



North Central State College
MASTER SYLLABUS
2019-2020

- A. Academic Division: Health Science
- B. Discipline: Radiological Sciences
- C. Course Number and Title: RADS 1160 Imaging Science 1
- D. Course Coordinator: Ellen Johnson, M.Ed., R.T. (R)
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.](#)
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- E. Credit Hours: 3
Lecture: 2
Laboratory: 3
- F. Co-requisites: RADS 1120 (m), RADS 1140 (m), BIOL 2751 (c), STAT 1010 (c), HLTH 1150 (c)
- G. Syllabus Effective Date: Fall, 2019
- H. Textbook(s) Title:

Introduction to Radiologic Sciences and Patient Care

- Authors: Adler and Carlton
- Copyright Year: 2018
- Edition: 7th
- ISBN: 9780323566711

Basic Life Support for Healthcare Providers

- Authors: American Health Association
- Copyright Year: 2011
- Edition: Most recent
- ISBN: 9781616690397

Radiation Protection in Medical Radiography

- Authors: Statkiewicz and Sherer
- Copyright Year: 2018
- Edition: 8th
- ISBN: 9780323446662

Radiographic Image Analysis

- Authors: McQuillen
- Copyright Year: 2015
- Edition: 4th
- ISBN: 9780323280525

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

J. Course Description: This course is designed to provide an overview of the radiographer’s role in the healthcare delivery system. The course introduces concepts related to the profession, patient care assessments, radiation protection, basic radiographic equipment and image analysis standards. The lab setting will permit application of these skills.

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. Demonstrate /earn BLS certification	CPR skills test and written test – week 6-8
2. Demonstrate quality patient care skills.	Patient care rubric, Week 13-14
3. Recognize and provide appropriate actions in a medical emergency	Lab simulations Week 10 -12
4. Describe practice standards for the radiographer.	Discussion / HIPAA video/test Week 2-4
5. Explain the use of various communication techniques with patients.	Lab simulations -Week 1-3
6. Describe vital signs and lab values used to assess patient condition and perform vital signs.	Test -Week 5-6 Rubric Week 12
7. Define and identify radiation units and terms	Test Week 3-5
8. Explain and utilize radiation protection measures to reduce exposure to self, patients and general public.	Lab simulations Week 5, 7, 9
9. State image appearance standards.	Lab exercise Week 10-12
10. Analyze selected radiographic images for diagnostic quality.	Lab activity Week 14-15

M. Topical Timeline (Subject to Change):

Week 1	Introduction to Radiation Protection; Radiation: Types, Sources and Doses
Week 2	Radiation Quantities and Units; Dose Limits for Exposure to Ionizing Radiation
Week 3	Human Diversity; Patient Interactions; History Taking
Week 4	Equipment Design for Radiation Protection; Management of Patient Rad. Dose
Week 5	Management of Patient Rad. Dose
Week 6	Safe Patient Movement: Immobilization Techniques;
Week 7	Interaction of X-radiation with Matter; Introduction to the Prime Factors
Week 8	Management or Imaging Personnel Rad. Dose
Week 9	Management or Imaging Personnel Rad. Dose
Week 10	Vital Signs and Oxygen, Chest Tubes and Lines
Week 11	Vital Signs and Oxygen, Chest Tubes and Lines
Week 12	Introduction to Image Analysis

Week 13	Development of Imaging Standards
Week 14	Infection Control
Week 15	Aseptic and Non-aseptic Techniques; Medical Emergencies
Week 16	Comprehensive Final

N. Course Assignments:

Weekly Reading	Skills practice	Lab exercises/simulations
Worksheets	Oral Presentations	
Chapter Review Questions	Progressive Tests	

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:

6 tests @ 60 points each	360 points
Vital Signs test	30 points
Homework	40 points
Lab	60 points
Participation	20 points
Comprehensive Final	165 points
Total	675 points

Q. Examination Policy:

Test dates are given on the course calendar which is handed out on the first class day. Every attempt will be made to follow this schedule. However, if a change is needed it will be announced in class. If a test has to be changed, I will give the class at least one week notice.

The Radiology Department believes that a grade below C- indicates a lack of mastery of essential content and skills. Any student who receives less than C- in any radiological sequence course cannot continue in the program or meet graduation requirements.

R. Class Attendance and Homework Make-Up Policy:

Generally, the student will be expected to make-up any missed test/quiz on the next day that student is on campus OR using the campus make-up test service, whichever comes first. Exceptions may be made at faculty discretion. The student **must speak to the instructor directly** or communicate through email

before the next class meeting time so make-up arrangements can be made. If I haven't talked to you directly, I will email you. All emails posted prior to 10 pm are valid even if you are not aware of the email.

S. Classroom Expectations:

All students are expected to be in class and on time. If a student cannot make it to class they are to call or email the instructor before the scheduled start of class. Any student missing a quiz/test or assignment deadline may not take the quiz/test or hand in the assignment late unless calling in / emailing before class starts.

1. If you miss a class period, you are responsible for all material covered that period and are expected to be prepared for the next class. Please communicate directly with the instructor if you miss a class.
2. Students should call if unable to be in class. Students must call in on the day of a test or assignment prior to the beginning of class. **Failure to do so will result in a 10% deduction from the student's score on that test.**
Participation points will be subtracted for tardiness, absences, and leaving class early. Again, talk to me before the next class.

NOTE: In all cases, the student must call prior to the beginning of class.

The first missed test/assignment	No deduction from score
The second missed test/assignment	Minus 8% from earned score
Additional missed test/assignment	Zero

Any student who arrives late 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.

3. All students are expected to demonstrate professional behavior in the classroom and use language appropriate for the classroom learning experience.
4. Cell phone use is not permitted during class time. 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.

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.