



North Central State College
MASTER SYLLABUS
2019-2020

- A. Academic Division: Health Sciences
- B. Discipline: Radiological Science
- C. Course Number and Title: RADS2440 Radiologic Procedures/Seminar 4
- D. Course Coordinator: Dorie Ford R.T. (R) (M), BSPA, M. Ed.
Assistant Dean: Melinda Roepke, MSN, RN

Instructor Information:

- Name: Dorie Ford
- Office Location: HS-152
- Office Hours: TBD
- Phone Number: 419-755-4886
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- E. Credit Hours: 3
Lecture: 1
Seminar: 1
Laboratory: 2
- F. Prerequisites: RADS 2321
Co-requisites: RADS2420, RADS 2460
- G. Syllabus Effective Date: Fall, 2019
- 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: 2019
- Edition: 14th
- ISBN: 97803235566674

Quick and Easy Medical Terminology
(Purchased in RADS1140)

- Author: Leonard
- Copyright Year: 2017
- Edition: 8th
- ISBN: 9780323359207

Radiographic Pathology for Technologists
(Purchased in RADS1240)

- Author: Mace-Kowalczyk
- Copyright Year: 2017
- Edition: 7th
- ISBN: 9780323416322

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

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

- Author: Long, Curtis, & Smith
- Copyright Year: 2015
- Edition: 13th
- ISBN: 9780323311960

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

- Author: Long, Rollins, Smith & Curtis
- Copyright Year: 2019
- Edition: 14th
- ISBN: 9780323597043

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.

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. Topical Timeline (Subject to Change):

Week 1 Pediatric imaging

Week 2 Pediatric imaging continued

Seminar Topic: **Pediatric Clinical Assignment (weeks 1-2)**

Week 3 Skull and orbit radiography

Seminar Topic: **Image evaluation of the skull and orbits (week 3)**

Week 4 Facial bone and nasal bone radiography

Week 5 Mandible and TM joint radiography

Week 6 Sinus radiography

Seminar Topic: **Facial bones and sinuses (week 4-6)**

Week 7 Trauma radiography

Seminar Topic: Capstone case study topic and proposal review (week 7)

Week 8 Trauma pathology

Week 9 Trauma pathology continued

Seminar Topic: Trauma Radiology Image Evaluation (week 9)

Week 10 CNS pathology

Seminar Topic: Pathology Image matrices (week 10-14)

Week 11 Respiratory pathology

Week 12 Respiratory pathology continued

Week 13 Cardiovascular pathology

Week 14 Cardiovascular pathology

Week 15 Review for Final Exam

Seminar Topic: Capstone Case Study Discussion (week 15)

Week 16 Final Exam

N. Course Assignments:

- Lecture/PowerPoint presentations
- Lecture note outlines
- Student worksheets/homework
- Small group activities
- Class discussions
- Lab simulations and exercises
- Workbook Assignments
- Image Matrix
- Written Exams
- Role playing
- Supervised practice in the college lab
- Independent practice in the college lab
- Computer assisted instruction (**Canvas** modules, radiography essentials)
- Written assignments
- Canvas utilization for instruction and communication
- Assigned readings
- Review of medical images

O. 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

P. Grading and Testing Guidelines:

Exams	65% of grade
Lab	15% of grade
Homework	15% of grade
Participation	5% of 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.

Q. Examination Policy:

Policy for a missed test or oral or written presentation:

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

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.

In any circumstance where a student will miss class 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 and/or homework missed. The instructor will not call the student to arrange make up. Make-up tests are scheduled as close as possible to the date of the missed test.

The reasons that a student may be excused from a test, oral presentation or written assignment 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)

Lab Grading Policy

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. If a student misses a lab or is late to the lab 2 points will be deducted for the lab. Students may be excused from lab for the above named reasons if proper documentation is provided. If the student does not follow the correct dress code for lab, 2 points will be deducted from lab.

When a lab simulation is scheduled in the lab, students are expected to come to lab prepared to perform the lab simulation. 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 as a grade for that simulation but will be required to simulate the exam until the student has demonstrated satisfactory skills on the exam. Additional make up labs may be scheduled by the instructor to accommodate repeat simulations.

R. Class Attendance and Homework Make-Up Policy:

Most classes include homework assignments. If a student misses a class, it is the student's responsibility to find out from the instructor what the homework assignment was and to obtain homework papers if applicable. Students are given full credit for homework only if it is completed and in class on time. If a student would like partial credit for homework it is the student's responsibility to present the finished homework to the instructor in the next class. The instructor will not chase down or ask for missed homework. A zero is assigned for all missing homework.

Lab Attendance and Practice Expectations

Students are required to attend their assigned lab each week. If a student misses an assigned lab, he/she is may be required to attend another lab the same week or two labs the following week to stay current with practicing and simulating the material or will be required to practice and get signed off on the exam by the clinical instructor at clinical education.

It is the responsibility of the student to master the skills that are necessary to successfully complete the assigned simulations. This usually means that the student will need to come in to the radiology lab outside of their scheduled lab times to gain additional practice.

S. Classroom Expectations:

Do not sleep in class.

Look at the course calendar and read assigned material before class to have a general understanding of the information presented. Be prepared to participate in class discussions. Ask and answer questions.

Read lab assignments prior to lab. **Know the material before coming to lab to avoid having to read the material for the first time during lab when hands-on practicing should occur.**

Complete and turn in homework on time.

Come to class with the required material: textbooks, class notes, workbooks, notebooks, homework, assignments, etc.

Demonstrate professional behavior and use language appropriate for classroom learning experience.

When tutoring is offered and suggested, take advantage of the opportunity.

Use all resources available to you to help understand the material: instructors, tutors, Canvas, class notes, homework assignments, group activities, textbooks, lab images

Stay on task when given in-class activities and group assignments. If a group finishes early the members should read and review material presented in class, update class notes or any other educational activity. Ask the instructor if there are any questions.

Treat other class members with respect at all times.

Cell phone use is not permitted during class unless the instructor asks you to use your cell phone for learning activities. Any student's cell phone that rings, vibrates loudly, or is used for texting during class will result in a \$1.00 fine from that student. Monies collected from cell phone fines will be donated to the Robert L. Garber Scholarship for radiology students.

Policy on Social Media

All course material (lectures, slides, documents, worksheets, tests, lab activities, and all other material from this course and on Canvas) is presented with a non-written copyright which prohibits students from using the material without the instructor's permission. Students are not permitted to post course material or take pictures of lab procedures and post the information on ANY webpage or social media device. The use of the faculty name or course name is prohibited.

T. College Procedures/Policies:

Important information regarding College Procedures and Policies can be found on the [syllabus supplement](https://sharept.ncstatecollege.edu/committees/1/curriculum/SiteAssets/SitePages/Home/SYLLABUS%20SUPPLEMENT.pdf) located at <https://sharept.ncstatecollege.edu/committees/1/curriculum/SiteAssets/SitePages/Home/SYLLABUS%20SUPPLEMENT.pdf>

The information can also be found in Canvas