



North Central State College  
MASTER SYLLABUS  
2019-2020

- A. Academic Division: Health Sciences
- B. Discipline: Radiological Science
- C. Course Number and Title: RADS1140 Radiologic Procedures/Seminar 1
- D. Course Coordinator: Dorie Ford R.T. (R) (M), BSPA, M. Ed.  
Assistant Dean: Melinda Roepke, MSN, RN

Instructor Information:

- Name: [Click here to enter text.](#)
- Office Location: [Click here to enter text.](#)
- Office Hours: [Click here to enter text.](#)
- Phone Number: [Click here to enter text.](#)
- E-Mail Address [Click here to enter text.](#)

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

- F. Prerequisites: None  
Co-Requisites: RADS1120 (m)

- G. Syllabus Effective Date: Fall, 2019

- H. Textbook(s) Title:

*Merrill's Atlas of Radiographic Positioning and Radiologic Procedures 3- volume Set*

- Author: Long, Rollins, & Smith
- Copyright Year: 2019
- Edition: 14th
- ISBN: 97803235566674

*Quick and Easy Medical Terminology*

- Author: Leonard
- Copyright Year: 2017
- Edition: 8<sup>th</sup>
- ISBN: 9780323359207

Workbook(s) and/or Lab Manual:

*Merrill's Pocket Guide to Radiography*

- Author: Frank
- Copyright Year: 2015
- Edition: 13<sup>th</sup>
- ISBN: 9780323311960

*Merrill's Atlas of Radiographic Positioning and Procedures Workbook*

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

J. Course Description: This course will provide an introduction to the basic steps in completion of a radiographic examination from the beginning of the procedure to the end of the procedure. Radiographic procedures of the chest, abdomen, and appendicular skeleton will be presented. Mobile X-ray procedures and surgical X-ray procedures will be introduced. The students will develop an understanding of how to use age-appropriate communication in the clinical setting. 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 images will be evaluated. 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 chest, abdomen, upper and lower limb on a person or phantom in a laboratory setting.	lab exercises and lab simulations weeks 3-6, 7-9, 10-13
2. Manipulate the radiographic equipment correctly for radiographic procedures of the chest, abdomen, upper and lower limb.	lab exercises and lab simulations weeks 3-6, 7-9, 10-13
3. Demonstrate correct radiation protection practices.	lab exercises and lab simulations weeks 3-6, 7-9, 10-13
4. Use appropriate and effective oral, written and nonverbal communications.	Medical Terminology test week 12, lab exercises and lab simulations weeks 3-6, 7-9, 10-13, class exams weeks 5,8, and 15, age-appropriate communication class presentation and discussion, seminar discussions
5. Identify anatomic structures demonstrated on radiographic images.	Anatomy worksheets week 3, 5, 9, image evaluation group activities weeks 3-4, 6-7, and 12, on-line modules weeks 4, 5, 7, 11, class exams weeks 5,8 and 15
6. Evaluate medical images for positioning, centering, appropriate anatomy and technical accuracy.	Anatomy worksheets week 3 and 10, image evaluation group activities weeks 3-4, 6-7, on-line modules weeks 4, 5, 7, 11 class exams weeks 5,8 and 15

Outcomes	Assessments – How it is met & When it is met
7. Determine the cause-and-effect relationship between positioning the body and achieving the required outcome on the completed image.	lab exercises and lab simulations weeks 3-6, 7-9, 10-13, cause-and-effect group activities week 11, class exams weeks 5,8 and 15, on-line modules weeks 4, 5, 7, 11 final exam week 16
8. Adapt radiographic procedures for special conditions	Lower limb case study rubric week 12, case study round robin class activity week 12, age-appropriate communication class presentation and discussion, seminar discussions lab exercises week 12 and 13.

M. Topical Timeline (Subject to Change):

Week 1	Introduction to the Course Preliminary steps in radiology Seminar topic: Clinical Policies and Procedures (weeks 1-3)
Week 2	Preliminary steps in radiology continued
Week 3	General anatomy and radiographic positioning terms
Week 4	Chest radiography Seminar topic: Health Care Environment (weeks 4-7)
Week 5	Abdominal radiography
Week 6	Anatomy of the upper limb Finger/hand/wrist radiography
Week 7	Forearm/elbow/humerus radiography
Week 8	Introduction to mobile imaging Overview of correct lead marker placement Seminar topic: Professionalism (weeks 8-11)
Week 9	Lower Limb Anatomy
Week 10	Foot/toe radiography
Week 11	Ankle/calcaneus radiography
Week 12	Knee/patella/femur radiography Long bone radiography Seminar topic: Age-appropriate communication (weeks 12-15)
Week 13	Lower limb case study
Week 14	Introduction to surgery
Week 15	Review for Final Exam
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  
Role playing  
Supervised practice in the college lab  
Independent practice in the college lab  
Computer assisted instruction (Evolve 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:

Students will receive a detailed course calendar. Class exams and lab simulations will be scheduled on the course calendar.

**Policy for a missed test or oral or written presentation:**

A student will receive a zero for a missed test or an oral or written assignment if the student has not contacted the instructor prior to the event. Contact may be made through a phone call to the office (may leave message)

or through an e-mail to [dford@ncstatecollege.edu](mailto:dford@ncstatecollege.edu). **A follow up message will occur later that same day from the instructor to the student's ncstate e-mail address informing the student about make up testing, lab and/or homework. The instructor will not call the student to arrange make up.**

In addition, student absences on test days are tracked. For each test in the course that a student misses the following deductions are taken assuming the student has notified the instructor prior to the test.

The 1 <sup>st</sup> missed test/event	No deduction from score
The 2 <sup>nd</sup> missed test/event	Minus 5% from earned score
The 3 <sup>rd</sup> missed test/event	Minus 8% from earned score
Additional missed test/event	Zero

Depending on the type of test missed and the time constraints students will make-up tests either in the Health Science Building or in the Make-Up Proctoring Service offered by the college in Kee Hall.

### **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.

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** for that simulation but will be required to simulate until the student has demonstrated satisfactory skills on the exam. Additional make up labs will 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 required to attend another lab the same week or two labs the following week to stay current with practicing and simulating the material. Arrangements with the instructor must be made in advance.

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. Students may spend additional time practicing in the labs on weekdays until 6:45 PM and weekends from 12:00 – 4:00 PM

S. Classroom Expectations:

Look at the course calendar and read assigned material before class to have a general understanding of the information presented.

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

Complete homework on time.

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

Participate in class discussions, ask and answer questions.

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

Stay on task when given in-class activities and group assignments. If a group finished 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 Evolve) 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** Choose an item.