North Central State College

MASTER SYLLABUS	2025-2026

A. Academic Division: Health Sciences

B. Discipline: Radiological Science

C. Course Number and Title: RADS2420 Clinical Practicum 4

D. Assistant Dean: Heidi Kreglow, PT

E. Credit Hours: 2
Practicum: 14 hour

F. Prerequisites: RADS2360
Co-requisites: RADS2460 (m)

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

H. Textbook(s) Title: None

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

J.

Radiologic Sciences Policy and Procedure Manual (provided to the student in the first semester of the program)

J. Course Description: Clinical Practicum is designed to provide students with practical application of material learned in didactic courses. In this course students will continue to perform radiographic procedures under the appropriate level of supervision of qualified radiographers. Introductory clinical rotations will be schedule in the modalities of CT and MRI to help students gain an understanding of cross-sectional anatomy and the role these special imaging modalities play in the diagnosis of diseases. Student will rotate to a pediatric hospital to gain experience imaging pediatric patients. Students complete clinical objectives and competencies.

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. Use appropriate and effective written, oral and nonverbal communication with patients, the public and members of the health care team in the clinical setting.	Observation and evaluation of students obtaining a patient history, providing instruction and oral feedback to patients during examinations, presenting cases to physicians, and by interacting with other medical staff each clinical day weeks1-3, 4-6,7-9,10-12,13-15. Clinical instructor evaluation weeks 8 and 15. Clinical notebook check weeks 8 and 15. Pediatric and trauma objectives weekly by student
2. Perform medical imaging procedures under the appropriate level of supervision.	Radiographer evaluations weeks 5-7, 8-10,11-13, 14 and 15, clinical instructor evaluations weeks 8 and 15, clinical competencies 5-7, 8-10,11-13, 14 and 15. Tally sheet week 15
3. Provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity or culture.	Radiographer evaluations weeks 5-7, 8-10,11-13, 14 and 15, clinical instructor evaluations weeks 8 and 15, clinical competencies 5-7, 8-10,11-13, 14 and 15. Pediatric objectives, Trauma objectives weekly by student
4. Demonstrate competency in the principles of radiation protection standards.	Radiographer evaluations weeks 5-7, 8-10,11-13, 14 and 15, clinical instructor evaluations weeks 8 and 15, clinical competencies 5-7, 8-10,11-13, 14 and 15. Clinical exam week 16
5. Demonstrate knowledge of correct positioning skills on patients.	Radiographer evaluations weeks 5-7, 8-10,11-13, 14 and 15, clinical instructor evaluations weeks 8 and 15, clinical competencies 5-7, 8-10,11-13, 14 and 15. CT and MRI objectives week 15. Discussion board (rubric) weeks 4-7 and 8-11. Clinical exam week 16
6. Operate medical imaging equipment correctly.	Radiographer evaluations weeks 5-7, 8-10,11-13, 14 and 15, clinical instructor evaluations weeks 8 and 15, clinical competencies 5-7, 8-10,11-13, 14 and 15. CT and MRI objectives week 15.
7. Provide patient safety.	Radiographer evaluations weeks 5-7, 8-10,11-13, 14 and 15, clinical instructor evaluations weeks 8 and 15, clinical competencies 5-7, 8-10,11-13, 14 and 15.
8. Enter data correctly into the clinical facility's HIS/RIS system	Radiographer evaluations weeks 5-7, 8-10,11-13, 14 and 15, clinical instructor evaluations weeks 8 and 15, clinical competencies 5-7, 8-10,11-13, 14 and 15
9. Select technical factors to produce quality diagnostic images with the lowest radiation exposure possible	Radiographer evaluations weeks 5-7, 8-10,11-13, 14 and 15, clinical instructor evaluations weeks 8 and 15, clinical competencies 5-7, 8-10,11-13, 14 and 15. CT and MRI objectives week 15. Clinical exam week 16
10. Evaluate images for appropriate anatomy, image quality and patient identification	Radiographer evaluations weeks 5-7, 8-10,11-13, 14 and 15, clinical instructor evaluations weeks 8 and 15, clinical competencies 5-7, 8-10,11-13, 14 and 15. CT and MRI objectives week 15. Clinical exam week 16
11. Integrate the appropriate personal and professional values into clinical practice.	Clinical instructor evaluations weeks 8 and 15 (Section 1).

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 Science	**Discipline:**	Radiological Sciences
Course Coordinator:	Heidi Chambers		
Course Number:	RADS 2420	**Course Title:**	Clinical Practicum 4
Semester / Session:	Fall 2025 / Full 16 Week Session	**Start / End Date:**	8/11/2025 thru 12/12/2025

Instructor Information

Name:	Heidi Chambers	**Credentials:**	BRST, R.T. (R)
Phone Number:	419-755-4809	**E-Mail Address:**	hchambers@ncstatecollege.edu
Office Location:	152 Health Sciences Building	**Office Hours:**	By appointment, in person or via zoom Tues 2p-4p; Wed: 11a-12p; Thurs 12p-2p

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

Weeks	Topics	Assignment	Dates
1	Pediatric Radiography	Akron Children's Rotation Nationwide Children's Rotation Clinical Practice, objectives and Competency	Various rotation dates week 3-14
2	Skull Radiography	Clinical Practice and Competency	
3	Orbit Radiography	Clinical Practice and Competency	
4	Sinuses Radiography	Clinical Practice and Competency	
5	Facial Radiography	Clinical Practice and Competency	
6	Mandible/TMJ Radiography	Clinical Practice and Competency	
7	Introduction to Trauma	Grant Medical Center Rotation (Level 1 Trauma Center) Clinical Practice, Objectives and Competency	Various rotation dates week 3-14
8	Trauma Best Practices	Grant Medical Center Rotation (Level 1 Trauma Center) Clinical Practice, Objectives and Competency	Various rotation dates week 3-14
Fall Break Oct 6-11			
9	Trauma Radiography	Grant Medical Center Rotation (Level 1 Trauma Center) Clinical Practice, Objectives and Competency	Various rotation dates week 3-14
10	Respiratory Pathology	Clinical Practice and Image Analysis	
11	Respiratory Pathology/PICC lines	Clinical Practice and Image Analysis	
12	Cardiovascular System Pathology	Clinical Practice and Image Analysis	
13	Cardiovascular System	Clinical Practice and Image Analysis	
14	Image Evaluation Radiography Procedures	Clinical Practice and Image Analysis	
15	Image Evaluation Radiography Procedures	Clinical Practice and Image Analysis	
16	Image Evaluation Radiography Procedures	Clinical Practice and Image Analysis	
17	Clinical Final	Exam	Dec 8

II. Grading and Testing Guidelines:

Final Grade Calculation

Activity	Qty	Points	Percentage
1. Daily Tech Evaluations			10%
2. Competencies	14		30%
3. Clinical Instructor Evaluation	2		35%
4. Clinical Test	1		25%
		Total	100%

1. The students designated clinical preceptor will complete an evaluation of Activities 1-3 of the final grade calculation.
2. Program faculty will proctor Activity 4 of the final grade calculations.
3. **NOTE:** The overall clinical course grade is weighted. If a student does not pass clinical course with an 85% or higher, they will receive a no pass. The student will not be permitted to continue clinical courses and therefore cannot continue in the radiology program.

III. Clinical Competency Policy:

1. Students will be expected to perform clinical competencies throughout the semester
   a. The student must pass a clinical simulation at NCSC before attempting any competency exam.
   b. The student must receive a score of two in all applicable starred areas of the competency AND
   c. The student must receive an 85% or higher to pass.

2. A student who does not receive a score of two in all applicable starred areas and/or receives less than 85% total will be required to retake the competency.
   a. All repeat competencies must be completed with the designated clinical preceptor.
   b. On repeat, 10% will automatically be deducted from the final score.
   c. A student must receive an 85% or higher to pass repeat competency.

3. Fourteen clinical competencies are required for this semester.
   a. The student will demonstrate required competencies through any clinical procedure listed in the current semester's topical timeline or from previous semester's topics, provided the competency has not be previously completed.
   b. The student is responsible for alerting their designated clinical preceptor of their wish to perform all competencies. The preceptor may delegate another certified technologist if unavailable.
   c. On completion of fourteen successful competencies, a student may perform 5 additional competencies in the "Free Zone." Free zone competencies will be applied to next semester requirements.
   d. All Free zone competencies must be completed with the students designated clinical preceptor.

IV. Clinical Attendance and Make-Up Policy:

1. Clinical attendance is necessary in obtaining a high level of competency.

2. Students are responsible for attending all clinical rotation days.
   a. The student will clock 30 clinical days/225 hours.
   b. The student will clock time (in and out) through Trajecsys.
   c. The student will be on time and not clock out before the end of the clinical day.

3. Clinical absences, unverified clock times, early clock outs are documented as an occurrence.
   a. The student will refer to the NCSC Radiological Sciences Policy and Procedure Manual for Clinical Education for a complete list of occurrences.
   b. All missed time from occurrences require make up time.

4. If a student misses clinical time for any reason, a Clinical Make-Up plan will be coordinated and approved with the designated clinical preceptor.
   a. The make up plan must reflect the same or similar hours missed and be the same or similar clinical rotation missed.
   b. All make up time must be completed before the end of semester date to avoid a No Pass for a clinical grade.
   c. Make up time cannot occur during weekend or holiday hours.
   d. Program faculty and clinical preceptors reserve the right to schedule or deny make-up plan requests.

V. Clinical Expectations:

1. **The NCSC Student Radiographer is expected to:**
   a. Adhere to all policies and procedures written in the student policy and procedure manual for clinical education.
   b. Adhere to all policies of NCSC in the student handbook
   c. Adhere to all policies and procedures required by the sponsoring clinical facility.
   d. Demonstrate professionalism required in the hospital setting and in the health care field:
      - Dress professionally
      - Act professionally
      - Speak and write in a professional manner using terminology essential to the profession
      - Treat patients with dignity and respect according to the Patient's Bill of Rights
      - Display excellent attendance
      - File and/or complete all required clinical documentation in a timely manner

   e. Practice radiation protection according to the **ALARA (as low as reasonably achievable)** principle

   For Patients:
      - Minimal repeat exposures
      - Provide shielding for all patients and staff
      - Use smallest collimation size without interfering with the completed image
      - Chose correct technical factors appropriate for the patient's size and age

   For Worker/Students:
      - Employ Cardinal Principles: Minimize time, maximize distance and shielding
      - Limit amount of time near radiation source
      - Maintain minimum of 6ft distance from radiation source
      - Wear lead aprons and thyroid shields when standing close to radiation source, during fluoroscopy, surgical c-arm procedures and portable exams
      - Record exposure values from radiation monitoring reports promptly

   f. Use lead markers (right and left) correctly and place them on the image **prior** to exposure.
   g. Minimize annotations of laterality (right and left) on all images after the image has been exposed.
   h. Perform exams following the guidelines of the Joint Review Committee on Education in Radiologic Technology (JRCERT):
      - Perform repeat exposures under direct supervision with the technologist in the room checking the image prior to exposure
      - Record repeat exposures on the student tally sheet and have the R.T. initial the exposure indicating direct supervision
   i. Have all images approved by a technologist before releasing the patient from the department and submitting images to the Radiologist for a reading
   j. Maintain patient safety in accordance with the patient safety policy in the (PPM)
   k. Maintain patient confidentiality standards and meet HIPAA requirements