines. The College strictly prohibits and will not tolerate harassment, discrimination, intimidation, or hostile/offensive working or learning environments.

Religious Accommodations: A student seeking an accommodation for an absence permitted under Ohio's Testing Your Faith Act must provide the instructor with a written email notice with the specific dates for an absence, and must do so not later than fourteen (14) days after the first day of instruction. Alternative accommodations are not retroactive, and no academic penalty will be imposed for an absence under the policy*. The request for an alternative accommodation will be kept confidential. Students with questions about a religious accommodation under Ohio's

Testing your Faith Act may contact the College's Office of Academic Affairs: provost@owens.edu The policy may be found on the Owens website: 3358:11-2-63 Accommodation for a Student Absence for the Observance of Religious Beliefs and Practices Policy

Document Collection: Throughout the semester, your instructors may ask for a variety of assignments including tests and/or quizzes for student learning of institutional general education competencies or program assessment. Please save all your class materials until the end of the semester.

Classroom Admittance: OCC classes shall only be attended by the officially registered OCC students or perspective students, instructor of record, guest lecturer, or substitute. Visitors are not permitted to be in the classroom and should not be invited to attend or participate in the class. See FERPA regulations for more information.

Use of AI Tools:
This course permits you to use artificial intelligence (AI) tools, such as chatbots, text generators, paraphrasers, summarizers, or solvers, to get guidance on assignments, as long as you do so in an ethical and responsible manner. Essentially, you can think of these tools as ways to help you learn but not to entirely create work for assignments like discussion board posts, essays, presentation slides, and so on. AI is more like your tutor or TA, not a replacement for your independent thinking.
This means that you must:

- Not use AI tools to replace your own thinking or analysis or to avoid engaging with the course content.
- Cite or explain any AI tools you use. Provide the name of the AI tool, the date of access, the URL of the interface, and the specific prompt or query you used to generate the output.
- Be transparent and honest about how you used the AI tool and how it contributed to your assignment. Explain what you learned from the AI tool, how you verified its accuracy and reliability, how you integrated its output with your own work, and how you acknowledged its limitations and biases.

You are accountable for any mistakes or errors made by the AI tool. Always check and edit the output before submitting your work. If you discover any inaccuracies or inconsistencies in the output after submission, notify the instructor immediately and correct them as soon as possible. Using AI tools in an unethical or irresponsible manner, such as copying or paraphrasing the output without citation or transparency, using the output as your own work without verification or integration, or using the output to misrepresent your knowledge or skills, is considered a form of academic dishonesty and will result in a zero grade for the assignment and possible disciplinary action. If you have any questions about what constitutes ethical and responsible use of AI tools, please consult with the instructor **before** submitting your work.
All written assignments, projects, and exams must be completed independently.

Student Responsibilities and Instructor Expectations

Instructor's Responsibilities:

Attendance/Class Time:
We will be respectful of your time and begin and end class on time. If class needs to be canceled for any reason, I will notify students as soon as possible by email announcement.

Grading Assignments:
Assignments that are submitted by the due date will be graded and returned/recorded in the Blackboard grade center within 7 days. Assignments that are submitted after the due date *may* take up to 10 days before I am able to grade it.

Answering Emails:
I will do my best to respond to your emails within 24 hours on weekdays and within 72 hours on weekends. Please use your Owens email account to contact me.

Announcements:
I will post any updates and/or reminders on the Blackboard Announcement page, as well as send it out to your Owens email account.

Student Hours:
These posted times (posted outside my office door, HEC 132 K) are designated for me to be available to meet with and assist you, outside of normal class time, with any concerns/questions you may have regarding this course or program.

Facilitating Successful Completion of the Course:
I welcome questions, concerns, and experiences relevant to the topic, course and/or professional field. We learn from each other. If appropriate, I encourage you to share and ask during class. If not, please see me during student hours or email me. If there is a need, I will reach out to the student or class to address that need. I will make referrals to other campus resources as needed.

Student Responsibilities:

Attendance/Participation:
Class discussions, activities and participation are an integral component of learning and understanding the course material and therefore, attendance is expected in this class. If you are going to be absent, please notify the appropriate instructor prior to missing the class, if possible. Please look at the assignment calendar to see what was missed (topic, assignments, etc.), review the power points and contact the instructor if you have any questions.
Class will begin on time, so please plan accordingly. It will only become an issue if your lateness becomes habitual: 5 points *could* be deducted from your final grade.

Make Up Tests
A make-up test consisting of fill in the blank questions and answers may be administered if a student misses a regularly scheduled examination. To receive maximum credit, the student must notify the instructor at least 30 minutes prior to the scheduled testing time. If no notification is received, the student will receive a five (5) point reduction from the score of the make-up examination.

Inclement Weather
In the case that the campus closes due to inclement weather, online lecture may take place at the discretion of the instructor. Communication from instructor will be sent out the day of.

Assignment submission:
Students are to be familiar with the assignment calendar and how to submit assignments (on the assignment instructions on the blackboard shell). If you are unable to submit an assignment by the end of the day on the due date (on assignment calendar), you are encouraged to still

submit it. Although full credit *may not* be given if the assignment is late, you may be able to earn *at least* partial credit.

Check Email/Blackboard Shell:

Any announcements and updates will be sent to your email and/or posted on the Blackboard shell. Students are encouraged to check their email *at least* once daily and to log into their Backboard shell several times a week to remind themselves of upcoming assignments, etc.

Tests/Quizzes:

All dates for assignments and tests are listed on the assignment calendar. All tests and quizzes will be administered on Blackboard and taken during the designated class time. Please bring your laptop/tablet with you on these days with Respondus software loaded. If you do not have a device, please let us know ahead of time and we will make other arrangements for you.

Phones:

We have found phones to be a distraction in class. Please silence your phone and keep it out of sight. However, there may be circumstances you may need your phone available for personal reasons. If this is necessary, please be discreet and leave the classroom.

Contacting the Instructor:

Email is the best way to reach me, outside of student hours. Please include your course number and section in the subject line.

Asking for Help/Clarification:

I expect questions and that is ok. **Unless I am told otherwise, we will assume that every student understands everything said in class, on the Blackboard shell and through emails**. Sometimes the best thing you can say is "I am not following this concept" or "I have no idea where to begin with this assignment." All classes, and courses in this program, will build on and further develop the information we discuss. Please reach out as soon as you have questions or need clarification.

Instructor Discrepancies:

If at any time throughout the semester you have a problem with the course and/or instructor, contact the instructor. If the issue cannot be resolved after discussion with the instructor, see the Department Chair: NAME, LOCATION, TELEPHONE, or EMAIL.

Respectful Class Communication:

Our classrooms are a safe space. Faculty and students show respect for each other in class and all communication. There is also a short power point on the Blackboard info tab regarding polite, professional email communication.

Social Media Use:

The use of YouTube, Facebook, Instagram, Twitter, Discord, SMARTkapp or any other internet share site to distribute any course, campus lab, or clinical photos, audio recordings, or video recordings is prohibited unless written permission is received from all people involved. Using these sites to display comments about faculty, peers, staff, and/or patients is in conflict with our policies. Such comments may result in disciplinary action. Written permission involves completion of "OWENS COMMUNITY COLLEGE CONSENT FORM".

How Grades are determined and major assignments.

Weighted Grade Scheme:

Breakdown of Course Grades
The course grade is divided as follows:

The lecture section will be worth 50% of the course grade; divided as follows:

4 Tests (6% each)	24%
Pathology Quizzes	4 %
Midterm Exam	8 %
Final Exam	8 %
Pathology Worksheets	3 %
Tech manipulation Worksheet	3%
	50%

Grading Procedure:

Grading Procedure: The grading scale for the course is

93 – 100%	A
85 – 92%	B
76 – 84%	C
60 – 75%	D
59% or below	F

The course is divided into two sections:

1. Lecture 50%
2. Laboratory 50%

Students must earn a passing grade of 76% in both the lecture and laboratory components of the course. If either of the percentages earned is less than 76%, the student will earn a grade of "D or F" for the course and be removed from the program.

Assessment	Percentage of grade/Value	Student learning outcomes assessed	Gen Ed Assessment
Exams – 4	24%	SLO 1, 6, 7	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
Pathology quizzes	4%	SLO 2	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
Lecture midterm	8%	SLO 2	Communicate effectively.

			Act with professional responsibility. Think analytically, critically, and creatively.
Lecture final	8%	SLO 2	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
Pathology worksheets	3%	SLO 2	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
Technique manipulation worksheet	3%	SLO 1, 6	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
Laboratory Reports	5%	SLO 1, 3, 5, 6	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
QC report	9%	SLO 1, 3, 6	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
Technique Chart	8%	SLO 1, 6	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
DR Technique Chart Assignment	2%	SLO 1, 6	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
Lab Quizzes	4%	SLO 1, 3,	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
Lab Midterm Exam	8%	SLO 1, 3, 6	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
Lab Final Exam	8%	SLO 1, 3, 6	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.
Comp Image ID	6%	SLO 1, 2	Communicate effectively. Act with professional responsibility. Think analytically, critically, and creatively.

Lecture Class Assignments

Lecture Tests

All digital testing will utilize Respondus Lockdown Browser. All off-campus testing will utilize Responds Lockdown Browser with Web Cam. **If students are not logged into Respondus during assessments, no credit will be issued for the assessment.** A repeat exam consisting of fill-in-the-blank questions on campus will be administered.

Four (4) tests will be given. Each will be worth 6% of the grade.

Lecture Quizzes
There will be 8 lecture (pathology) quizzes worth 4% of the total grade. The lowest quiz grade will be dropped. The student is advised to attend class regularly and keep reading assignments and studies up to date to fully benefit from these quizzes. Make-up quizzes will not be administered.

Technique Manipulation Worksheet
The student will be given a worksheet consisting of technical factor manipulation problems. It will count for 3% of the course grade. Additional questions will also be asked on Test 2.

Pathology Worksheets
Pathology homework assignments can be found in the "Assignments" section of *Blackboard*. Each student will be assigned the pathologies that must be researched and then posted on the Wiki located in the BB course. These will count for 3% of the course grade

Midterm and Final Exams
A comprehensive midterm exam will be given, which will count for 8% of the course grade. A comprehensive final exam will be given. It will also account for 8% of the course grade.

214 Lecture Schedule SEMESTER

Class days	Topic	Reading Assignment
1. DATE	Introduction to Radiographic Pathology	Eisenberg, Ch. 1
	The Skeletal System Patient	Eisenberg, Ch. 4
2. DATE	Skeletal System Pathology ***Pathology Skeletal Homework Assignment #1 due***	Eisenberg, Ch. 4
	Skeletal System Pathology cont. ***Skeletal Pathology Quiz***	Eisenberg, Ch. 4
3. DATE	***Test #1***	Eisenberg, Ch. 3
	The Respiratory System Patient	Eisenberg, Ch. 3

4. DATE	The Respiratory System Pathology ***Pathology Respiratory Homework Assignment #2 due*** ***Respiratory Pathology Quiz***	Eisenberg, Ch. 3
	The Cardiovascular System Patient	Eisenberg, Ch. 7
5. DATE	The Cardiovascular System Patient/ Pathology ***Pathology CV Homework Assignment #3 due*** ***Technique Manipulation Worksheet due***	
	Cardiovascular System Pathology ***Cardiovascular PATHOLOGY Quiz***	
6. DATE	***Test # 2***	
DATE	The Mammography Patient and Pathology	Bontrager, Ch. 18
7. DATE	The Reproductive Systems Patient	Eisenberg, Ch. 11
DATE	The Reproductive Systems Pathology ***Pathology Reproductive Homework Assignment #4 due*** ***Pathology Quiz***	Eisenberg, Ch. 11
8. DATE	The Urinary System Patient	
DATE	The Urinary System Pathology ***Pathology Urinary Homework Assignment #5 due*** ***Urinary System Pathology Quiz***	Eisenberg, Ch. 6
9. DATE	Independent Study – Prep for Comprehensive Midterm	
DATE	***Lecture Comprehensive Midterm*** Covering Lectures from Introduction to Urinary ***Test to be taken on blackboard during regular class time – no lecture***	

10. DATE	The Gastrointestinal System Patient	Eisenberg, Ch. 5
DATE	Gastrointestinal System Pathology ***Pathology GI Homework Assignment #6 due*** ***GI Pathology Quiz***	
11. DATE	The Central Nervous System Patient	Eisenberg, Ch. 8
DATE	The Central Nervous System Patient and Pathology ***Pathology CNS Homework Assignment #7 due*** ***CNS Pathology Quiz***	Eisenberg, Ch. 8
12. DATE	***Test #3***	
DATE	**Independent Study - OSRT**	
13. DATE	The Hematopoietic and Endocrine Systems	Eisenberg, Chs. 9, 10
DATE	Miscellaneous Pathology ***Pathology Quiz***	Eisenberg Ch.12
14. DATE	***Test #4***	
DATE	Lecture Final Review ***Review Quiz***	
DATE DATE	***Comprehensive Lecture Final Covering Gastrointestinal through Misc. Pathology only.*** Graduation Luncheon DATE at TIME	

LABORATORY SECTION

Course Name:	**Radiologic Technology VII**
Course & Section Number:	**RAD 214-BXX**
Meeting Day(s) & Time(s):	
Credits:	**4**
Contact Hours:	**3 lecture, 1 lab**
Instructor's Name:*	
Student Hours (Formerly Office Hours) & Location:	
OCC Email: **	
Additional Contact Information:	

**Please only use your student OCC email to contact me.

What Are Student & Instructor Responsibilities?

Instructor Responsibilities:

Attendance/Class Time:

I will be respectful of your time and begin and end lab on time. If lab needs to be canceled for any reason, I will notify students as soon as possible by email announcement.

Grading Assignments:

Regular Lab reports that are submitted by the due date will be graded and returned/recorded in the Blackboard grade center within 10 days. Assignments that are submitted after the due date *may* take up to 14 days before I am able to grade it. Lengthy Quality Control Reports and Technique Charts will be graded over a 2-week period after the due date.

Answering Emails:

I will do my best to respond to your emails within 12 hours on weekdays and within 48 hours on weekends. Please use your Owens email account to contact me.

Announcements:

I will post any updates and/or reminders on the Blackboard Announcement page, as well as send it out to your Owens email account.

Student Hours:

These posted times (posted outside my office door, HEC133s) are designated for me to be available to meet with and assist you, outside of normal class time, with any concerns/questions you may have regarding this course or program.

Facilitating Successful Completion of the Course:

I welcome questions, concerns, and experiences relevant to the topic, course and/or professional field. We learn from each other. If appropriate, I encourage you to share and ask during lab. If not, please see me during student hours or email me. If there is a need, I will reach out to the student or class to address that need. I will make referrals to other campus resources as needed. I am aware that life is happening, and this class is not the only thing you have going on.

Student Responsibilities:

Lab expectations

The student must assume responsibility for preparing for labs. It is expected that the student will read and study the assigned material covering the unit in the text before the instructional lab session.

Students will be engaged in the lab session, focusing on lab activities **ONLY**. Students are expected to participate in lab lecture discussions and be prepared to answer questions at any time during the session.

Students working in the energized laboratory **must** wear their radiation badges at all times.

Attendance/Participation:

If the student will be absent from the assigned lab, he/she must contact the instructor prior to the laboratory session. Failure to notify will result in a "0" for the experiment missed. With the instructor's permission and **1 (one) time only**, make up for a lab missed will include the successful completion of an assignment related to the missed information, as assigned by the course instructor. This assignment will be a typed 3–4-page paper covering missed lab material and will be due one (1) week from the date of the missed lab.

Participation in lab activities is vital to the learning process and successful completion of this program. If you cannot participate in an activity, please tell me as soon as possible. I may be able to modify.

Students are expected to work only with their group member(s). Duplication of the laboratory data is not permitted and the instructor reserves the right at her discretion to penalize the student (with point value deductions) who is suspected of doing so.

Students are expected to leave the laboratory in an organized fashion, putting away test tools, densitometers, etc., in the cabinets. If the lab is not straightened at the end of each session, one point will be deducted from that week's experiment for each of the persons in the lab. Strict adherence to this policy will be made.

Inclement weather

In the case that the campus closes due to inclement weather, laboratory classes will be rescheduled to another day and time as needed.

Breakdown of Course Grades

The laboratory section will be worth 50% of the course grade; divided as follows:

Laboratory Reports	5%
Q.C. Report	9%
Technique Chart	8%
DR Technique Chart Assignment	2%
Lab Quizzes	4%
Midterm Exam	8%
Final Exam	8%
Comp Image ID	6%
	50%

Class Assignments

Laboratory Reports

There are a total of **4 laboratory reports** to be completed. Please refer to the RAD 214 Lab Manual for specific instructions. All laboratory reports are due by the beginning of the next laboratory session.

There will be a ten (10) point reduction from the lab report score for each class day the report is late. Reports will not be accepted after they are two weeks late.

Quality Control Report

The student will be required to research, develop, and submit a Quality Control Report, which will be worth 9% of the course grade. The student must submit this project in order to receive a course grade.

A. The Q.C. Report will consist of defining quality assurance and quality control, determining the necessary procedures and equipment to begin a Q.A. program, and correctly performing a number of Q.C. tests.

B. The Q.C. Report due date is listed on the lab schedule portion of this syllabus.

C. The Q.C. Report will be evaluated utilizing a rubric that will be provided by the laboratory instructor.

D. There will be a (ten) 10-point grade reduction for each calendar day that the Q.C. report assignment is late.

E. If the report is deemed unacceptable by the instructor due to excessive errors in any of the criteria areas listed in the RAD 214 Laboratory Manual, the student must revise the document. The student will be given a deadline for resubmission of the report. If the report is not re-submitted by the deadline a score of zero will be given**.** The maximum

score achievable on a rewritten report is 85%. Late submission point reductions will still apply. The student is strongly advised to obtain assistance with revisions from the Writing Center.

F. **This project will be submitted in an electronical form.**

Technique Chart

The student will be required to submit a technique chart assignment for DR digital imaging equipment. It will be worth a total of 8% of the course grade. **The student must submit this project in order to receive a course grade; an (I) incomplete grade will be assigned until this assignment is submitted.**

A. The Technique Chart will be evaluated utilizing a rubric that will be provided by the laboratory instructor. **A minimum of 85% must be obtained on the technique chart assignment.** If this score is not achieved, the instructor will return the project to the student. The technique chart assignment will be corrected and resubmitted. The maximum score achievable on a rewritten report is 85%. Late submission point reductions will still apply. The instructor will specify a deadline for the project to be resubmitted. If the technique chart is not re-submitted by the given date a score of zero will be given.

B. There will be a (ten) 10-point grade reduction for each calendar day that the technique chart assignment is late.

C. **This project will be submitted in an electronical form**

DR Technique Chart Assignment

The student will be complete an additional technique chart assignment for the DR digital imaging equipment. It will be worth a total of 2% of the course grade. The student must submit this project in order to receive a course grade; **an (I) incomplete grade will be assigned until this assignment is submitted.**

A. There will be a (ten) 10 point grade reduction for each calendar day that the DR technique chart assignment is late.

Laboratory Quizzes

Quizzes worth 4% of the lab grade will be administered **via Blackboard** at the end of each instructional session. **The student may utilize self-prepared notes for these quizzes**. The format of RAD 214 laboratory quizzes will include multiple choice, true or false, and essay questions. There will be no makeup quizzes, but the lowest quiz grade will be dropped. All laboratory quizzes are comprehensive. Quizzes are in person only.

Midterm and Final Exams

A midterm exam will be given **via Blackboard**, which will count for 8% of the course grade. A comprehensive final exam will be given covering material from the entire course. It will also count for 8% of the course grade.

Image I.D. Exam

A comprehensive image I.D. exam will be given on the date listed on the laboratory schedule portion of this syllabus. It will consist of radiographic anatomy identification of the extremities to include the shoulder and hip, headwork, spine and the UGI, LGI, biliary and urinary systems. It will count towards 6% of the lab course grade.

Make-up Exams

A make-up midterm or final exam consisting of fill-in-the-blank questions and answers will be administered if the student misses a regularly scheduled examination. To receive maximum credit, the student should notify the instructor or the secretary prior to the test session for that day. If no notification is received, the student will receive a five (5) point reduction from the score of the make-up exam. All laboratory tests are comprehensive.

OTHER

Vital Signs & Venipuncture

Students must participate in the vital signs & venipuncture laboratory practical experiences. Successful completion will serve as documentation of eligibility for the A.R.R.T. certification examination of these general patient care competencies.

RAD 214 Lab Schedule SEMESTER

Week	Topic
1 **DATE**	Q.C Introduction Q.C. Testing Week #1 *Quiz 1* QUALITY CONTROL REPORT FORMAT REVIEW QUALITY CONTROL TESTING OBJECTIVES VISUAL AND MANUAL QUALITY CONTROL ROOM CHECK QAP IN ROOM DIGITAL QA
2 **DATE**	Q.C. Testing Week #2 *Quiz 2* MAS LINEARITY/RECIPROCITY EXPOSURE TIMING - THREE PHASE
3 **DATE**	Q.C. Testing Week #3 *Quiz 3* ONE SHOT PHANTOM - HALF - VALUE LAYER
4 **DATE**	Q.C. Testing Week #4 *Quiz 4* KILOVOLTAGE CHECK FOCAL SPOT SIZE
5 **DATE**	Q.C. Testing Week #5 *Quiz 5*

	COLLIMATOR TEST X-RAY FIELD ALIGNMENT TEST X-RAY BEAM PERPENDICULARITY TEST
6 **DATE**	Q.C Testing Week #6 QUIZ 6 LEAD APRON/SHIELD CHECK ARTIFACT & REJECT
7 **DATE**	ANALYSIS / IMAGE CRITIQUE ASSIGNMENT
8 **DATE**	Radiation Protection
10 **DATE**	Midterm via Respondus with webcam **Image Analysis/ Image Critique assignment DUE**
11 **DATE**	Developing Exposure Charts/Introduction **Q.C. Testing Reports Due**
12 **DATE**	Technique Chart- Session I (T) Session II (Th)
13 **DATE**	Technique Chart- Session III (T) Session IV (Th)
14 **DATE**	Commonly Administered Drugs in Radiology
15 **DATE**	***Vital Signs/Venipuncture*** **Technique Charts Due**
16 **DATE**	Venipuncture Practical
17 **DATE** *All Students **DATE** *All Students	Final Lab Exam DATE at TIME via LOCATION Comprehensive Image ID DATE at TIME via LOCATION

Disclaimer: "The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course."