North Central State College

MASTER SYLLABUS	2025-2026

A. Academic Division: Health Sciences

B. Discipline: Radiological Science

C. Course Number and Title: RADS2440 Radiologic Procedures/Seminar 4

D. Assistant Dean: Heidi Kreglow, PT

E. Credit Hours: 3
Lecture: 1
Seminar: 1
Laboratory: 2

F. Prerequisites: RADS 2321
Co-requisites: RADS2420, RADS 2460

G. Last Course/Curriculum Revision Date: Fall 2023 Origin date: 2/11/2015

H. Textbook(s) Title:

Merrill's Atlas of Radiographic Positioning and Radiologic Procedures 3- volume Set
(Purchased in RADS1140)
- Author: Long, Rollins, & Smith
- Copyright Year: 2022
- Edition: 15th
- ISBN: 9780323832793

Quick and Easy Medical Terminology
(Purchased in RADS1140)
- Author: Leonard
- Copyright Year: 2024
- Edition: 10th
- ISBN: 9780323933469

Radiographic Pathology for Technologists
(Purchased in RADS1240)
- Author: Mace-Kowalczyk
- Copyright Year: 2021
- Edition: 8th
- ISBN: 9780323791298

RadTechBootCamp - Clover Learning Student Plan, electronic resource
- Vendor: Clover Learning Inc.
- Copyright Year: 2023
- Edition: 9781951294038

I. Workbook(s) and/or Lab Manual:

Merrill's Pocket Guide to Radiography (OPTIONAL)
(Purchased in RADS1140)

- Author: Long, Rollins & Smith
- Copyright Year: 2022
- Edition: 15th
- ISBN: 9780443116933

Merrill's Atlas of Radiographic Positioning and Procedures Workbook (OPTIONAL)
(Purchased in RADS1140)

- Author: Long, Rollins, Smith & Curtis
- Copyright Year: 2022
- Edition: 15th
- ISBN: 9780323832847

J. Course Description: Radiographic procedures of the skull, sinuses and facial bones will be introduced. Methods for imaging pediatric patients will be explored. Students will learn to modify positioning protocols for trauma patients and recognize trauma pathology on radiographs. Laboratory exercises in an energized lab provide the student with practical application of the classroom material. Radiation protection is emphasized. Medical terminology is correlated with the content of the course. Radiographic pathology of the respiratory, cardiovascular and central nervous system will be included. A one-hour seminar will cover various clinical topics. **Courses are taught in a hybrid format. The lecture and seminar portion are offered virtually using Canvas and Zoom technologies. The lab portions are taught on campus with face-to-face instruction and hands on practice.**

K. College-Wide Learning Outcomes:

College-Wide Learning Outcome	Assessments - - How it is met & When it is met
Communication – Written	
Communication – Speech	
Intercultural Knowledge and Competence	
Critical Thinking	
Information Literacy	
Quantitative Literacy	

L. Course Outcomes and Assessment Methods:

Upon successful completion of this course, the student shall:

Outcomes	Assessments – How it is met & When it is met
1. Position the body for radiographic procedures of the skull, sinuses, facial bones **and trauma procedures** on a person or phantom in a laboratory setting.	Lab exercises and lab simulation **rubric** weeks **1-15**
2. Manipulate the radiographic equipment correctly for radiographic procedures of the skull, sinuses, facial bones and trauma procedures.	Lab exercises and lab simulation **rubric** weeks **1-15**
3. Demonstrate correct radiation protection practices.	Lab exercises and lab simulation **rubric** weeks **1-15**

Outcomes	Assessments – How it is met & When it is met
4. Use appropriate and effective oral, written and nonverbal communications.	**Class discussions (weeks 1-15), Workbook assignments (weeks 1-4), Lab exercises and lab simulation rubric (weeks 1-15), written exams (weeks 4-15), Case study topic review PowerPoint presentation rubric week 8, Case study proposal presentation week 12**
5. Identify anatomic structures demonstrated on radiographic images.	**Class activity exercises (weeks 2, 4, 6, 8, 10, 12), Workbook assignments (weeks 1-4), Image matrix completion (weeks 9-15), written exams (weeks 4-15), Case study proposal presentation week 12**
6. Evaluate medical images for positioning, centering, appropriate anatomy and technical accuracy.	**Class activity exercises (weeks 2, 4, 6, 8, 10, 12), Workbook assignments (weeks 1-4), Image matrix completion (weeks 9-15), written exams (weeks 4-15), Case study proposal presentation week 12**.
7. Determine the cause-and-effect relationship between positioning the body and achieving the required outcome on the completed image.	**Lab exercises and lab simulation rubric (weeks 1-15), Workbook assignments (weeks 1-4), written exams (weeks 4-15)**
8. Modify radiographic procedures for trauma patients.	**Lab exercises and lab simulation rubric weeks 1-15**
9. Differentiate positioning methods for adults vs. pediatric patients.	**Class discussions pediatric clinical reflection with completed assignment (weeks 1-3)** Homework questions week 2, exam week 3.
10. Recognize signs, symptoms, manifestations, complications and radiographic appearance of diseases of the respiratory, cardiac, and central nervous systems.	Respiratory, **cardiac and CNS** image matrix week 11 and 12. Class exams weeks 9, 15 and 16.
11. Recognize signs, symptoms, manifestations, complications and the radiographic appearance of traumatic injuries.	Trauma lab exercises weeks 11, 12, and 13. Trauma image evaluation matrix week 8. Exam week 9.

M. Recommended Grading Scale:

NUMERIC	GRADE	POINTS	DEFINITION
93–100	A	4.00	Superior
90–92	A-	3.67	Superior
87–89	B+	3.33	Above Average
83–86	B	3.00	Above Average
80–82	B-	2.67	Above Average
77–79	C+	2.33	Average
73–76	C	2.00	Average
70-72	C-	1.67	Below Average
67–69	D+	1.33	Below Average
63-66	D	1.00	Below Average
60-62	D-	0.67	Poor
00-59	F	0.00	Failure

N. College Procedures/Policies:

North Central State College believes that every student is a valued and equal member of the community.* Every student brings different experiences to the College, and all are important in enriching academic life and developing greater understanding and appreciation of one another. Therefore, NC State College creates an inclusive culture in which students feel comfortable sharing their experiences. Discrimination and prejudice have no place on the campus, and the College takes any complaint in this regard seriously. Students encountering aspects of the instruction that result in barriers to their sense of being included and respected should contact the instructor, assistant dean, or dean without fear of reprisal.

* *Inclusive of race, color, religion, gender, gender identity or expression, national origin (ancestry), military status (past, present or future), disability, age (40 years or older), status as a parent during pregnancy and immediately after the birth of a child, status as a parent of a young child, status as a foster parent, genetic information, or sexual orientation*

Important information regarding College Procedures and Policies can be found on the syllabus supplement located at

https://ncstatecollege.edu/documents/President/PoliciesProcedures/PolicyManual/Final%20PDFs/14-081b.pdf

North Central State College

SYLLABUS ADDENDUM

Academic Division:	Health Sciences	**Discipline:**	Radiologic Technology
Course Coordinator:	Dorie Ford		
Course Number:	RADS 2440-910	**Course Title:**	/Radiologic Procedures 3
Semester / Session:	Fall 2025	**Start / End Date:**	08/11/2025 to 12/12/2025

Instructor Information

Name:	Dorie Ford	**Credentials:**	M.S.Ed R.T.(R)(M)
Phone Number:	419-755-4886	**E-Mail Address:**	dford@ncstatecollege.edu
Office Location:	152 HS	**Office Hours:**	Monday 10:00 am – 11:00 am, Tuesday 11:00 am – 2:00 pm and Thursday 11:00 am – 12:00 pm

I. Topical Timeline / Course Calendar (Subject to Change):

Weeks	Topics	Assignment	Due Date
1	Pediatric Radiography	Recorded Lectures/Notes Class activity Image analysis Pediatric lab activity	8-14-25
2	Skull Radiography	Recorded Lecture/Notes Practice Quiz RTBC Lab practice	8-21-25
3	Orbit Radiography	Recorded Lecture/Notes Practice Quiz Worksheet orbits/skull Lab Practice	8-28-25
4	Sinuses Radiography	Recorded Lecture/Notes Practice Quiz – quizziz RTBC Lab practice	9-4-25
5	Facial Radiography	Recorded Lecture/Notes Practice Quiz Scavenger Hunt Lab practice	9-11-25
6	Mandible/TMJ Radiography	Recorded Lecture/Notes Practice Quiz RTBC	9-18-25
7	Introduction to Trauma	Recorded Lecture/Notes Reading assignment Lab practice	9-25-25
8	Trauma Best Practices	Recorded Lecture/Notes Case study Practice Quiz Lab practice	10-2-25
	Fall Break-No Class		10-9-25

Weeks	Topics	Assignment	Due Date
9	Trauma Radiology	Recorded Lecture/Notes Case study Practice Quiz Lab practice	10-16-25
10	Respiratory Pathology	Recorded Lecture/Notes Video assignment Image evaluation Lab practice-chest radiography	10-23-25
11	Respiratory Pathology PICC lines	Recorded Lecture/Notes Practice quizzes Image Evaluation Lab practices trauma	10-30-25
12	Cardiovascular System Pathology	Recorded Lecture/Notes Practice quizzes Scavenger Hunt Image Evaluation	11-6-25
13	Cardiovascular System	Worksheet Lab Activity Lab practice-trauma	11-13-25
14	Image Evaluation Radiography Procedures	Worksheet Image evaluation Lab practice-trauma	11-20-25
15	Image Evaluation Radiography Procedures	Worksheet Image evaluation Lab practice-trauma	11-27-25
16	Final Exam Recap	Review of notes Worksheets Lab practice-trauma	12-4-25
17	Final Exam		12-11-25

II. Grading and Testing Guidelines:

Final Grade Calculation

Activity	Qty	Points	Percentage
Exams			60%
Final Exam			20%
Other graded items			10%
Lab			10%

1. **Minimum Course Grade:**
   The Radiological Department believes that a grade below C+ indicates lack of mastery of essential skills. Therefore, any student who receives less than C+ in any Radiological Science sequence course cannot continue in Radiologic Technology

III. Examination Policy:

1. Students must attend class when tests, oral presentations and written assignments are scheduled. If the student does not attend class on these days the following deductions will be applied:

    1. first missed test = minus 10% from the earned score
    2. second missed test = minus 15% from the earned score

3. third missed test = minus 20% from the earned score
4. additional missed tests= zero score

2. A student who arrives late to class for a test may not be permitted to take the test at that time. The test will then be treated as a make-up test with the appropriate deduction from the earned score

3. The reasons that a student may be excused from a test, oral presentation, written assignment or lab and not receive a deduction in the earned test score are as follows:

1. Personal illness or illness of immediate family (doctor's excuse required)
2. Personal hospitalization or hospitalization of an immediate family member (documentation required)
3. Death in the immediate family (documentation required)

4. Course exams will be proctored over Zoom. The student will use two devices (phone and computer) while faculty proctor the exam. Each exam on Canvas creates a real-time log of the student's activities while in the exam tab. Navigation away from the exam tab while taking the exam is not permitted for any reason. Exam logs are randomly checked by faculty after each test. Any student who navigates from the exam tab during the exam will receive a zero on the test and a written warning. Any student who navigates away from the exam tab more than one time will receive a zero on the test and will be subject to the college's academic misconduct process.

5. Mandated tutoring is required and assigned. Attendance will be taken. Points for tutor attendance will be applied to the course grade.

Lab Grading Policy

When a lab simulation is scheduled, students are expected to come to lab prepared to practice or perform the lab simulation. This means the student must read and study the lab manual prior to lab.

A student must receive **80% (24/30)** or higher to pass a lab simulation. When a student fails a lab simulation these assumptions can be made:

1. The student did not prepare for the lab simulation in advance by reviewing and practicing

- OR –

2. The student has weaknesses that must be identified and corrected so that these weaknesses do not degrade clinical performance.

Students who do not pass a lab simulation will be required to perform a repeat simulation. On a repeat simulation 10% will automatically be deducted from the final score. Students must pass the repeat simulation with **80% (24/30) after the 10% deduction**. If the student fails the repeat simulation, the student will receive a **zero** for that simulation but will be required to simulate until the student has demonstrated satisfactory skills on the exam. Additional make up labs may be scheduled by the instructor

IV. Class Attendance and Homework Make-Up Policy:

1. In any circumstance where a student will miss class or lab, the student must send a message to the instructor through Canvas prior to the start of the class. The instructor will contact the student via Canvas later in the day with instructions for the make-up test. Make-up tests are scheduled as close as possible to the date of the missed test.

2. Homework and other assignments receive full credit only when submitted on time. Late homework will receive a deduction of 50%. Homework will not be accepted after seven days post assignment due date. Homework may be excused if the student has the required accepted documentation as mentioned above. Homework will be graded within 7 days after the due date.

3. There is a close correlation between lab performance and clinical performance. When a student successfully completes a lab simulation it demonstrates that the student is ready to perform the procedure on a patient at the clinical site. Students must attend all scheduled labs (attendance is taken) The student will receive 2 points for each lab attended and 2 points for following the required lab dress code. If the student misses a lab, 4 points will be deducted. A student may be excused from missing lab if proper documentation is provided for one of the reasons mentioned above.

V. Classroom Expectations:

course delivery guidelines

Since this is a hybrid course and part of course content is delivered outside of the classroom, (i.e., your home), it is expected that you have a designated learning space. This would be a space free of distractors such as pets, children, siblings, parents, radio and television. In this space you will have adequate lighting, all electronic devices needed and textbooks and notes. **You will not be permitted to attend to these distractors during a test.**

2. For Zoom lectures:

- Be dressed, sitting up, and have the camera on unless otherwise instructed
- Go to the bathroom and remove your pets from the Zoom area before class
- Mute your mic unless you would like to talk or ask questions.
- Complete the required weekly content before class and be prepared to participate in class
- Read the textbooks as directed and supplement class notes.
- Complete assignments by the due date. Pay attention to due dates.
- Have the required material on hand at the time of class (notes, books, etc.)
- Participate in class discussions, ask and answer questions.
- Review the day's material or complete other assignments as you wait for others to finish the test.
- Stay on task when given in-class activities and group assignments. Review material if done early.

3. Demonstrate professional oral and written communication (discussion boards, emails to the instructor, class discussions, group activities)

4. Cell phone use is not permitted in hybrid courses or labs. If a student has their cell phone out or if it rings or vibrates loud enough for others to hear, the student will pay $1.00 to the Robert L. Garber scholarship fund.

5. Treat classmates and the instructor with respect

6. Use course resources wisely for exam preparation. Examples of resources include:

- ✓ Recorded lectures/notes
- ✓ Study Guides
- ✓ Practice Quizzes
- ✓ RTBC
- ✓ Worksheets
- ✓ Group activities
- ✓ Class discussion
- ✓ Lab

- ✓ Tutoring/Instructors as resources