

NORTH CENTRAL STATE COLLEGE

RADIOLOGICAL SCIENCES



POLICY AND PROCEDURE MANUAL

FOR CLINICAL EDUCATION

CLASS OF 2021-2023

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It is the policy of North Central State College not to discriminate on the basis of sex, race, age, creed, religion, national origin, disability status, veteran status or sexual orientation in its educational programs, activities, or employment practices. For full disclosure of North Central State College's Non-Discrimination Policy, grievance procedure and contact information please see the link below:

<https://ncstatecollege.edu/non-discrimination-notice/>

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Introduction to the Program/Program Policies

PROGRAM MISSION STATEMENT

The mission of the radiography program sponsored by North Central State College is to produce competent, radiologic technologists.

PROGRAM DESCRIPTION

The North Central State College curriculum consists of many general and technical courses, as well as clinical experience in cooperation with OhioHealth/Mansfield and OhioHealth Free Standing Emergency Department, University Hospitals Samaritan Medical Center, Avita Hospital Galion and Wooster Community Hospital. Successful completion of the 22-month college program earns an Associate of Applied Science Degree in Radiological Sciences.

The trained radiographer is able to take diagnostic radiographs that will aid the doctor in treating patients. The radiographer may be employed in a hospital, doctor's office, clinic, mobile unit, or a county, state, or federal institution. Some are employed in American industry.

A radiographer may pursue additional studies and educational training in other areas such as: Mammography, Nuclear Medicine Technology, Radiation Oncology, Ultrasound, Magnetic Resonant Imaging, Computed Tomography, and Vascular Interventional Studies, Education, Management and Sales.

The Radiological Sciences Program is accredited in cooperation with the Joint Review Committee on Education in Radiologic Technology (JRCERT). The JRCERT is recognized by the U.S. Department of Education as an accreditation agency and evaluates programs using standards endorsed by the American Registry of Radiologic Technologists (ARRT). Graduates may be eligible to apply for admission to the certification exam administered ARRT.

The program is developed according to the Joint Review Standards for an accredited Educational Program in Radiological Sciences. A copy of these Standards are included in this manual. (See Table of Contents.)

PROFESSIONAL ETHICS / ETHICS REVIEW

According to the American Registry of Radiologic Technologists (ARRT), candidates must be of good moral character. A student who has been convicted of a misdemeanor, felony or similar offense, including in a military court-martial, must undergo an Ethics Review by the American Registry of Radiologic Technologists (ARRT). The ARRT does permit an Ethics Review prior to graduation from an ARRT-recognized educational program. The student can find the specifics of this process by going to <https://www.arrt.org/pages/earn-arrt-credentials/initial-requirements/ethics/ethics-review-preapplication> .Questions may be directed to the Program Director.

THIS POLICY AND PROCEDURE MANUAL IS MEANT TO SUPPLEMENT, NOT CONTRADICT, THE APPROVED AND ADOPTED POLICIES, CODES, AND PROCEDURES OF NORTH CENTRAL STATE COLLEGE. IN THE EVENT A PROVISION OF THIS AGREEMENT CONTRADICTS OR CONFLICTS WITH COLLEGE POLICIES, CODES, OR PROCEDURES, THE COLLEGE'S POLICIES, CODES, AND PROCEDURES PREVAILS.

INTRODUCTION TO CRIMINAL BACKGROUND CHECK AND DRUG TEST SCREENING

Students entering the Radiological Sciences program are required to undergo a criminal background check (BCI&I and FBI) and a test for drug screening. The purpose of the background check and drug screening is to protect our patients, students, staff of North Central State College and our clinical educational affiliates. The cost of the initial background checks and drug screening is paid by the college through program lab fees. Any cost for any additional testing, including alcohol testing, is the responsibility of the student.

Criminal Background Check Policy

All students entering the Radiological Sciences program must have a criminal background check, before the beginning of Fall term. Program faculty will make arrangements through the College's Human Resource Department to perform the Ohio Bureau of Criminal Identification and Investigation (BCI&I) and the Federal Bureau of Investigation (FBI) checks. These will be performed at the college. The results of the background check will be forwarded to a College representative. The College has appointed a single representative (not the program director) to review and monitor student results and forward the results to the student.

According to the American Registry of Radiologic Technologists, candidates must be of good moral character. Generally, the conviction of either a felony or misdemeanor (see exceptions below) indicates a lack of good moral character for registry purposes. Any student convicted of a crime MAY be eligible for registration if the student has served his/her entire sentence including probation and parole, and have had his/her civil rights restored.

The ARRT policy concerning prior felony or misdemeanor convictions states: (in part)

"All offenses must be reported regardless of how long ago they were committed.

Exceptions are:

- *offenses committed while a juvenile and processed in the juvenile court system;*
- *traffic violations that did not involve drugs or alcohol;*
- *charges that were dismissed if there were no court conditions required for the dismissal*

All other misdemeanor or felony offenses must be reported, including convictions or charges resulting in a plea of guilty, plea of nolo contendere (no contest), withheld or deferred adjudication, suspended or stay of sentence, pre-trial diversion activity, or military court-martial."

The entire ARRT policy may be found at [Ethics Review Preapplication - ARRT](#)

Any student who has a prior conviction is strongly advised to complete the ARRT pre-application, prior to starting the program to determine registry eligibility. Any student who is convicted of a felony or a misdemeanor while in the program must disclose this to the program director, in writing, immediately following the conviction.

The results of the initial criminal background check must be maintained in the student's "Clinical Passport". A representative from the clinical site (supervisor, manager, director, etc.) has the right to review a student's clinical passport. Failure to provide the clinical passport, upon request by an authorized person, may result in the student's dismissal from the clinical site for that day and continue until the passport is provided to the requesting person. Failure to provide the clinical passport may result in dismissal from the program. In addition, any student with a known criminal background (see above) must schedule a meeting with the program director to discuss the student's responsibilities.

Drug Screening Policy

All students entering the Radiological Sciences program will have a drug screening test, usually during the summer before the beginning of Fall term. Program faculty will make arrangements for an independent agency, contracted by the College, to perform the test. This test will be performed at the college. The results of the test will be forwarded to the College representative. The College has appointed a single representative, the College Medical Review Officer, to review and monitor student results and forward the results to the student. If a positive finding after any testing is reported, the College Medical Review Officer will inform the program director of the positive finding. Any student who has a history of drug abuse or addiction must disclose this history, in writing, to the Program Director prior to the beginning of the program.

The College has a zero tolerance policy regarding the use of illegal drugs and the abuse of prescription drugs. The safety of all patients, students and staff members requires that anyone using illegal substances or abuse of prescription drugs be immediately dismissed from the program. The abuse of prescription drugs is such that the student is unable, due to the effects of the drug, to perform satisfactorily at the clinical site. The unsatisfactory performance may be indicated by a change in behavior, altered speech, impaired judgment, etc. If a student has a positive drug screen for a prescription drug, the student is required to submit the prescription to the College's Medical Review Officer within five days of the test. Failure to submit the requested prescription or documentation from the prescriber will result in a recommendation for immediate dismissal from the program. A test that comes back positive from the proper use of an appropriately prescribed medication may result in the postponement of clinical education. The student who tests positive for illegal substances or abuses prescription drugs or fails to provide appropriate documentation for prescription drug use will be advised to see a chemical assessment counselor. Following assessment, treatment and evaluation by the counselor, the student may request re-admission to the program. The student must submit documentation from a certified counselor and proof of negative drug screens during the next year in addition to following the program's readmission policy. If the student is re-admitted to the program, the student will be required to have periodic, unscheduled drug screens along with continued sessions with a counselor for the duration of the program. The cost of all drug tests, assessment, counseling, treatment and evaluation is the responsibility of the student.

The Program Director, program faculty or clinical preceptors have the right to have a student tested for substance use at any time while the student is enrolled in the program. The drug screen will be performed at a facility chosen by college faculty or clinical preceptor. If the student fails to comply with the request to be tested for substances, dismissal from the program will result. A positive result for an illegal substance will result in dismissal from the program. The student will be advised of the above stated policy if program re-admission in the future is desired. A positive result from a legally prescribed drug will require proper documentation.

The results of the initial drug screening, along with any supporting documentation, must be maintained in the student's "Clinical Passport". A representative from the clinical site (supervisor, manager, director, etc.) has the right to review a student's clinical passport. Failure to provide the clinical passport, upon request by an authorized person, may result in the student's dismissal from the clinical site for that day and continue until the passport is provided to the requesting person. Continued failure to provide the clinical passport may result in dismissal from the program.

The student who tests positive for illegal substances or abuses prescription drugs or fails to provide appropriate documentation for prescription drug use will be advised to see a chemical assessment counselor. Following assessment, treatment and evaluation by the counselor, the student may request re-admission to the program. The student must submit documentation from a certified counselor and proof of negative drug screens during the next year in addition to following the program's readmission policy. If the student is re-admitted to the program, the student will be required to have periodic, unscheduled drug screens along with continued sessions with a counselor for the duration of the program. The cost of all drug tests, assessment, counseling, treatment and evaluation is the responsibility of the student.

Note: A second positive drug test will result in dismissal from the program with no opportunity for readmission.

Alcohol Use/Abuse/Addiction

The College has a zero-tolerance policy regarding the use, possession, distribution or sale of alcohol at the school or at any clinical site. If a student is observed doing the above, immediate dismissal from the program will result. Any student who has a history of alcohol abuse or addiction must disclose this history, in writing, to the Program Director prior to the beginning of the program. In order to ensure the safety of all patients, any student who is suspected of reporting to clinical under the influence of alcohol (odor, impaired judgment, altered speech, change in behavior, etc.) will be informed by the clinical preceptor of the suspicion and required to leave clinical for that day. An Advising Form will be completed by the CP detailing the suspicion and forwarded to the Program Director. A meeting with the Program Director and/or Clinical Coordinator must be scheduled by the student. The student may not return to clinical education until the meeting has occurred.

A second suspicion will result in the student being sent for an alcohol test to be performed at a facility chosen by medical review officer. The student will not be permitted to drive until the results of the test are known. If the student fails to comply with the request to be tested for alcohol, dismissal from the program may result. The following outlines the possible results of the alcohol test by breathalyzer* and the resulting action:

If the test result indicates “negative” for alcohol, the student will be excused from clinical for the day. A meeting with the student and program faculty will be scheduled to determine an action plan. The clinical preceptor may also be present at this meeting. This meeting should be scheduled as soon as possible following the incident, but within 5 business days of the incident. The student may return to the clinical site on the next scheduled clinical day.

If the test result indicates “positive” for alcohol, a 15-minute post-confirmation test will be performed. If the post-confirmation result is still “positive”, it is considered the legal result. Professionalism is a major component to clinical education. The result from the alcohol test indicates the student has made poor choices in this regard, regardless of the level of the positive test. The student will be sent home (it may be necessary for the student to be driven home by another person) and may not return to clinical until he/she meets with program faculty and a college administrator. A meeting with the student, program faculty and the chair or dean will be scheduled to determine what further action should be taken. The meeting will be scheduled as soon as possible following the incident, but within 5 business days of the incident. The result of the meeting may include an Action Plan in which the student remains in the program or dismissal from the program. The Action Plan may include the requirement for the student to see a substance abuse counselor. If the student is dismissed from the program and wishes to be re-admitted in the future, counseling by a substance abuse counselor is required. Following assessment, treatment and evaluation by the counselor, the student may then request re-admission to the program. The student must submit documentation from a certified counselor and proof of negative alcohol tests during the next year in addition to following the program’s readmission policy.

If the student is re-admitted to the program, the student will be required to have periodic, unscheduled alcohol tests along with continued sessions with a counselor for the duration of the program. The cost of all alcohol tests, assessment, counseling, treatment and evaluation is the responsibility of the student.

Note: A second positive alcohol test will result in dismissal from the program with no opportunity for readmission.

**Depending on circumstances and the clinical site, an alternative laboratory test to the breathalyzer may be used for detection of alcohol.*

ARRT CODE OF ETHICS

The Code of Ethics shall serve as a guide by which Certificate Holders and Candidates may evaluate their professional conduct as it relates to patients, healthcare consumers, employers, colleagues, and other members of the healthcare team. The Code of Ethics is intended to assist Certificate Holders and Candidates in maintaining a high level of ethical conduct and in providing for the protection, safety, and comfort of patients. To view and read the ARRT Code of Ethics document for Radiographers go to:

https://www.arrt.org/docs/default-source/governing-documents/code-of-ethics.pdf?sfvrsn=71f304fc_14

Introduction to Radiography Practice Standards

Preface

A profession's practice standards serve as a guide for appropriate practice. The practice standards define the practice and establish general criteria to determine compliance. Practice standards are authoritative statements established by the profession for evaluating the quality of practice, service and education provided by individuals within the profession. Practice standards can be used by individual facilities to develop job descriptions and practice parameters. Those outside the profession can use the standards as an overview of the role and responsibilities of individuals within the profession. The medical imaging and radiation therapy professional and any individual who is legally authorized to perform medical imaging must be educationally prepared and clinically competent as a prerequisite to professional practice. The individual should, consistent with all applicable legal requirements and restrictions, exercise individual thought, judgment and discretion in the performance of the procedure. Federal and state statutes, regulations, accreditation standards and institutional policies could dictate practice parameters and may supersede these standards.

To view the most current Radiography Practice Standards document, go to:

https://www.asrt.org/docs/default-source/practice-standards/ps_rad.pdf?sfvrsn=13e176d0_24

Radiographer Scope of Practice

Overview

Radiographers are part of the interdisciplinary team that plays a critical role in the delivery of health services as new modalities emerge and the need for imaging procedures increases. A comprehensive procedure list for the radiographer is impractical because clinical activities vary by the practice needs and expertise of the radiographer. As radiographers gain more experience, knowledge and clinical competence, the clinical activities for the radiographer may evolve. State statute, regulation or lawful community custom may dictate practice parameters. Wherever there is a conflict between these standards and state or local statutes or regulations, the state or local statutes or regulations supersede these standards. A radiographer should, within the boundaries of all applicable legal requirements and restrictions, exercise individual thought, judgment and discretion in the performance of the procedure.

To view the entire Scope of Practice for Radiographers go here:

https://cdn.ymaws.com/www.scrqsa.org/resource/resmgr/Scope_of_Practice_Standards/Position_Statement_-_Radiolo.pdf

North Central State College
Radiological Sciences Assessment Plan

Providing individuals with the knowledge, skills and inspiration to succeed in their chosen path

College Vision

North Central State College is committed to being a leader in excellent, affordable higher education and a partner in achieving greater community prosperity and better quality of life

Program Mission

The mission of the radiography program sponsored by North Central State College is to produce competent radiologic technologists.

Program Assessment 2020-2021						
Goal 1: Students will demonstrate clinical competence						
Student Learning Outcome (SLO)	Measurement tool	Benchmark	Timeframe/Responsible Party	Results	Analysis	Action Plan
Students will produce diagnostic radiographs	Clinical Preceptor Final Evaluation Section 3; D, E, F (positioning)	Each student will score ≥ 10 points on a 12-point scale	Semester 2/RADS 1260 Clinical Preceptor			
	Clinical Preceptor Final Evaluation; Section 4; A and B (technique)	Each student will score ≥ 6 points on an 8-point scale	Semester 2/RADS 1260 Clinical Preceptor			
	Maintenance Evaluation Rubric (Portable Chest)	Each student will score ≥ 20 points on a 25-point scale	Semester 5/RADS 2520 Clinical preceptor			

Students will provide age-appropriate patient care	Patient Care Rubric Clinical Preceptor Evaluation Section 7; A, B, C (patient Care)	Each student will score ≥ 32 points on a 39-point scale Each student will score ≥ 9 points on a 10-point scale	Semester 2/RADS 1220 Clinical Preceptor Semester 5/RADS 2520 Clinical Preceptor			
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Goal 2: Students will demonstrate critical thinking and problem-solving skills						
SLO	Measurement tool	Benchmark	Timeframe/Responsible Party	Results	Analysis	Action Plan
Students will effectively evaluate radiographic images	Oral Image Analysis Rubric (extremity exam with 3 to 4 projections)	Each student will score ≥ 20 points on a 25-point scale	Semester 2/RADS1260 Lab Instructor			
	Image Evaluation Rubric (Adult Spine)	Each student will score ≥ 21 points on a 24-point scale	Semester 5/ RADS 2520 Clinical Preceptor			
Students will perform exams requiring adaptive positioning	Modified Multiple Exam Simulation Rubric	Each student will score ≥ 40 points on a 50-point scale	Semester 3/RADS 2360 Lab instructor			
	Multiple Exam Rubric	Each student will score ≥ 81 points on a 90-point scale	Semester 5/RADS 2520 Clinical Preceptor			

Goal 3: Students will communicate effectively in the clinical setting						
SLO	Measurement tool	Benchmark	Timeframe/Responsible Party	Results	Analysis	Action Plan
Students will communicate professionally with patients and staff	Clinical Preceptor Evaluation Section 7; A, B	Each student will score ≥ 4 points on a 6-point scale	Semester 2/RADS 1220 Clinical Preceptor			
	Clinical Preceptor Evaluation Section 7; A, B	Each student will score ≥ 5 points on a 6-point scale	Semester 5/RADS 2520 Clinical Preceptor			
Students will communicate effectively within a diverse culture of patients	Geriatric Competency Rubric (Patient Interaction Section)	Each student will score ≥ 13 points on a 16-point scale	Semester 2 or 3/RADS 1220 or 2321			
	Geriatric Competency Rubric (Patient Interaction Section)	Each student will score ≥ 15 points on a 16-point scale	Semester 5 /RADS 2520			

Program Effectiveness Measures					
Outcome:	Measurement Tool	Benchmark	Results	Analysis	Action Plan
The graduates pass the credentialing exam.	ARRT Examination Summary Report	85% of the graduates will pass the exam on the first attempt.			
Employer respondents indicate they would hire future graduates from the program.	Employer Survey	75% of the employers will respond "yes" to this question on the employer survey.			
Graduates who seek employment in the radiology field are employed within 12 months of graduation.	Graduate survey or "word of mouth" or social media.	75% of the graduates will respond "yes" to this question on the graduate survey, or through social media or word-of-mouth.			
Students who begin the program successfully complete the program.	Program Completion Rate	60% of the students who begin the program will complete the program.			

Program Effectiveness Measures					
Outcome:	Measurement Tool	Benchmark	Results	Analysis	Action Plan
Graduates indicate that they were adequately prepared as a competent radiographer.	Graduate Survey	≥75% of graduate respondents			
Employer respondents indicate that graduates were adequately prepared as a competent radiographer.	Employer Survey	≥75% of employer respondents.			

JRCERT ACCREDITATION STANDARDS

The Joint Review Committee on Education in Radiologic Technology (JRCERT) Standards for an Accredited Educational Program in Radiography are designed to promote academic excellence, patient safety, and quality healthcare.

The Radiological Sciences program voluntarily participates in the accreditation process designed by JRCERT. Successful maintenance of accreditation by the JRCERT assures that the program meets specific quality standards and continuously reviews its outcomes through assessment. The current Joint Review Committee on Education in Radiologic Technology Standards may be found on the JRCERT website in the following link:

https://www.jrcert.org/sites/jrcert2/uploads/documents/2021_Standards/2021_Standards_Radiography.pdf

REPORTING NON-COMPLIANCE OF STANDARDS AND/OR COMPLAINTS

All allegations of non-compliance with the JRCERT Standards should be made to the Program Director in writing. A written response will be made within 10 working days. If the resolution to the problem is unsatisfactory, complaints may be made to:

The Joint Review Committee on Education in Radiologic Technology
 20 North Wacker Drive
 Suite 900
 Chicago, IL 60606-2901

Phone: 312-704-5300

PROGRAM FACULTY JOB DESCRIPTIONS

So that each student understands the role of the Program Director, the Clinical Coordinator, and the Clinical Preceptors, the following job descriptions have been enclosed in this manual for your review. In addition, pages entitled “ARRT Code of Ethics,” “Radiography Practice Standards,” and “Patient's Bill of Rights” must be read. These documents should be reviewed and kept in mind when working in the health care field.

Note: the actual job descriptions for the noted positions are maintained by the College’s Office of Human Resources; therefore, the following job descriptions are subject to change.

PROGRAM DIRECTOR

POSITION DESCRIPTION:

The program director reports to the appropriate Academic Chair and performs regular faculty duties as well as those listed below. Posts on the faculty schedule and maintains eight hours per week that are devoted to administrative activities within the scope of this job description.

DUTIES & RESPONSIBILITIES:

Specific Responsibilities include, but are not limited to:

1. Responsible for curriculum development and maintenance related to his/her area including working with the Academic Department Chair, course coordinators, and faculty to review the entire curriculum as necessary, eliciting advisory committee input for curriculum review, and annually recommending any needed curriculum and program changes.
2. Responsible for recruiting, orienting, and evaluating adjunct faculty in consultation with the Academic Department Chair.
3. Responsible for working with faculty to develop and update course syllabi and competency-based evaluations.
4. Schedules, plans, and attends program advisory committee meetings (at least one per year required).
5. Coordinates and recommends to the Academic Department Chair the selection of textbooks and the ordering of faculty desk copies in cooperation with appropriate course coordinators.
6. Responsible for researching and recommending to the Academic Department Chair equipment and supplies to be purchased for the program.
7. Responsible for overseeing the maintenance of the equipment and facilities of the program.
8. Responsible for coordinating and recommending to the Academic Department Chair/Course Coordinator the ordering of books and materials for the library.
9. Responsible for recommending to the Academic Department Chair proposed lab fees in cooperation with course coordinators.
10. Maintains contact with local employers through regular visitations and dialogue for the purpose of enhancing placement, recruitment, and curriculum development.
11. Provides leadership for student advising in the program.
12. Provides input to the Academic Department Chair in the evaluation of all program faculty in matters related to the curriculum.
13. Assists the Academic Department Chair in the development of quarterly master schedules for the program.
14. Assists the Academic Department Chair in the departmental goals and the evaluation of their attainment.
15. Assists the Academic Department Chair in the coordination of room utilization and faculty schedules.

16. Assists the Academic Department Chair in preparing and administering the annual budget for the program.
17. Assists in the recruitment of students for the program.

ACADEMIC CLINICAL COORDINATOR

POSITION DESCRIPTION:

Coordinating educational activities in the clinical setting to achieve equality among all clinical sites according to program standards.

DUTIES AND RESPONSIBILITIES:

1. As an academic clinical coordinator, works with the program director to ensure that clinical practicum experiences are implemented and evaluated for effectiveness according to the program's accreditation standards. The academic clinical coordinator is responsible for NCSC's program compliance with clinical practicum requirements as outlined within program accreditation standards:
 - a. Correlates clinical education with didactic education
 - b. Evaluates students
 - c. Participates in didactic and/or clinical instruction
 - d. Supports the program director to help assure effective program operation
 - e. Coordinates clinical education and evaluates its effectiveness
 - f. Participates in the assessment process
 - g. Cooperates with the program director in periodic review and revision of clinical course materials
 - h. Maintains current knowledge of the discipline and educational methodologies through continuing professional development
 - i. Maintains current knowledge of program policies, procedures and student progress
2. Maintain open communication with program director.
3. Be knowledgeable of program goals, clinical objectives, and clinical evaluation system.
4. Make site visits each term.
5. Will assign clinical supervisors and clinical preceptors as necessary to meet student needs.
6. Measure student progress by evaluating their performance of radiographic procedures.
7. Coordinate and encourage valid maintenance of student clinical records.
8. Implements and maintains rotation schedules to achieve course objectives.
9. Establish a consistent method of image evaluation and scheduled sessions of image critique on a regular basis.
10. Maintains student records on site visits on a regular basis.
11. Orients and educates clinical preceptors on policies and procedures to meet student objectives.
12. Review clinical manual and handbook of policies and competency-based performance objectives on an annual basis.
13. Establish clinical site in-services in coordination with clinical preceptors once per year
14. Develops new and maintains current clinical agreements that meet the needs of the students.
15. Develop and maintain current student assessment methods for clinical sites.
16. Update clinical portion of policies and procedures manual.
17. Plan, schedule and facilitate quarterly clinical site supervisors meeting.
18. Perform other designated duties as needed

CLINICAL PRECEPTOR

POSITION DESCRIPTION: Provides education, evaluation and supervision for the radiography student in the clinical setting, consistent with the established standard of medical care in radiological services.

DUTIES & RESPONSIBILITIES:

1. Becomes knowledgeable of program goals, clinical objectives, and clinical evaluation systems.
2. Provides students with appropriate and adequate clinical supervision. (Direct and indirect supervision)
3. Provides students with clinical-site-specific instruction.
4. Performs clinical evaluations for students. (i.e., competencies, CI evaluations, tech evaluations and observations).
5. Maintains student logs and monitors students' clinical progress in relationship to required objectives and competencies
6. Approves student clock time and time exceptions
7. Implements and monitors academic/behavioral action plans as they relate to clinical education
8. Applies assessment tool documents to facilitate program assessment
9. Demonstrate a positive, professional attitude toward students, the teaching process, and the program.
10. Participates in continuing education to improve and maintain competence in evaluation skills.
11. Meets regularly with program officials to communicate student progress, strengths, and weaknesses.
12. Assists in maintaining all student clinical records and maintains student confidentiality in accordance with college policies.
13. Participates in meetings and serves on committees consistent with the goals of the educational program.
14. Assists students in the achievement of their personal goals.
15. Checks radiation reports routinely.
16. Reviews radiographic images with students.
17. Demonstrates strong leadership skills and problem-solving techniques
18. Acts as a positive role model for students

The Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. Your rights under FERPA are:

1. You have the right to inspect and review your educational records within 45 days of the day the College receives a request for access.
2. You have the right to request the amendment of any part of your educational record that you believe is inaccurate or misleading.
3. You have the right to consent to disclosure of personally identifiable information contained in your education records, except to the extent that FERPA authorizes disclosure without consent.
4. You have the right to file a complaint with the U.S. Department of Education concerning alleged failures by North Central State College to comply with the requirements of FERPA.

The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education

400 Maryland Avenue, SW
Washington, DC 20202-4605

Please contact the Registrar at 419-755-4824 or see [3357:13-17-50 Family Educational Rights and Privacy Act \(FERPA\) policy](#) for further information.

POLICY ON COLLEGE STUDENT SERVICES

The Radiological Sciences program works closely with the Student Success Center to recommend and provide resources to help students be successful in the program. Program faculty can and will recommend or mandate these services when the service would be beneficial for student success. Failure of students to attend a mandated service may result in program dismissal. Students may access the Student Success Center very easily from the college website and are encouraged to seek out these services on their own as well to assure success.

Student Success Center

<http://catalog.ncstatecollege.edu/content.php?catoid=5&navoid=181>

The four most common student services that the program will use is Disability Services, Personal Counseling, TRIO and Tutoring,

Disability Services

The office of Disability Services is available on campus for students who have special needs. If a student requires reasonable accommodations because of a physical, mental or learning disability, it is the student's responsibility to contact the course instructor at the start of each term. It is also the student's responsibility to use any or all accommodations that will help them be successful in the course. If a student fails to use a recommended accommodation and the student is unsuccessful in the course, the instructor is not held responsible. <https://ncstatecollege.edu/student-services/disability-services/>

Personal Counseling

Free counseling services are provided by New Directions and are available to all currently enrolled students of NCSC free of charge. New Directions provides evaluation, brief counseling and referral services for a variety of problems or concerns. This service is private and confidential. Students may access this service by following the link below. College faculty may recommend or mandate this service for special situations in which they believe the service will help students perform better in clinical or in didactic courses. <https://ncstatecollege.edu/student-services/personal-counseling/>

TRIO

The TRIO Student Support Services program provides and coordinates a variety of educational support services for students who are first generation, low-income and/or students with disabilities. The purpose of the program is to increase college retention, graduation and transfer rates for eligible members. <https://ncstatecollege.edu/student-services/trio/>

Tutoring

This service is highly recommended by faculty to assure student success. A trend of low-test grades or poor performance in a didactic class is the triggering event to lead faculty to recommend or mandate tutoring. It is the student's responsibility to seek out tutoring, either from the tutors or from course faculty when they are

having difficulty with content. Currently the Radiology Program uses dedicated radiology tutors. If the student does not attend tutoring, the course instructor can and may mandate it.

<https://ncstatecollege.edu/student-services/tutoring/>

COLLEGE POLICIES

Students of North Central State College have a duty to locate and familiarize themselves with the current college policies. All college policies may be found on the college website in the College Catalog and Student Handbook section. The following web addresses have been referenced for convenience:

College Catalog

<http://catalog.ncstatecollege.edu/index.php?catoid=5>

Academic Policies and Procedure

<http://catalog.ncstatecollege.edu/content.php?catoid=5&navoid=182>

Code of Student Conduct

<http://catalog.ncstatecollege.edu/content.php?catoid=5&navoid=185>

Campus Policies and Procedures

<http://catalog.ncstatecollege.edu/content.php?catoid=5&navoid=186>

Firearm Notice

<http://catalog.ncstatecollege.edu/content.php?catoid=5&navoid=186&hl=firearm&returnto=search#firearms>

PROGRAM CURRICULUM

The Curriculum Worksheet informs the student what courses are to be taken each term and the number of credit hours per course. The student is responsible for ensuring that any non-RADS courses still needed is taken during the term outlined on the Curriculum Worksheet. Failure to do this may result in a scheduling conflict between the non-RADS course and a RADS course. In addition, failure to complete all non RADS courses may result in a delay of graduation. All RADS courses must be taken in the sequence provided on the curriculum worksheet.

The most current curriculum worksheet may be found on:

<https://ncstatecollege.edu/documents/Academics/AcadSvcs/CurriculumWkshts/RADS.pdf>

If the student is unsure of any curriculum information, he/she is encouraged to ask a faculty member as soon as possible.

NOTIFICATION TO ALL STUDENTS

In accordance with Regulation 34 CFR 668.43 (a) (5) (v) from the U.S. Department of Education the following is a list of all states/jurisdictions where North Central State College has not made a determination of whether the curriculum meets educational requirements:

Alabama	Louisiana	Oklahoma
Alaska	Maine	Oregon
Arizona	Maryland	Pennsylvania
Arkansas	Massachusetts	Rhode Island
California	Michigan	South Carolina
Colorado	Minnesota	South Dakota
Connecticut	Mississippi	Tennessee
Delaware	Missouri	Texas
Florida	Montana	Utah
Georgia	Nebraska	Vermont
Hawaii	Nevada	Virginia
Idaho	New Hampshire	Washington
Illinois	New Jersey	West Virginia
Indiana	New Mexico	Wisconsin
Iowa	New York	Wyoming
Kansas	North Carolina	
Kentucky	North Dakota	

As a student in ***the Radiological Sciences Program*** of North Central State College, I have been notified of Regulation 34 CFR 668.43 (a) (5) (v) from the U.S. Department of Education.

Signature

Date

** note: acknowledgement will be signed electronically on Trajecsys

RADIOLOGICAL SCIENCES PROGRAM COMPLETION POLICY

1. Upon entering the Radiological Sciences Program, the student will have four years to complete the entire sequence of radiologic courses and take the registry exam.
2. Students who are dismissed or withdraw from the program and return to during the second through third semesters will have four years to complete the program.
3. Students who are dismissed or withdraw from the program and return m during the fourth semester or beyond will have three years to complete the program.
4. RADS courses that are older than five years will not meet program or transfer credit requirements.
5. When a student does not register for a clinical radiology course, it is considered to be equivalent to a withdrawal from the Radiological Sciences Program.

Admission Policy for the Returning Student

A returning student is recognized as a student who would like to return to the program following a withdraw or unsuccessful grade in a radiology course. A student may only re-enter the Radiological Sciences one time.

General Requirements

The student must:

1. Have a post-secondary GPA of 2.5 to re-enter the program. It is the student's responsibility to assure this GPA before program entrance.
2. Meet curriculum and program admission requirements effective at the time of re-admission.
3. Submit a Letter of Intent to the Program Director indicating his/her desire to re-enter the program and stating what has been done to make the changes necessary to provide the best opportunity for success in the program. This letter must be received by the Program Director at **least three (3) months before** the student wishes to re-enter the program. After the Program Director receives the letter, a meeting will be scheduled between the program faculty and the student.
4. Successfully demonstrate retention of knowledge by earning a 77% (C+) or higher on written examinations for all RADS courses successfully completed. The student will have one chance to take and pass written tests. The number of tests and testing schedule will be determined by the faculty.
5. Successfully demonstrate retention of clinical skills by earning 85% or higher on lab skills. The number of skills test and testing schedule will be determined by the faculty.

A. Requirements for the student who was unsuccessful/did not complete Fall I term.

The student must:

1. Meet the general requirements to re-enter the program as stated above.
2. Submit the Letter of Intent to the Program Director by the **first week of Spring semester.** Submission of the letter by this time alerts the Program Director to the return student's intentions prior to accepting new students into the radiology program in the Fall semester.
3. Demonstrate retention of knowledge in previously passed RAD courses by completing a written exam with a score of 77% (C+) or higher **by the last day of March.** Demonstration of successful retention of knowledge by this time assures placement into a clinical site prior to the new class of students receiving their acceptance letters.
4. Repeat the clinical course RADS 1120 in Fall 1 semester for grade replacement. (P or NP)
5. Repeat any courses that were not previously passed successfully for grade replacement.
6. Meet current academic curriculum program requirements. This includes current required immunization, s, health physical requirements, uniform changes, CPR, etc.
7. Attend program orientation and continue on as a member of that class with the same responsibilities and requirements as any other student.

B. Requirements for the student who was unsuccessful (withdrew or failed) Spring I term or after.

The student must:

1. Meet the general requirements to re-enter the program as stated above.
2. Send a letter to the Program Director indicating his/her desire to re-enter the program. This letter must be received by the Program Director **three (3) months before** the student is required to re-enter the program.
3. Receive written confirmation from the Program Director that a clinical space will be available at the time the student intends on returning to the program. If no clinical space will be available, the only choice the student would have would be to re-apply to the program and begin the program again.
4. Demonstrate retention of knowledge in previously passed RAD courses by completing a written exam with a score of 77% (C+) or higher. Testing schedules and number of tests will be determined by faculty.
5. Demonstrate retention of clinical skills by earning 85% or higher on lab skills. The number of skills test and testing schedule will be determined by the faculty.
6. Repeat any courses that were not previously passed successfully for grade replacement.
7. Repeat the required clinical course in the semester of re-entry for grade replacement (P) (NP)

8. Meet current academic curriculum program requirements. This includes current required immunizations, health physical requirements, uniform changes, CPR, etc.

NOTE: The faculty reserve the right to determine clinical placement for the returning student. Placement is determined by site availability and clinical needs of the student.

Admission Policy for a Transfer Student

The following procedures apply to students who wish to transfer into the Radiology program at North Central State College from a Radiology Program at a different college. (In this situation the student has satisfactorily completed at least one or more Radiological Science courses at another institution with a 77% or higher and desires to enter the program at NCSC at a point beyond the beginning semester of the program.)

1. At least 8 weeks prior to entering the program, the student will contact the Program Director and inform them that they would like to be reviewed for entrance to the Radiology Program as a transfer student. This contact may be in the form of an e-mail or telephone call. **The Program Director will determine if a clinical placement will be available at the time the student plans to enter the program.** If so, a meeting between the faculty and student will be arranged.
2. The student must begin the admission procedure of North Central State College.
3. The student will have an official transcript sent to the Registrar's office to determine transfer credit. A 2.5 GPA or higher is required to enter the Radiological Science Program at NCSC.
4. The student must enroll for a Radiological Science Information session. Call the Health Sciences Administrative Office at 419-755-4805 to set up an appointment. Entrance into the Radiological Sciences Program requires participation in an information session. An application for the program is presented at the information session and a transfer student is required to complete the application. Clinical observation hours are not required if a clinical course has been completed successfully at a different institution or proof of observation hours for another program can be presented.
5. The student will email a syllabus and lab course manual for any Radiological Science course successfully taken (C+ or higher) at another college to the Program Director. Program faculty and the Assistant Dean will review the syllabi and lab course manual to determine if the content in the transfer courses is comparable to the content of the Radiological Science Courses at North Central State College.
6. If it is possible to align the courses, the student will take an exam for the courses in which they could advance through. A course syllabus, class calendar and study guide will be provided to the student for the test. If the student is successful in taking the test (77% or higher) the student will be given transfer credit for that course (pending skill testing- see below). If the student is unsuccessful with the exam, the student would be required to enter the program and take the courses in which they did not successfully pass the test.
7. The student will be required to complete a skill set in the college lab. The skill set will involve radiographic procedures and patient care or imaging concepts related to the courses the student will potentially advance through. The student must successfully pass all of the skills using college rubrics to receive transfer credit for the course.
8. If a transfer student is admitted into the program a clinical site will be assigned based on availability. If a clinical site is not available, the student will not be able to enter the program at that time. The student would then enter at the beginning of the program with the next class.

9. A Health Form from NCSC with current immunizations, screenings and CPR (health care provider) must be completed at the expense of the student. The completed exam forms must be submitted prior to the first day of the term. Failure to follow through on this will result in denial of entrance to the program.
10. A copy of a current background check and drug screen must be made available to the Assistant Dean prior to starting the program.

TUITION/FEES

The most current information regarding tuition and fees at NC State College may be found here:

<https://ncstatecollege.edu/about/tuition-and-fees/>

In addition to tuition, Radiology courses at NC State also require Lab Fees, Contact Hour Fees and Liability Insurance. To view a list of fees based on course visit here and search RADS courses.

<https://ncstatecollege.edu/about/tuition-and-fees/fees-table/>

Title IV Financial Aid

Monies for education loaned or granted by the Federal government, e.g. Perkins loans, Stafford loans, PLUS loans, Pell grants, Supplemental Educational Opportunity grants and work-study programs. Programs participating in Title IV financial aid must: maintain financial documents including audit and budget processes confirming appropriate allocation and use of financial resources; have a monitoring process for student loan default rates; have an appropriate accounting system providing documentation for management of Title IV financial aid and expenditures; inform students of responsibility for timely repayment of Title IV financial aid. For questions contact the Financial Aid office.

<https://ncstatecollege.edu/admissions-and-aid/financial-aid/>

Program Grading Requirements

The following grading scale is used to determine grades:

100-93	A	73-76	C
90-92	A-	70-72	C-
87-89	B+	67-69	D+
83-86	B	63-66	D
80-82	B-	60-62	D-
77-79	C+	59 and below	F

Radiological Sciences students must have a 2.5 grade point average before entering the program in the first semester and must maintain a 2.0 grade point average to remain in the program. Radiological Sciences students must receive a minimum course grade of 77% or higher in all Health Sciences Program Curriculum Worksheet courses in order to meet prerequisite and graduation requirements. Students who do not receive a 77% in Radiological Science courses will be academically dismissed. Clinical courses are graded as Pass or No Pass (P/NP). The student must earn 85% or higher in clinical courses in order to remain in the program.

Hybrid Course Delivery

Currently Radiological Sciences didactic courses are being delivered in the hybrid format. Lectures are held virtually and labs meet on campus. The college uses Zoom and Canvas for the delivery of instruction. In order to be successful in the courses, students must have access to computers with video and audio and internet connections. It is the responsibility of the student to alert faculty if they do not have the required equipment for the courses and faculty will connect students with the appropriate student services.

Policy on Plagiarism and Cheating

If a student is caught cheating (definitive evidence) on a test, quiz or any other college assessment, the student will be given a zero (0) on the assignment. Depending on the occasion, disciplinary action may result in dismissal from the program. See the Supplemental Course Syllabus for further details.

Plagiarism is defined as the process of taking someone else's ideas and passing them off as your own. Plagiarism has many different forms in a college course. Examples may include copying other's homework, using other's ideas in research papers and essays and other related examples. Students involved in plagiarism will be given a zero (0) on the assignment. In cases where copying of homework or assignments is evident, both students are liable. Depending on the occasion, disciplinary action may result in dismissal from the program. See the Supplemental Course Syllabus for further details.

Academic/Behavioral Advising Policy

The purpose of academic and/or behavioral advising is to facilitate opportunities for the student to become successful in the radiology program. The following are general guidelines which may initiate advising:

1. A student who demonstrates a trend of low scores on graded material
 2. A student who has multiple absences in one course
 3. A student who is consistently late or leaves a class early
 4. A student who has three or more assignments not completed
 5. A student who submits three or more assignments late
 6. A student who misses two or more labs
 7. Any student who the faculty member feels would benefit from the advising
 8. Any student who violates written policy in the RADS policy and procedure manual, course syllabi, clinical affiliate policies, College Code of Student Conduct or College Catalog
- <http://catalog.ncstatecollege.edu/content.php?catoid=10&navoid=504>
(This is not a complete list of guidelines)

Academic Advising: A meeting will occur between the instructor/instructors and student. An advising form will be completed documenting the results of the meeting. An action plan will be created stating goals for improvement as well as strategies recommended by the instructor for success. The student will have a time frame to complete the required strategies and demonstrate improvement. If the student does not demonstrate improvement a possible unsuccessful grade (below 77%) will be earned in the course and the student may be academically dismissed.

Behavioral Advising: A meeting will occur between the instructor/instructors and student. An advising form will be completed documenting the results of the meeting. An action plan will be created stating goals for improvement as well as strategies recommended by the instructor for success. The student will have a time frame to complete the required strategies and demonstrate improvement. The student may enter the disciplinary sequence depending on the behavior and dismissal from the program may occur.

RADIOLOGICAL SCIENCES
ADVISING FORM (Orange)

STUDENT _____ DATE _____

State situation which warrants advising, including corrective action:

STUDENT STATEMENT:

Instructor Signature

Date

Student Signature

Date

ACADEMIC/BEHAVIORAL ACTION PLAN
RADIOLOGICAL SCIENCES

STUDENT NAME _____

COURSE _____ DATE _____

Goals	Supporting Activities	Required Deadline	Verification

Comments:

Student Signature _____ Date _____

Faculty Signature _____

DISCIPLINARY POLICY

Students who violate any written policy of the college, course syllabi, clinical affiliate or radiological sciences program may be subject to disciplinary measures. Generally, these actions consist of the following steps, however, if the situation is severe and warrants it, and alteration of these steps may occur:

1. A verbal advisement (written on Advising Form)
2. A written reprimand
3. A written action plan
4. Probation
5. Dismissal

Depending upon the severity of the offense, and with the support of the departmental faculty, assistant dean or divisional dean, the student may be immediately subject to probation or even dismissal.

Verbal advisement – the student will be alerted to the issue by program faculty/clinical preceptor and an advising form will document the advisement

Written reprimand – a meeting will occur between faculty/clinical preceptor and the results of the meeting will be documented on an advising form. An action plan may be completed at this time depending on the cause and severity.

Action Plan- an action plan may be completed by any faculty/clinical preceptor to set goals and plan supportive activities to help the student succeed in the program. Deadlines are assigned for completion and the work must be verified by program faculty. Generally, if the student does not follow the plan and document improvement the student may be placed on probation or dismissed from the program. Many times, students are issued an action plan and put on probation at the same time in which the student must demonstrate improvement or be dismissed from the program.

Probation- is a period of time in which the other steps in the disciplinary policy have been exhausted and further violations of the probationary cause may result in a NP or dismissal from the program. An advising form will be used to document probation. The student will have an opportunity to meet with faculty to discuss conditions and concerns of the probation. If a student is on probation for any reason for more than 2 semesters (does not have to be consecutive semesters), the student may be dismissed from the program.

If a student is dismissed, fails or withdraws from the program, there may be circumstances present that will prevent the student from future admittance into the program. These cases will be reviewed by the program faculty and the Assistant Dean and Dean of Health Sciences

WITHDRAWAL:

The radiological sciences program is a lock-step program. This means that the didactic courses and clinical courses must be taken together. Any student who is unsuccessful or decides to withdraw from a clinical course or didactic course must also withdraw from the program.

Professional Organizations

The Ohio Society of Radiologic Technology (OSRT) sponsors an annual meeting each year. Second year students are expected to attend the annual meeting. This is viewed as a critical component of the educational process.

The student may participate in Student Quiz Bowl Competition, Essay Contest, and Exhibit Competition during the annual meeting. The guidelines for attending this meeting are as follows:

A. Composition of Quiz Bowl Team:

Members will be from the senior class. The quiz bowl advisor will designate which students shall be team members. Team members' selections will be based on such factors as grade point average, verbal communication skills, ability to react quickly, and in some part on the faculty's subjective judgment.

B. Meeting Attendance:

Specific requirements will be given to each student at the beginning of Spring II term: OSRT Annual Meeting (April). Student must attend a predetermined number of sessions for this meeting. Quiz bowl playoffs must be attended by anyone going to the meeting. Students must write a short summary for each meeting attended. These summaries will be given to a program faculty member as assigned.

C. OSRT Membership:

It is necessary that students be members of the OSRT to participate at the convention. The fee for membership is *\$30.00* and is effective for the entire program. The cost of membership is included in lab fees and is subject to change in accordance with OSRT membership due changes.

D. Essay Contest - rules and requirements for the essay contest may be found at:

<https://www.osrt.org/annual-meeting/competitions>

E. Exhibit Competition - rules and requirements for the exhibit competition can be found at

<https://www.osrt.org/annual-meeting/competitions>

F. Financing:

Methods of obtaining financing for attendance at this meeting may be attained by class dues, and other fund raisers. Money from the class treasury is for students only. No other person is permitted to stay in a hotel room that is being paid for by class funds. This includes the annual educational meeting and any other function financed by class funds.

NOTE: Any student electing not to attend the annual OSRT meeting will be required to go to clinical on each meeting day and write a paper per faculty direction.

Policy for Obtaining a Limited License

General X-ray Machine Operator

Students enrolled in an accredited program are eligible to take a limited license test administered by the Ohio Department of Health. Successful completion of this test allows the student to receive a limited license and obtain employment as a General X-ray Machine Operator (GXMO). In the Radiological Sciences program at North Central State College, students take Radiological Procedures classes during all five terms of the program with the most common procedures taught in semesters 1-3. For this reason, and to the extent permitted by law, a student in our program is not permitted to take the limited license test to become a GXMO until the student has successfully completed the first three semesters of the program.

Becoming a GXMO involves obtaining the signature of the Program Director. This signature will not be given until the faculty member discusses the student's clinical skills with the appropriate clinical preceptor. In some cases, a student will not be permitted to obtain a GXMO license until specified clinical objectives have been met. Any student who is interested in becoming a GXMO should discuss the procedure with a faculty member at the end of Spring I term.

A limited license is an OPTION available to the Radiological Sciences student, but is not mandatory for successful completion of the program. Neither the program nor the clinical sites have any obligation to provide employment to any student at any time.

Policy for Clinical Placement

Students are assigned to a clinical facility based on the number of points that was earned for entrance in the Radiological Sciences program. In cases of tied points, the date of application will be used. Students will list, in order of desired placement, their choices of clinical facilities. The clinical coordinator will place the students into their desired clinical site starting with their first choice and proceeding to their last choice based on spots available at the clinical site.

All clinical placement is at the discretion of program faculty. We are not able to adjust clinical site placement for work or personal schedules. Students must have reliable transportation to clinical education. Due to the amount of onboarding required at each of the clinical facilities, students will remain at the assigned clinical site for the duration of the program.

INTRODUCTION TO CLINICAL EDUCATION\CLINICAL POLICIES

Clinical education for the Radiological Sciences program is patterned after a competency-based model. According to this model, the student must demonstrate and retain competent behaviors in basic areas of the field before progressing to more complex tasks. During clinical education, students will be applying concepts and principles that are presented in didactic classes and labs. In order to apply these principles correctly, students must work closely with both the clinical preceptors and the staff technologists at the clinical setting. During the clinical experiences, students will be expected to perform positioning on patients in strict accordance with the textbook guidelines.

While at the clinical site, students must:

- **demonstrate the ability to perform all assigned exams with a competency score of 85% or above.**
- **complete the required objectives**
- **adhere to all clinical policies**
- **complete the required clinical hours**

In addition, the purpose of clinical education is to provide the student with the opportunity to develop a positive work ethic. This will include the student taking responsibility for turning in completed paperwork documenting clinical experiences, maintaining attendance without tardiness, and following program and departmental policies.

Students must meet all semester objectives to progress. Objectives for individual semesters are included in this the document section of Trajecsys. If a student does not meet the objectives for the semester including the minimal clinical hours objective, the student may receive an incomplete (or non-pass) for that semester's clinical education grade. Students having difficulty in meeting any of the semester's objectives should be communicating with the clinical preceptor and program faculty. Communication should involve a written plan by the student to meet those objectives. The college faculty and clinical preceptor will meet with the student and approve the plan or make corrections to the plan. A copy of this plan will be forwarded to the clinical coordinator.

Normally, clinical education will be completed 20 months from the beginning of the first semester of the program. The number of clinical hours stated in the policy and procedure manual is the minimum number required. Students may require more clinical time to meet behavioral objectives of the program, which could mean taking the registry at a later date.

In order to provide an unbiased grading process, students will not be placed in radiology departments in which they already are employed or where friends and relatives work. The program faculty reserve all rights in clinical placement assignments.

Clinical assignments are made based on the student's academic points used for program acceptance. Students will provide a list of clinical sites in order of preference (OhioHealth, Avita, Wooster, and UH Samaritan of Ashland). Then students will be ranked and placed into the clinical sites in order of highest points to lowest points. The radiology program has complete discretion over the placement of students in clinical. Once placed into the clinical site, the student will remain there for the duration of their program. Due to the vast amount of technology and training that a student requires at their clinical site, students will remain at their assigned site. The program will not make exceptions for work schedules, distance from home, or any other circumstances.

TOBACCO USE: All clinical sites are tobacco-free facilities. Students are not permitted to use any tobacco products while on hospital property.

EMPLOYMENT: The clinical affiliates cooperate with North Central State College in providing the best possible education for radiology students. The hospitals have no obligation to the student concerning employment during enrollment as a student or after graduation, nor does the college get involved in this arrangement.

THE PATIENT'S BILL OF RIGHTS (American Hospital Association)

Introduction

Effective health care requires collaboration between patients and physicians and other health care professionals. Open and honest communication, respect for personal and professional values, and sensitivity to differences are integral to optimal patient care. As the setting for the provision of health services, hospitals must provide a foundation for understanding and respecting the rights and responsibilities of patients, their families, physicians, and other caregivers. Hospitals must ensure a health care ethic that respects the role of patients in decision making about treatment choices and other aspects of their care. Hospitals must be sensitive to cultural, racial, linguistic, religious, age, gender, and other differences as well as the needs of persons with disabilities.

The American Hospital Association presents A Patient's Bill of Rights with the expectation that it will contribute to more effective patient care and be supported by the hospital on behalf of the institution, its medical staff, employees, and patients. The American Hospital Association encourages health care institutions to tailor this bill of rights to their patient community by translating and/or simplifying the language of this bill of rights as may be necessary to ensure that patients and their families understand their rights and responsibility.

To view the entire list of patient's rights according to the American Hospital Association go here:

<https://www.americanpatient.org/aha-patients-bill-of-rights/>

HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT

HIPAA

Federal legislation was passed in 1996 to improve the efficiency of the health care system by mandating confidentiality of health information. Specifically, this law governs the access and usage of patient-identifiable health information. Students will have reasonable access to patient health information during clinical education, therefore it is important that students become knowledgeable about the Health Insurance Portability and Accountability Act (HIPAA) and practice patient confidentiality.

As part of the educational process, students will be asked to provide, from clinical education, radiographic images, case studies, and health information from diagnostic radiology reports. Images (CD or film format) must have all patient identifiers (patient name, date of birth, age, etc.) removed before leaving the clinical site.

CD images are to be made anonymously. Diagnostic radiology reports are not to be removed from the clinical site. Information from the reports must be written out by the student without patient identifiers.

Each clinical setting is required to establish specific policies and procedures to safeguard the confidentiality of patient health information. In addition to the radiology program rules regarding patient confidentiality, students are made aware of the clinical site's policies and procedures through orientation and are expected to abide by all hospital mandates regarding HIPAA.

Failure of students to abide by HIPAA mandates may result in reprimand, probation or program dismissal, depending on the severity of the situation.

PROGRAM FACULTY/CLINICAL PRECEPTORS AND CLINICAL SITES

Medical Director: Shanathan Tumu, D.O.

Program Director: Dorie A. Ford, M.Ed., R.T. (R) (M)

Clinical Coordinator: Andrea Johnston, BSMI R.T. (R) (CT)

Clinical Education Settings:

Clinical Education Hours:

- | | |
|---|---|
| 1. Ohio Health/Mansfield Hospital
335 Glessner Avenue
Mansfield, OH 44903
Phone: (419) 526-8620
Clinical Preceptor Office: 419-526-8862
Clinical Preceptor: Heidi Chambers, BSRT, R.T., (R)
Aimee Cooper, R.T., (R) | 7:30 AM - 3:00 PM
3:00 PM – 10:30 PM |
| 2. OhioHealth Free Standing Emergency Care
1365 North Lexington Springmill Road
Mansfield, OH 44906
Phone: 419-520-3000
Clinical Preceptor: Kevin Linstedt, R.T. (R), (MR) | 7:30 AM – 3:00 PM |
| 3. Avita Health System/Galion Hospital
Portland Way South
Galion, OH 44833
Phone: 1-419-468-4841
Clinical Preceptors: Kelly Wisner, R.T., (R), (CT) (M) (MR)
Tiffany Davie, R.T. (R) | 7:30 AM - 3:00 PM
3:00 PM – 10:30 PM |
| 4. University Hospital Samaritan Medical Center
1025 Center Street
Ashland, Ohio 44805
(419) 289-0491 Ext. 3145
Clinical Preceptor: Tonya Drum, R.T., (R) | 7:30 AM - 3:00 PM
3:00 PM – 10:30 PM |

5. Wooster Community Hospital
1761 Beall Avenue
Wooster, Ohio 44691
Phone: 330-263-8656
Clinical Preceptor: Jamie Sours, R.T., (R), (MR) 8:00 AM - 3:30 PM
3:00 PM – 10:30 PM

6. Wooster Community Hospital Health Point Facility
3727 Friendsville Road
Wooster, Ohio 44691
Phone: 330-263-8656
Clinical Preceptor: Amy Ullman, R.T., (R) 8:00 AM – 3:30 PM

7. Wooster Community Hospital Milltown Service Center
128 East Milltown Road
Wooster, Ohio 44691
Clinical Preceptor: Dori Hartzler, R.T. (R) 8:00 AM – 3:30 PM

8. Nationwide Children's Hospital
700 Children's Drive
Columbus, OH 43210
Phone: (614) 722-2368
Clinical Preceptor: Jason Schaadt, R.T. (R)
Katie Daugherty, R.T. (R) 8:00 AM – 3:30 PM

CLINICAL PRECEPTOR ASSISTANTS - will work with the Clinical Preceptor to perform competency evaluations when the Clinical Preceptor is away from the department or working with another student.

1. Ohio Health/Mansfield Hospital
Mary Niedermeier, R.T., (R) Megan Penney R.T. (R) Shianne Shepherd R.T. (R)
Ashley Braun R.T. (R) Fred Haft R.T. (R) Cindy Stephens R.T. (R)
Kendalyn Hinton R.T. (R) Heidi Baker R.T. (R)

3. Avita Health System/Galion Hospital
George Gamboa, R.T. (R)(CT)(MR) Dawn Schaffner, R.T. (R), (CNMT) Anila Prifti R. T. (R)
Christina Mavis, R.T. (R) (MR) Brian Scott R.T. (R)
Michelle Feik, R.T., (R), (CT) (MR) Karla Meisner R.T. (R) (MR)

4. University Hospital Samaritan Medical Center
Heidi McFadden, R.T., (R) Heather Rootman R.T. (R)
Rebecca Hootman R.T. (R)

5. Wooster Community Hospital
Dori Hartzler, B.A., R.T., (R) Jessica Klaamyer R.T. (R)
Amy Ullman, R.T., (R) Sara Gerisch R.T. (R)

NORTH CENTRAL STATE COLLEGE
STUDENT PROFESSIONAL LIABILITY INSURANCE PROGRAM

Students enrolled in Radiological Sciences are required to purchase professional liability insurance. Contracts for student clinical experience with outside agencies and institutions require this insurance coverage before a student is permitted to participate in an internship or clinical experience. There is an annual fee for Student Professional Liability Insurance. Students enrolled in their first clinical course will pay a \$40.00 premium. The premium is automatically assessed at the time of registration and payment of fees. In the fourth semester, the student will once again be assessed a \$40.00 premium and will be once again covered by Student Professional Liability Insurance and the above rules continue to apply. No refunds will be made for unexpired coverage due to drop-outs. Coverage terminates upon graduation. It is not possible in this format to include all of the benefits and limitations of the policies referred to in this summation. In the event of a loss or claim, the specific terms and limits of the policy will apply. For further information regarding these policies and actual benefits, limitations, exclusions or reductions, please contact the College Business Office.

RADIOLOGICAL SCIENCES HEALTH CARE POLICY

INJURY OR EXPOSURE TO INFECTIOUS ORGANISMS:

Individuals working in the health-care field are at risk for injury and exposure to infectious diseases. Students in the Radiological Sciences Program must comply with the clinical agency policies related to the prevention of injury or exposure to infectious organisms. In the event of injury or exposure to an infectious organism, the student will follow the established protocol in the clinical agency for reporting and treatment. The student will also notify the clinical preceptor. The student may be responsible for payment of the established hospital or medical related charges that may have incurred due to injury or exposure to infectious organisms while at clinical education.

If a student has a deficient immune system, is pregnant or being administered medication which might result in increased risks from exposure to infectious diseases, evidence of this must be provided to the Radiology faculty from the attending physician. In these instances, the clinical agency in which the student is assigned may require the student to wear a mask while at the clinical site. In addition, if a student is provided a waiver from receiving any of the required vaccinations the clinical affiliate may require the student to wear a mask while in the facility. In all other instances, students will be expected to accept the assignments as deemed appropriate for meeting the established objectives of the Radiologic Sciences course.

Radiological Sciences students and others who have clinical contact with blood, or other body fluids must follow appropriate procedures and precautions. (Note the following Guidelines for Standard Precautions for Health Care Workers).

STANDARD PRECAUTIONS FOR HEALTH CARE WORKERS

(FROM: Centers for Disease Control, "Recommendations for Prevention of HIV Transmission in Healthcare Settings." MMWR, 36: Supplement, No. 2, 1987).

Since medical history and examination cannot reliably identify all patients infected with HIV or other blood-borne pathogens, blood and body fluid precautions should be consistently used for all patients. This approach, recommended by CDC - and referred to as "body substances precautions" - is especially important in emergency care settings where the risk of blood exposure is increased and the infection status of the patient

is usually unknown. Implementation of universal blood and body fluid precautions for ALL patients eliminates the need for use of the isolation category of "Blood and Body Fluid Precautions" previously recommended for patients known or suspected to be infected with blood-borne pathogens. Isolation precautions, however, should be used as necessary if associated conditions, such as infectious diarrhea or tuberculosis are diagnosed or suspected.

BARRIER PRECAUTIONS

- * All health care workers must routinely use appropriate barrier precautions to prevent skin and mucous-membrane exposure when contact with blood or other body fluids of any patient is anticipated.
- * Gloves must be worn for touching blood and body fluids, mucous membranes, or non-intact skin of all patients; for handling items or surfaces soiled with blood or body fluids/ and for performing venipuncture and other vascular access procedures. Gloves should be changed after contact with each patient.
If a glove is torn or a needle stick or other injury occurs, the glove should be removed and a new glove used as promptly as patient safety permits; the needle or instrument involved in the incident should also be removed from the sterile field.
- * Masks and protective eyewear or face shields should be worn during procedures that are likely to generate droplets of blood or other body fluids to prevent exposure of mucous membranes of the mouth, nose and eyes.
- * Isolation gowns are worn during procedures that are likely to generate splashes of blood or other body fluids.

HAND HYGIENE

- * Hand hygiene has been frequently cited as the single most important practice to reduce the transmission of infectious agents in the healthcare setting. (CDC, 2007)
Hand hygiene includes both hand washing with either plain or anti-septic soap and water and use of alcohol-based products (gels, foams, rinses) that do not require the use of water.
- * Hand hygiene must be used before and after the care of each patient.
- * In the absence of visible soiling of the hands, approved alcohol-based products are preferred over anti-microbial or plain soap and water for hand disinfectant.
- * Hands and other skin surfaces should be washed with soap and water immediately and thoroughly if contaminated with blood and other body fluids.
- * Hand hygiene should be used after the removal of gloves
- * Persons wearing artificial fingernails have been shown to harbor more pathogenic organisms, especially gram-negative bacilli and yeast under the nails than those persons with natural nails. (CDC, 2007) Artificial nails are not to be worn by persons who provide direct contact with patients. Students are not permitted to wear artificial nails at any time in clinical education.

PREVENTION OF NEEDLE INJURIES

- * All health care workers should take precautions to prevent injuries caused by needles, scalpels and other sharp instruments or devices during procedures; when cleaning used instruments; during disposal of used needles; and when handling sharp instruments after procedures.
- * To prevent needle stick injuries, needles should not be recapped, purposely bent or broken by hand, removed from disposable syringes, or otherwise manipulated by hand.

- * After they are used, disposable syringes and needles, scalpel blades and other sharp items should be placed in puncture-resistant containers for disposal; the puncture-resistant containers should be located as close as practical to the area.

CARDIOPULMONARY RESUSCITATION (CPR)

- * To minimize the need for emergency mouth-to-mouth resuscitation, mouthpieces, resuscitation bags, or other ventilation devices should be available for use in areas in which the need for resuscitation is predictable.

SKIN LESIONS

- * Health care workers who have exudative lesions or weeping dermatitis should refrain from all direct patient care and from handling patient care equipment until the condition resolves.

PREGNANT HEALTH CARE WORKERS

- * Pregnant health care workers are not known to be at greater risk of contracting HIV infection than health care workers who are not pregnant.
- * However, if a health care worker develops HIV infection during pregnancy, the infant is at risk of infection resulting from perinatal transmission.
- * Because of this risk, pregnant health care workers should be especially familiar with and strictly adhere to precautions to minimize the risk of HIV transmission.

INVASIVE PROCEDURES

The body fluid substances precautions listed above, combined with the precautions listed below, should be the minimum precautions for ALL such invasive procedures.

- * Gloves and surgical masks must be worn for all invasive procedures.
- * Gowns and protective eyewear or face shields should be worn for procedures that commonly result in the generation of droplets, splashing of blood or other body fluids, or the generation of bone chips.

Immunization/Vaccination Policy

In order to enter and remain in the clinical course sequence, students are required to obtain specified immunizations/vaccinations and provide a record of such to program faculty. When accepted into the program, students are given a letter explaining the types of immunizations required and the deadline for submission. Students who fail to complete the immunizations and provide a record by the specified date will not be permitted to attend clinical education. Students are also required to receive the most current influenza vaccine each year to attend clinical. All time missed from clinical must be made up by the student. Program dismissal may be possible.

CPR POLICY

All students entering the clinical course sequence must be certified in Basic Life Support (CPR) for health care professionals. The certification must be current throughout the program. Any student whose CPR expires during the course of the program is required to renew the certification without allowing any lapse time. Failure to do so would exempt the student from clinical courses and may result in dismissal from the program. Acceptable Proof of CPR:

American Heart Association, Basic Life Support Cardiopulmonary Resuscitation for the Health Care Provider is considered the “gold standard”. Acceptable Equivalent: American Red Cross, BLS for Healthcare providers. Acceptable Proof of First Aid: American Red Cross-Standard First Aid, National Safety Council-Standard First Aid. Completion of HLST 1010 CPR/First Aid can also fill this requirement. A current CPR and First Aid card will show successful completion.

CLINICAL RECORDS POLICY- TRAJECSYS

There are many documents, objectives and evaluations required for clinical education. The program uses the Trajecsys clinical records management system to record most clinical data. The Trajecsys system costs \$150.00 per student for the duration of the program. Students will be assessed the cost in their college tuition and fees. Beginning 30 days prior to the beginning of the program, students will be asked to set up an account in Trajecsys and this account will be used throughout to the program. An orientation to the system will be provided. Trajecsys is used to document clinical time, evaluations and competencies.

Each clinical day the student will use Trajecsys to:

- Check announcements for any clinical updates
- Record their clinical time by “clocking in” and “clocking out”
- Schedule any clinical make up time
- Have a daily tech evaluation completed at end of each clinical day
- Complete a self-evaluation and sign/consent policies when indicated
- Submit reflection papers with special modality rotations
- View evaluations and feedback from clinical preceptors

Clinical preceptors will use Trajecsys to complete:

- Clinical competencies
- CP mid-term and final evaluations
- Clinical assessments

It is each student’s responsibility to maintain their clinical records in accordance with the regulations. Clinical records within Trajecsys are private. Student records can be accessed and viewed by their site clinical preceptor, the Clinical Coordinator and Program Director. Clinical records are not entirely paperless. The documents tab in Trajecsys provides various paper forms that may be needed throughout your clinical education. Some clinical documents will be provided to the student to complete and submit to the clinical preceptor.

PROFESSIONAL CONDUCT AT THE CLINICAL SITE

The student is responsible for his/her behavior as both an individual and as a member of the health care team. Rules of behavior which are endorsed as appropriate according to high social, professional, ethical, and moral standards are expected to be followed. As a consequence, the student is held responsible for any acts which may violate these standards. The following have been established to provide guidelines for proper, professional conduct:

- Students are expected to conduct themselves in a professional manner at all times while in the College, hospital, or while participating in program functions.

- While at the clinical education setting students are expected to take notes, ask questions, and assist as much as possible.
- Students are expected to stay busy. Even if the department is slow, students should be reviewing images for anatomy, pathology and image quality. Practicing positioning and reviewing procedures is highly encouraged.
- Students are expected to be prepared for clinical experiences. A clinical notebook is required to be kept and written in routinely. The notebook is to be studied both at clinical and at home. Students are required to anticipate learning situations and be ready to practice or perform clinical competencies and objectives when opportunities arise.
- Students are expected to apply all learned principles of patient care, radiation protection, positioning, immobilization, and exposure factors. All procedures done or modalities observed may be referenced in the *Merrill's Atlas of Radiographic Positions and Radiologic Procedures*. Students are to work through the assigned clinical objectives provided in this manual in order to benefit from the clinical experience.
- Students are required to maintain a professional appearance while at clinical. Proper dress code and hygiene must be followed. Students who do not look professional while at clinical may be sent home and will be required to make up time.
- Gossiping with clinical staff or other students is considered unprofessional and undermines the learning atmosphere. If a student finds themselves in a situation in which gossiping is occurring, they are to remove themselves from the situation.
- Solicitation or acceptance of tips from patients or hospital visitors is prohibited.
- Visiting with a patient (friend or family) during clinical hours is not permitted. Visits may be made during lunch or before/after clinical hours.
- Sleeping during clinical or didactic hours is unacceptable.
- Personal phone calls and texting are permitted before and after clinical hours and during lunch breaks ONLY. Cell phones are to be kept in a secure place and not on the uniform. In anticipated cases of family emergency, the student must give the main radiology department number to family.
- All unusual incidents concerning hospital patients, students, visitors, staff, etc. must be reported to the Clinical Preceptor or radiology department supervisor. The proper incident report or other written documentation in accordance with hospital and/or college policies must be completed if applicable.
- Romantic relationships between students or between students and radiology department employees are prohibited until after graduation. Clinical Preceptors may be obligated to report these incidences to hospital management. Hospital management will determine if the student will remain at the facility or if another clinical assignment is warranted. If placement at another clinical site is not available, the student may be dismissed from the program. Program faculty reserve the right to modify clinical rotations if necessary.

The following are considered examples of severe, inexcusable behavior which may result in immediate dismissal from the program:

- Falsification of any information to the hospital or College
- Falsification or misuse of College or hospital records, including time sheets, technologist evaluations, etc.
- Working beyond the appropriate duties of a student.
- Removal of clinical records from the clinical site. Students are encouraged to review their clinical competencies, evaluations, written observations, etc. regularly for educational purposes. Clinical records may be photocopied with permission of the program faculty for learning purposes but the original records must remain at the site.
- Excessive absenteeism/tardiness.
- Violation of HIPAA policy.
- Deliberate damage to College, hospital or other's property.
- Stealing
- Physical assault of another individual
- Carrying a weapon on College or hospital premises.
- Consumption of intoxicants or drugs while on College or hospital property or attempting to perform duties while under the influence of alcohol or other drugs.
- Drug dealing or attempted drug dealing.
- The faculty, clinical preceptors and clinical staff reserve the right to request that a student leave the premises if they feel a student could be harmful to themselves, patients, fellow students, clinical staff, and all other individuals. Once the student is asked to leave, the student must leave immediately to avoid the involvement of hospital security or law enforcement. A follow up meeting with program faculty within 3 business days will be arranged to discuss the issue. At this time, various disciplinary actions may be taken.

It is impossible to compile a complete summary of misconduct that requires disciplinary action. Program faculty are responsible for interpreting the rules of conduct, and any questions in this area should be addressed to the program faculty.

Failure of the student to abide by general rules and regulations will result in disciplinary action. If disciplinary action is taken, the student will be advised of this action in private consultation with the college faculty. The action will be documented in the student's file and the student will be asked to sign the document to indicate their awareness of this action.

CONFLICT RESOLUTION PROCEDURE FOR CLINICAL EDUCATION

If a situation occurs, in which a student disagrees with clinical policies and procedures as they are being applied to the student; an organized method for discussion and resolution exists. This method is to be followed by all students and is considered part of the professional conduct of the student. If a student does not follow the conflict resolution procedure the student will be directed to the appropriate level of communication to attempt to resolve the issue.

In clinical the **first step** is to discuss the situation with the **clinical preceptor**. The clinical preceptor will attempt to address the situation using program goals, outcomes and policies and hospital policies and known practices from the past. The student must keep in mind that not all situations will be resolved in their favor. The clinical preceptor will provide explanations for their method of handling the situation.

If the student feels that the situation needs further discussion beyond the clinical preceptor, the student will discuss the situation with the **clinical coordinator**. The clinical coordinator will confer with the clinical preceptor for input and use program goals, outcomes and policies and known practices from the past to handle the situation. Again, the student must keep in mind that not all situations will be resolved in their favor and an explanation for the resolution will be provided.

If the student remains unsatisfied with the resolution to the situation, the student may discuss the situation with the **program director**. The program director will confer with the clinical coordinator and possibly the clinical preceptor and use program goals, outcomes and policies and known practices from the past to handle the situation. Again, the student must keep in mind that not all situations will be resolved in their favor and an explanation for the resolution will be provided.

If the student has exhausted discussion of the situation with all program faculty and still finds an unsatisfactory resolution, the student may move beyond the program and discuss the situation with the **Assistant Dean of Health Sciences**. The student must make an appointment to speak to the assistant dean through the administrative office in the Health Science Building. The assistant dean will meet with program faculty to discuss the concern and use judgement based on program goals and outcomes and division-wide student goals and outcomes. Again, the student must keep in mind that not all situations will be resolved in their favor and an explanation for the resolution will be provided

DRESS CODE POLICY

Maintaining a neat and professional appearance is of the utmost importance in the clinical education setting. This includes daily personal hygiene and dental hygiene. Students who do not follow the dress code will be subject to discipline as stated in this manual. The dress code applies to all students anytime they are in the hospital setting. This includes all scheduled rotations in addition to afternoon shifts and make-up time. All dress code violations will be documented and disciplined.

UNIFORM

Freshly laundered and pressed green scrub pants and top and green warm up jacket (specified by the program) is required. A plain white tee shirt with a round neck (not-V-neck) must be worn under any V-neck top. Hospital I.D., & professional shoes or white, leather tennis shoes will be worn when in the clinical area.

Purchasing scrubs that fit properly is very important. While in clinical, the student must be able to bend over, reach over their head or perform any other movement without their scrubs riding up or down and demonstrating skin or underwear.

HOSPITAL ID Hospital and College ID's are required to be worn at all times while at any clinical site. ID's must be worn above the waist and be visible on the uniform at all times. If a lanyard is worn, it must be releasable.

HAIR Women: Neat, clean, and secured on top of head or nape of neck if longer than chin length. Hair color must be a natural shade and NOT draw attention to the individual. Dread locks, feathers, beads, braids and other hair accessories are not permitted. Head bands may be worn but only solid black, white, or green in color. No patterns or sequence on the headbands are permitted.

Men: Clean and neatly cut. Hair color must be a natural shade and NOT draw attention to the individual. Men must be clean shaven or have neatly trimmed facial hair. The "Scruffy" look or long facial hair is not permitted. Dread locks are not permitted.

NAILS Are to be kept short and clean. Students are not permitted to wear artificial nails. Nail polish is not permitted. (See hand hygiene policy in this manual)

JEWELRY One ring, watch, and 2 pairs post earrings in the ear or ear lobe only. Necklaces are not permitted for safety purposes. Other body piercing jewelry is NOT permitted. Metal or plastic piercings are not permitted in the tongue.

TATTOOS All TATTOOS must be covered while at the clinical site. Tattoos on the upper arm, forearm, elbow and wrist must be covered by a long sleeve white shirt under the scrub top or a lab coat over the scrub top. Tattoos on the neck will be covered with collars or "turtle neck" shirts.

PERFUME Strong smelling scents are not permitted for the benefit of ill patients whose sense of smell may be affected or enhanced by their illness.

GUM No gum is allowed during clinical hours. You may use breath mints

SMART WATCHES Smartwatches are not allowed to be worn during clinical hours.

THE CLINICAL TIME LOG

The student must maintain a time log at the clinical site. This time log is completed on Trajecsys which documents total number of daily hours and also maintains cumulative total of hours throughout the semester.

The student:

1. Is to sign in to Trajecsys at the beginning of the shift using the clinical site's designated computer. The student will "clock in" and will not "clock out" until the end of the shift. The time documented must reflect the correct time as noted by a clock or cell phone.
2. Will notify the clinical preceptor or charge radiographer if they must leave during a scheduled shift. Leaving the clinical site for lunch is not permitted.
3. Will not report for clinical education if the student has any symptoms of illness per the guidelines of the clinical site. The clinical preceptor/charge R.T. may send the student home if he/she determines the student

is too ill to perform duties. If the student is ill, they must follow up with clinical preceptor before returning. This clinical time will be made up at a later date.

4. Will notify the clinical preceptor/charge R.T. if clinical time must be missed in an emergency situation. This missed clinical time must be made up at a later date.
5. **IMPORTANT** –The time log is reviewed and approved by the clinical preceptors. Radiology faculty and clinical preceptors consistently review time logs in Trajecsys.

ATTENDANCE POLICY FOR CLINICAL EDUCATION

Clinical education for the Radiological Sciences program is patterned after a competency-based model. Success in obtaining a high level of competency is dependent upon many factors including attendance at the clinical site. The student is expected to demonstrate professionalism and high ethical standards at the clinical site. Promptness and consistent attendance contributes to developing a positive work ethic and a professional standard.

If a student needs to miss clinical time, they are required to call the clinical site prior to the shift and either talk to the clinical preceptor, leave a message with an employee, or leave a message on the clinical preceptor's office phone. The clinical preceptor is not responsible for messages that have not been relayed to them by employees, so the student should write the name of the individual that they spoke to and the time they called, in case a question arises later.

If the student is rotating to a clinical site other than their own clinical site and misses time, they must call the site that they are scheduled at and follow the above steps. Phone numbers for all of the clinical sites may be found in this manual (See Table of Contents, Program Faculty/ Clinical Preceptors, Clinical Sites)

Missed clinical time is counted in occurrences. Each of the following is considered one occurrence:

1. Being absent from clinical for any reason
2. Coming to clinical late (late is defined as 1 minute late or more)
3. Leaving before the end of a clinical shift (leaving early is defined as 1 minute early or more)
4. Scheduling vacation during clinical hours
5. No call, no show (being absent or late and not calling the clinical site)
6. Failure to complete make-up time as agreed upon on the "Clinical Hours Make Up Plan" form in Trajecsys
7. Scheduling physician's appointments, court dates, or any other appointment without pre-approval from the Clinical preceptor. (An excuse from the court or physician must also be provided upon return. Failure to provide a written excuse will result in a written warning.)

Students who have been hospitalized, have undergone surgery or have had a serious illness or injury must provide a physician's release to return to clinical. A student who has been placed on "light duty" or "administrative leave" due to a health illness or injury are not permitted to be in clinical education. An Action Plan will be completed by the Clinical Coordinator or Clinical Preceptor listing dates and room assignments missed. Once the student has been released to return to normal work duty, the student will work with the clinical coordinator or clinical preceptor to schedule and complete the missing clinical time. If the time cannot be completed by the end of the semester the student will be given an Incomplete in clinical education until the

missed time and all other course objectives are completed. If capable, the student may attend class. The student may also attend labs in an observation status only until released by a physician.

All time missed by the student must be made up before the end of the semester if possible. If Make-Up-Time is significant and unexcused, the student may be unable to make up the time before the end of the semester. In this case, the student may receive a NO Pass for clinical education. If the Make-Up-Time has been excused, and not made up before the end of the semester, the student may receive an Incomplete for the semester. There are specific criteria for the make-up of clinical time. See Make-Up Time Policy (Table of Contents, this manual).

Attendance Policy for Radiological Sciences

Semester	Number of occurrences that result in a written warning	Number of occurrences that result in probation	Number of occurrences that result in course failure/dismissal
Fall 1 & Spring 1	2	3	5
Summer	2	3	5
Fall 2 & Spring 2	3	4	6

*** Note: if a student is on probation for attendance, they will receive a zero on the clinical instructor evaluation under attendance for as long as the student remains on probation.**

Number of clinical hours required for each semester (minus college holidays)

Fall 1 15 days/105 hours

Spring 1 15 days/105 hours

Summer 15 days/112 hours

Fall 2 30 days/210 hours

Spring 2 45 days/315 hours

INCLEMENT WEATHER

College campus closings will be announced over the local radio stations, email and through cell phone text if the student subscribes to the service (Buckeye Alert). If the College is closed due to inclement weather, students are not required to come to class or be at the clinical site. If classes are delayed, students should report to class or clinical at the time the college opens, road conditions allowing.

UNFORSEEN CIRCUMSTANCES

If the college is closed for other special circumstances (power, water, etc.), class will not be in session but clinical assignments for the day may still be required. Check the Canvas course announcements for details.

MAKE-UP-TIME POLICY

If a student misses clinical time, the following procedure must be followed.

1. A “Clinical Hours Make Up Plan” form in Trajecsys must be completed by the student on the next clinical day.
2. The “Clinical Hours Make Up Plan” must be approved by the clinical preceptor. Students are not permitted to make up time without the clinical preceptor’s written approval first.
3. The make-up time plan must reflect similar hours that the student missed as well as a similar clinical experience. For example, if a student misses 4 hours one morning in fluoroscopy then 4 hours in fluoroscopy must be rescheduled for make-up time. Furthermore, if a student missed time in surgery, the student must make up that time in surgery. If a student misses time at a visiting site, the student must make the time up at the visiting site.
4. Make-up time needs to be made up before the end of the semester to avoid a NO Pass clinical grade. During the semester, students are not permitted to make-up time on days when their class is not routinely scheduled at the site. For example, no second-year make-up time on a first-year clinical day.
5. Students are not permitted to make up time on holidays recognized by the clinical site.
6. If a student has three hours or less of make-up time, that time may be added onto a regularly scheduled clinical day assuming the make-up time reflects the time that they missed. Students are not permitted to work longer than a 10-hour clinical day. If a student has more than three hours of make-up time to complete, a separate day must be scheduled for make-up.
7. When a student reports for make-up time, they must clock in and out in Trajecsys. Failure to follow this protocol may result in having clinical make-up time not recognized.
8. The program faculty and clinical preceptors reserve the right to schedule or deny make-up time scheduling requests if necessary.
9. If the student is planning to take un-excused clinical time (such as vacation, or a random request for a day off without documentation of illness, court dates, etc.) the student must meet with the **clinical coordinator** to discuss this absence.

“BANKED” CLINICAL HOURS

On rare occasions a student may need to have a medical/emergency absence from clinical education. Such as, in the case of pregnancy or planned surgery, the student may work extra clinical hours and “bank” these hours for future application to meet the clinical hours objective.

If a situation arises in which a student wants to bank clinical hours, a written detailed plan must be developed with documented approval of the clinical coordinator and clinical preceptor. Hours may not be banked for a planned vacation

PATIENT SAFETY POLICY

Patient safety and security is the responsibility of the radiographer who is in direct contact with the patient. The radiographer's responsibility for patient safety and security is extended to all areas of the hospital in which the radiographer is expected to perform radiographic procedures. (Emergency Department, Inpatient floors and the Operating Room, etc.)

A radiology student performs radiographic examinations under direct and indirect supervision of the radiographer and is required to provide appropriate patient care. A radiology student is expected to employ the skills and concepts that are taught in didactic classes and clinical courses any time they are in direct contact with a patient. These skills and concepts include, but are not limited to, safe patient transfer methods from wheelchairs and stretchers to and from the radiographic table, assisting patients on and off the radiographic table, and attention to patient care when the patient is required to remain on the radiographic table or anywhere in the radiology room. This includes monitoring the patient for any changes in their health status.

The radiology student who is working under direct or indirect supervision, as stated in this Policy and Procedure Manual (see *Table of Contents*), must provide a safe and secure environment for the patient at all times. Any student who is observed not providing patient care at this level will be subject to the following disciplinary policy:

- * **First Offense** - a written warning is given to the student on an Advising form. The advising form will state the offense and how the correct action/behavior is to be performed. A copy of this form will be sent to the clinical coordinator.

- * **Second Offense** - a written warning is given to the student on an Advising form with notification to program faculty. At that time the clinical coordinator and clinical preceptor will design an Action Plan to address the specific deficiency or deficiencies. During this remediation period, the student must work under direct supervision of a radiographer when with patients. Depending on the situation, the student may be removed from patient care responsibilities until the remediation is completed.

- * **Third Offense** - the student is immediately suspended from clinical education. An Advising form will be completed by the clinical preceptor stating the offense and the form will be faxed to program faculty. Program faculty and the clinical preceptor will meet within 3 business days to decide what action will be taken. Dismissal from the program may result at that time.

DIRECT AND INDIRECT SUPERVISION POLICY

Direct supervision is defined by the JRCERT as supervision by a qualified practitioner who:

- Reviews the procedure in relation to the student's achievement;
- Evaluates the condition of the patient in relation to the student's knowledge;
- Is physically present during the conduct of the procedure;
- Reviews and approves the procedure and/or image. (JRCERT standard 5.4)
- Students must be directly supervised while performing fluoroscopy, portable x-rays and surgical procedures regardless of their level of achievement
- Students will perform all procedures under direct supervision of a registered radiographer until a competency/simulation of that procedure has been successfully completed and recorded by the clinical preceptor. Students are not to be supervised by Radiologists.
- All repeat exposures must be performed under direct supervision of a registered radiographer and must be recorded on a tally sheet of exams, included in this manual and initialed by the registered radiographer who witnessed the repeat exposure(s).

Indirect supervision is defined by the JRCERT as that supervision provided by a qualified practitioner who:

- Is immediately available to assist students regardless of the level of student achievement. Immediately available is interpreted as the physical presence of a qualified practitioner adjacent to the room or location where a radiographic procedure is being performed. This availability applies to all areas where ionizing radiation equipment is in use. (JRCERT standard 5.4)
- Students may perform procedures under indirect supervision of a registered radiographer after a competency/simulation of that procedure has been successfully completed and recorded by the clinical preceptor.
- Under no circumstances should a student be under direct or indirect supervision of a general x-ray machine operator. (GXMO).or a Radiologist.
-

Repeat Exposures

- Repeat exposures represent additional radiation exposure to the patient
- All repeat exposures must be performed under direct supervision of a registered radiographer who is physically present in the room
- It is the registered radiographer's responsibility to correct the student if the exam has not been performed correctly prior to a repeat exposure to avoid additional radiation exposure to the patient.
- All repeat exposures must be recorded on the student tally sheet and the registered radiographer who supervised the repeat must initial the form.

Students who fail to follow the Direct/Indirect Policy will be subject to discipline

TALLY SHEET OF EXAMS

Tally sheets help students and faculty document the frequency that exams are observed, assisted and performed as well as provide a document of verification of student repeats with direct supervision.

On the tally sheet, the student must record the date, radiography number (or patient identifier other than the patient's name), name of the radiographic exam, and whether the student observed (O), assisted (A) or performed (P) the exam. Each page of the tally sheets is labeled with specific anatomic regions and students are required to record the type of exam on the tally sheet under the appropriate anatomic region.

(O) observed = document this when watching

(A) assist= document this when helping with an exam and before you have performed a successful competency on it

(P) performed = document this when performing the exam after you have successfully performed a competency on the exam. To record a perform the student's lead markers must be on the image.

If the student must repeat an exposure they have performed, they must indicate this on the tally sheet and include the reason for the repeat and the R.T.'s initials that supervised the repeat exposure.

At the end of each semester, students must hand in their tally sheet to the clinical preceptor for grading. Failure to turn in the tally sheet will result in an incomplete for the semester.

The tally sheet documents the following items:

1. Direct supervision by an R.T. when the student made repeat exposures
2. The volume and variety of exams experienced by the student so educational needs can be identified and addressed
3. Exams for later review for educational purposes
4. Exams for quality assurance issues.

Remember, under no circumstances should a student perform a repeat image without direct supervision. The repeated image should be recorded on the tally sheet and must be initialed by the R.T. who provided direct supervision at the time of the repeat.

Tally sheets are provided to students and can be found under the documents tab of Trajecsys

RADIATION PROTECTION POLICY

Exposure to large amounts of radiation can result in an increased chance of cancer or other long-term radiation effects. However, being aware of sources of radiation and practicing the radiation safety precautions taught in didactic courses and clinical education will result in little or no radiation exposure.

Restricted Areas- rooms with radiation-generating equipment at the college and in the clinical settings are marked with the universal yellow radiation sign or a sign stating "X-rays in use". These areas are designated "Restricted Areas" to limit radiation exposure to personnel, patients and the general public. When a door is closed to a "Restricted Area", radiographers are to knock first to get permission from the operator to enter.

Students in the Radiological Science Program must monitor and document their exposure to radiation both in the clinical setting and in the college lab. Radiation monitoring devices (film badges) will be provided to all students and the following guidelines will be followed:

1. A film badge will be worn at the collar at all times when using ionizing radiation during clinical education and energized laboratory procedures. Any student not wearing a film badge will not be permitted at the clinical education site. The missed time is considered an absence and must be made-up at a later date.
2. Film badges are to be exchanged in a timely fashion as determined by each clinical site.
3. **Film badges issued by the clinical site must not be removed from the site.**
4. Loss or accidental exposure of a film badge must be reported to the clinical preceptor immediately. The radiation safety officer at that site will be consulted, and the program director will be notified. **The cost of a replacement badge may be the student's responsibility.** The student may also have to pay a late fee for badges not returned on time.
5. A separate film badge will be provided for college lab.
6. The student is to use the college badge when attending clinical education at any site other than their primary site.
7. Leaded apparel must be worn during fluoroscopy, if not behind the protective barrier, and for all portable and surgical exams.
8. During fluoroscopy or portable exams, film badges will be worn outside the lead apron on the collar or near the thyroid.
9. During portable exams, a lead apron must be worn and the student must stand 6 feet from the portable machine when making an exposure.
10. Students must not hold image receptors during and radiographic procedure
11. Students should not hold patients during any radiographic procedure when an immobilization method is the appropriate standard of care.

Radiation monitoring reports are posted at the college and clinical sites each calendar quarter. It is the student's responsibility to check these reports and document their combined (college and clinical site) exposure on the radiation exposure log

The annual whole-body Total Effective Dose Equivalent (TEDE) for radiation workers is .05 Sv or 50 mSv (5 rem or 5000 mrem) In the event a student's radiation report shows an excess of .025 Sv or 25 mSv (2.5 rem or 2500 mrem) the student will meet with the clinical preceptor and/or clinical coordinator to review and discuss radiation protection practices.

Failure to follow established radiation safety techniques may lead to disciplinary action.

NOTIFICATION OF UNUSAL EVENT

In accordance with Ohio Administrative Code § 3701:1-66-04(B)(3)

The Program Director will immediately, by writing and phone call, notify the Director of the Ohio Department of Health of any student who receives a radiation exposure of 50 mSv or greater.

PREGNANCY POLICY

A number of studies have suggested that the first three months of pregnancy is the most critical time to avoid being exposed to ionizing radiation. The National Council on Radiation Protection and Measurements (NCRP) has recommended that special precautions be taken to limit exposure when an occupationally exposed woman could be pregnant. Specifically, the NCRP has recommended the dose equivalent limit to the fetus from occupational exposure to the expectant mother should not exceed 5 mSv. This is approximately one-tenth of the occupational dose equivalent limit.

Any student who believes she may be pregnant shall follow these procedures:

1. Upon diagnosis of pregnancy, the student may voluntarily notify the program director in writing of her pregnancy. It must include the expected delivery date. In the absence of this voluntary, written disclosure, a student will not be considered pregnant. The college and clinical site will not be held accountable if the student fails to notify the program director in writing of a pregnancy.
2. If the student chooses to disclose her pregnancy, she has the option of continuing in the program without modification or withdrawing from the program. If the student chooses to withdraw from the program, she will be given the opportunity to reenter the program as a returning student. (Criteria for Returning Students is included in this manual. See Table of Contents.)
3. The student has the option for written withdrawal of declaration.
4. The student's total accumulated exposure during her pregnancy shall not exceed 5 mSv (not to exceed 0.5 mSv in any one month). If the exposure dose is exceeded, the student shall be prohibited from continuing clinical education and be required to withdraw from the clinical education course. In order to return into the program, the student must go to the Admissions Office at North Central State College to fill out an admission with advanced standing form. During the pregnancy it is the student's responsibility to continually check the film badge reports and initial that she has read the report. This report is also checked and initialed by the radiation safety officer monthly for verification of accumulated exposure. The program director also receives a copy of this report for review.
5. In addition, the student may request a second film badge to wear at her waist level during clinical education. The student may be charged for this badge.
6. The faculty will create an action plan to help the student make up missed clinical hours during recovery from delivery. Depending on the number of hours missed and the semester of absence, the student may need to extend the length of the program.
7. The student is required to present a physician's release to return to clinical education following delivery.

**SAFE OPERATING PROCEDURES FOR RADIATION IN THE
COLLEGE LAB**

1. Radiation monitoring devices (film badges) are to be worn in lab at all times when the lab is energized. When not worn, these badges are to remain in the control booth.
2. Students and faculty will remain behind a lead barrier during all exposures.
3. No one will remain in the exam room to hold or demonstrate holding a patient during an exposure. In addition, X-rays on humans are not permitted.
4. Radiation monitoring reports will be posted each on the classroom bulletin board each calendar quarter.
5. The Program Director will discuss any level of radiation received with those concerned. Students are responsible for maintaining the radiation exposure log (included in this manual, see Table of Contents). Failure to follow this policy will result in disciplinary action.
6. Both lab doors have a lock-out mechanism so that exposures can only be made if the doors are closed.
7. An instructor must be present during exposures for all first-year students.
8. An instructor must be readily available and in close proximity for second year students to make exposures.
9. An exposure button or cord will not extend beyond the lead barrier.
10. Only students enrolled in the Radiological Sciences Program may operate the equipment and make exposures. Exposures may be made on non-animated objects only.
11. Students must use the portable machine under direct supervision. The operator must wear a lead apron, film badge, and stand at least 6 feet away from the source while making exposures. Other students and faculty must step out of the room while the exposure is being made.
12. Regulatory items may be found in the ODH Manual located in the Radiology Lab (Rm 144-HS).

RADIATION EXPOSURE LOG RATIONALE

Radiation monitoring devices are provided by the clinical site to record clinical exposure as well as by the college to record lab exposure. Therefore, students will have two radiation monitoring devices and will be receiving two radiation monitoring reports. In the event that a clinical site does not supply the student with a radiation monitoring device, the student will use the college film badge at clinical and in lab to monitor radiation.

A exposure log is provided so that the student may record exposure readings from both radiation monitoring devices on one document. A cumulative exposure value will be maintained by the student throughout the program. The student shall record clinical and lab exposures on the log correctly as soon as the reports become available.

The clinical coordinator will monitor all student radiation logs and will check off on the logs routinely. The student is required to maintain an accurate and current log of radiation exposure. Failure to do so may result in disciplinary actions.

The radiation exposure log is available in the documents section of Trajecsys.

**NC State College
CLINICAL EDUCATION PLAN**

The clinical education plan is designed to provide students with a variety of experiences relative to the field of radiological sciences. A five-semester clinical schedule guides the students throughout various radiography rooms and modalities in accordance with the radiography curriculum.

Clinical days are 7.5 hours minus a 30-minute lunch break. Students are not permitted to work more than a 10-hour clinical day. Clinical hours are generally set at either 7:30 am – 3:00 pm or 8:00 am to 3:30 pm depending on the clinical site. Afternoon clinical hours are set at 3:00 pm – 10:30 pm. Occasionally, students may experience a slight alteration in clinical hour start/end time if they are rotating to special radiographic areas or an orthopedic office. Regardless of start time, clinical days are 7.5 hours minus a 30-minute lunch. A clinical schedule will be provided to students in advance.

During the 8-week summer semester clinical shifts are 8.5 hours minus a 30-minute lunch.

ROTATION	SEMESTER
DESK DATA MANAGEMENT	FALL 1-SUMMER
TRANSPORT	FALL 1 -SUMMER
RADIOGRAPHIC/FLUORSCOPIC	FALL 1 THROUGH SPRING 2
PORTABLES	FALL 1 THROUGH SPRING 2
SURGERY	SPRING 1 THROUGH SPRING 2
AFTERNOONS	SUMMER THROUGH SPRING 2
ORTHOPAEDICS	SUMMER THROUGH SPRING 2
CT SCANNING	FALL 2 & SPRING 2
PEDIATRICS	FALL 2
MRI	SPRING 2
NUCLEAR MEDICINE	SPRING 2
ULTRASOUND	SPRING 2
RADIATION THERAPY	SPRING 2

DESCRIPTION OF CLINICAL ROTATIONS

Basic Ancillary Assignments:

Desk: In this area, the student will be introduced to and practice the appropriate methods of communication via telephone and fax. These activities include answering phones, sending and receiving faxes, scheduling exams, answering patients' questions, creating requisitions and assisting patients and families.

Transporting: During this rotation students will be working with the transporting team to bring patients to the department and return the patients back to their rooms. During the rotation students become better acquainted with patients' needs as well as the hospital logistics. Students will gain experience handling IV tubing, oxygen tanks, monitor leads, and other medical devices.

Data Management: Students are required to have a basic knowledge of the manipulation of patient electronic files using computer software. Creating CDs for the release of images to patients and physicians' offices is part of a radiographer's job. Depending on how the clinical department is designed, students may complete these objectives by clinical rotations to Desk or these objectives may be incorporated into daily clinical rotations.

First-Year Rotations through Clinical Areas:

During the first-year students should be learning how to organize the method in which they complete exams; developing a fundamental understanding of the HIS/RIS systems and learn basic positioning and technique skills.

Fluoroscopy: During the first year through the fluoroscopy rooms students should be concentrating on learning the basics which contribute to performing fluoroscopy examinations. The basics are stocking the room, learning the exam protocols, setting up the equipment for exams, learning how to prepare the various contrast media, and assisting with positioning basic procedures, and developing communication skills with the patients.

Genito-Urinary: During the first-year students will assist with urinary procedures. The student should focus on performing the basic abdominal positioning, practicing radiation protection, learning technique selection and patient communication.

Routine/Emergency Room/Free Standing Emergency Room:

These rotations offer the student a great deal of diversity as far as types of exams encountered. Exams from both the axial and appendicular skeleton will be performed. The student is expected to assist and perform exams in which they have been introduced. In addition, there may be an extreme difference in patient care requirements as students perform exams on outpatients who may fully cooperate or emergency room patients who are unable to cooperate.

Second Shift: Students will be scheduled second-shift rotations beginning Summer semester. The workload, type of exams, and clinical work culture varies between first and second shifts. Students will learn creative ways to modify equipment and routine projections to meet the needs of the atypical/trauma patient.

Second-Year Rotations through Clinical Areas:

During the second-year rotations through the clinical areas, students should be accepting greater responsibility in the radiographic rooms. Working together with the radiographers in a team effort is expected with the student progressively assuming more of a leadership role as graduation from the program approaches. Skills with positioning, technique selection, computer technology, patient care, patient communication, and critical thinking and problem-solving should be approaching those of an entry-level radiographer.

Fluoroscopy: The second year through fluoroscopy should provide the student hands-on opportunities to assist and perform specialized exams such as GI procedures, arthrograms, myelograms, hysterosalpingograms, and ERCP's. Student should be assisting in the set-up and participating in the exam procedures. In addition, the student should be improving with getting an exam history from the patient and presenting it to the radiologist.

Genito-Urinary: The last semester should provide the student with the opportunity to perform entire IVU exams with minimal supervision. Students should be responsible for all equipment manipulation, positioning, technique selection, contrast preparation and interactions with the Radiologist.

Routine/Emergency Room/Free Standing Emergency Room: In the second-year students should be improving their positioning and technique skills with all radiographic exams as well as developing critical thinking and problem-solving skills. A varying degree of patient care skills will be required.

Surgery: Radiographic exams are frequently performed in the operating room during the course of surgery. Students need to have the ability to work around the sterile field and also manipulate the equipment efficiently. Students will also become acquainted with both pre- and postoperative patient care activities. By the end of the surgery rotations, students should have the ability to manipulate all fixed and mobile (including C-Arm) equipment within a sterile field. Students are required to perform a competency exam using the C-arm during a surgical procedure.

Rotations to Other Modalities and Sites

Radiation Oncology: The goal for this rotation is for the student to see the equipment and gain an appreciation for the important aspects of setting up the therapy, communicating with the patient, and following the patient progress throughout their therapy. Radiation Therapy is a separate and distinct profession with its own one year, post graduate educational program and certification exams.

Nuclear Medicine: This is a one-day rotation. The goal for this rotation is for the student to understand the basic differences between diagnostic radiography and nuclear medicine. Students should become familiar with the cameras, different collimators, and the radio-pharmaceuticals. Nuclear Medicine is also a separate and distinct profession with its own one year, post graduate educational program and certification board.

Computed Tomography (CT): The student will complete 2 clinical rotations in the CT department. Students need to be familiar with the operation of the computer, patient positioning, and cross-sectional anatomy. Students will complete objectives and be expected to perform a non-contrasted head.

Magnetic Resonance Imaging (MRI): This is a one-day rotation to provide the student with a basic understanding of working with the magnet. MRI does not use ionizing radiation to image the internal body structure. Rather it relies on placing the patient in a very strong magnetic field which realigns the spin of the protons in the body. During this rotation, students should observe how to set up the computer, prep patients for the exam, and recognize cross-sectional anatomy

Pediatrics: A two-day rotation to Nationwide Children’s Hospital in Columbus, Ohio will be provided if the facility’s student capacity allows. Students are expected to assist/perform exams on pediatric patients. The student should make every attempt to have the pediatric objectives completed while on this rotation. The student is required to wear his/her college lab film badge during this rotation and follow all program policies. Before this rotation, students will receive a packet of information needed when attending this rotation.

CLINICAL GRADING

Students will receive a P (Pass) or NP (No Pass) or I (Incomplete) for clinical education. A Pass means that all four areas evaluated (see below) averaged 85% or higher. If any area results in an 85% or lower the student will meet with program faculty and the clinical preceptor to develop an action plan for improvement in that area. A No Pass means the total of the four areas was lower than an 85%.

An Incomplete (I) grade:

The grade of Incomplete (I) indicates that a student has not completed a small amount (approximately 20%) of course requirements due to uncontrollable circumstances. The grade of Incomplete (I) is permitted in a course where the level of work done up to the point of the Incomplete (I) is passing, but not all the work of a course has been completed by the time final grades must be submitted, for reasons of health or extreme emergency.

4 Areas of Evaluation

1. Competency Exam Scores/Simulation Scores: (30% of the clinical grade)

This portion of the criteria is an important aspect of the clinical grade. The accurate performance of the competency exams demonstrates to the student and the instructor that the student is mastering the principles guiding the clinical experience. The criteria for performance of the exams is very specific. Students must perform the competency exam in strict accordance with the specified criteria. A more detailed explanation may be found in this manual. In order for the student to pass a competency or simulation, 85% mastery must be demonstrated.

2. Clinical Test: (25% of clinical grade)

At the end of each semester, students will be given a clinical test encompassing objective from syllabi. The test may also include radiographic images. In general, the test is designed to review previous material while building on new material. The results of this test will be factored into the computation of the clinical points for grade determination.

3. Mid-term and Final Clinical Preceptor Evaluations: (35% of the clinical grade)

Each student will be evaluated, twice per semester, by the clinical preceptor except for Summer semester which is an 8-week semester and will result in one clinical preceptor evaluation at the end of the semester. This evaluation will be very broad-based and will cover student performance as well as demonstrated affective behaviors.

4. **Daily Clinical Evaluation:** (10% of clinical grade)

Evaluations will be filled out by staff radiographers on a daily basis. This daily clinical evaluation (green) should be used for clinical rotations in all clinical rotations except CT, MRI, US, NM and pediatrics. The special procedure rotation (white) should be used for clinical rotations outside of general diagnostic radiology. Students receive a 0 for not turning in the evaluation on the day that the room rotation was performed.

Clinical Assessment

The clinical preceptor (or staff radiographer) will use clinical assessment forms at their discretion throughout the grading period. These assessment forms are observations of the student's performance and provide feedback on areas of strengths and weaknesses. The clinical assessment will be reviewed by the clinical preceptor and student to improve performance.

Action Plans

Action plans are unique learning contracts created specifically to address a student's weaknesses in clinical education. Action plans will be created for students who do not meet clinical objectives. Action plans are monitored by the clinical preceptor and clinical coordinator for the duration of the semester and/or preceding semesters.

COMPETENCY EXAM INTRODUCTION

1. Students are required to perform all 36 mandatory procedures plus 15 elective procedures during the program. Some procedures are eligible for simulation, with a maximum of 10 simulations. Minimum requirements for the number of competencies and simulations per semester are found in the clinical course outcomes (RADS 1120, 1220, 2321, 2420, 2520).
2. Competency for 36 mandatory procedures must be performed on patients. If needed, eligible mandatory procedures may be simulated if demonstration on patient is not possible (without exceeding maximum of 10 total simulations for both mandatory and elective procedures).
3. In addition, 15 of the 34 elective procedures must be performed. These may be performed on patients or simulated at the clinical site. Students must select at least one elective from the cranium section. Students must select two electives from the fluoroscopy studies section. Electives to be simulated must be eligible and can not exceed the maximum of 10 total simulations for both mandatory and elective procedures.
4. The student must be CPR certified in the first semester of the program and perform ten mandatory general patient care activities prior to graduation from the program.
5. The List of Procedures, included in this manual (see Table of Contents), lists the semester that a particular exam is introduced and simulated in the college lab. Competencies performed on patients at the clinical sites may be attempted after simulations in the college lab have been successfully completed. The student must wait until the following semester to attempt a simulation at the clinical site. Simulations may not be attempted until the second semester of the program.
6. After the student has successfully simulated an exam in the college lab, that student may assist a radiographer with the exam at the clinical site. When assisting with the exam for the first time, the student should be responsible for positioning with direct supervision only. On subsequent exams, the student should take a more active part in the exam process. The student must work with direct supervision until a competency exam has been successfully completed. The “assist” column on the tally sheet is used if deemed necessary by the clinical preceptor. A student may need to perform a particular exam several times with direct supervision before a “comp” is attempted.
7. Once a student has simulated in the lab and assisted or performed a procedure under direct supervision at the clinical site, it is time to perform a competency exam on that procedure. The exam must be performed for a clinical preceptor or assistant only. The competency exam will have very stringent criteria associated with the performance of this exam. The criteria will ensure that the student works in an organized fashion, attends to the physical and emotional needs of the patient, and understands the procedure and the images. Refer to specific competency criteria included in this manual. (See Table of Contents.)
8. A log of Radiological Procedures is included in this manual (see Table of Contents) for student use. The clinical preceptor will maintain the official log that is turned into the program director at the completion of the program.
9. Once a student has performed a competency on a particular procedure, the student is expected to demonstrate continued competency in the performance of that procedure. Based on the student’s future performance of that procedure, the clinical preceptor may determine that the student has not maintained competency in the performance of that particular procedure. The result is that the competency for that procedure is pulled from the student’s file and will be regarded as a failed procedure. This failed procedure has the same consequences of any other failed competency procedure. This policy, “criteria for competency - pass/fail”, is included in this manual. (See Table of Contents.)

RADIOLOGICAL PROCEDURES LOG

	Semester Introduced	Mandatory	Elective	Eligible for Simulation	Date Completed	Competence Verified By
CHEST and THORAX						
Chest Routine	1140	√				
Chest AP/LAT (Wheelchair or Stretcher)	1140	√				
Ribs	1240	√		√		
Chest Lateral Decubitus	1140		√	√		
Sternum	1240		√	√		
Upper Airway (Soft-Tissue Neck)	2340		√	√		
Sternoclavicular Joints	1240		√	√		
UPPER EXTREMITY						
Thumb or Finger	1140	√		√		
Hand	1140	√				
Wrist	1140	√				
Forearm	1140	√				
Elbow	1140	√				
Humerus	1140	√		√		
Shoulder	1240	√				
Trauma Shoulder (Scapular Y, Transthoracic or Axillary) *	1240	√				
Trauma: Upper Extremity (Nonshoulder)*	1240	√				
Clavicle	1240	√		√		
Scapula	1240		√	√		
AC Joints	1240		√	√		
LOWER EXTREMITY						
Foot	1140	√				
Ankle	1140	√				
Tibia-Fibula (leg)	1140	√		√		
Knee	1140	√				

	Semester Introduced	Mandatory	Elective	Eligible for Simulation	Date Completed	Competence Verified By
Femur	1140	√		√		
Trauma: Lower Extremity*	2440	√				
Toe	1140		√	√		
Calcaneus (Os Calcis)	1140		√	√		
Patella	1140		√			
CRANIUM – Students must select at least one elective procedure from this section						
Skull	2440		√	√		
Paranasal Sinuses	2440		√	√		
Facial Bones	2440		√	√		
Orbits	2440		√	√		
Nasal Bones	2440		√	√		
Mandible (Panorex acceptable)	2440		√	√		
Temporomandibular Joints	2440		√	√		
SPINE AND PELVIS						
Cervical Spine	1240	√				
Thoracic Spine	1240	√		√		
Lumbosacral Spine	1240	√				
Cross-Table (Horizontal Beam) Lateral spine (patient recumbent)	1240	√		√		
Pelvis	1240	√				
Hip	1240	√				
Cross-Table Lateral Hip (patient recumbent)	1240	√		√		
Sacrum and/or Coccyx	1240		√	√		
Scoliosis Series	1240		√	√		
Sacroiliac Joints	1240		√	√		

	Semester Introduced	Mandatory	Elective	Eligible for Simulation	Date Completed	Competence Verified By
ABDOMEN						
Abdomen Supine (KUB)	1140	√				
Abdomen with Upright (AAS)	1140	√		√		
Abdomen Decubitus	1140		√	√		
Intravenous Urography	2540		√			
FLUOROSCOPY STUDIES- Students must select two electives from this category. Perform per site protocol.						
Upper G.I. Series (Single or Double Contrast)	2340		√			
Barium Enema (Single or Double Contrast)	2340		√			
Small Bowel Series	2340		√			
Esophagus (not swallowing dysfunction study)	2340		√			
Cystography/ Cystourethrography	2540		√			
ERCP	2340		√			
Myelography	1240		√			
Arthrography	1240		√			
Hysterosalpingogram	2540		√			
SURGICAL STUDIES						
C-Arm Procedure (requiring manipulation to obtain more than one projection)	2340	√		√		
Surgical C-Arm Procedure (requiring manipulation around a sterile field)	2340	√		√		
MOBILE STUDIES						
Chest	2340	√				
Abdomen	2340	√				
Upper or Lower Extremity	2340	√				

	Semester Introduced	Mandatory	Elective	Eligible for Simulation	Date Completed	Competence Verified By
PEDIATRICS (age 6 or younger)						
Chest Routine	2440	√		√		
Upper or Lower Extremity	2440		√	√		
Abdomen	2440		√	√		
Mobile Study	2440		√	√		
GERIATRIC (At least 65 years old and physically or cognitively impaired as a result of aging)						
Chest	1140	√				
Upper or Lower Extremity	1140	√				
Hip or Spine	1140		√			

* Trauma is considered a serious injury or shock to the body and requires modification in positioning and monitoring the patient's condition.

Students must be CPR certified and demonstrate competence in the remaining nine patient care activities as listed below. These activities should be performed on patients whenever possible but simulation is acceptable.

General Patient Care Objectives

General Patient Care	Date Completed	Competence Verified By
CPR/BLS certified		
Vital Signs – Blood Pressure		
Vital Signs – Temperature		
Vital Signs – Pulse		
Vital Signs – Respiratory		
Vital Signs – Pulse Oximetry		
Sterile and Medical Aseptic Technique		
Venipuncture		
Assisted Patient Transfer (e.g. slider board, mechanical lift, gait belt)		
Care of Patient Medical Equipment (e.g., oxygen tank, IV tubing)		

LIST OF RADIOLOGIC PROCEDURES

RADS 1140

1. Chest, routine
2. Chest, wheel chair or stretcher
3. Chest, lateral decubitus
4. Finger or Thumb
5. Hand
6. Wrist
7. Forearm
8. Elbow
9. Humerus
10. Abdomen, supine & upright
11. Decubitus abdomen
12. Toes
13. Foot
14. Ankle
15. Oascalcis
16. Leg
17. Knee w/ patella
18. Femur

RADS 1240

1. Hip
2. Pelvis
3. Shoulder
4. Clavicle
5. Scapula
6. AC joints
7. Sternoclavicular joints
8. Ribs
9. Sternum
10. Cervical spine
11. Thoracic spine
12. Lumbar spine
13. Sacrum
14. Coccyx
15. SI joints
16. Scoliosis series
17. Arthrogram
18. Myelogram
19. Portable chest
20. Portable abdomen
21. Portable orthopedic

RADS 2340

1. Soft tissue neck
2. Esophagram
3. Upper GI Series (double contrast)
4. Small bowel series
5. Barium enema series (double contrast)
6. ERCP
7. Surgery

RADS 2440

1. Skull
2. Sinuses
3. Facial bones
4. Orbits
5. Nasal bones
6. Mandible
7. Temporo Mandibular Joints
8. Trauma extremities (upper & lower)
9. Trauma hip
10. Trauma C-spine
11. Pediatric chest (< 6 years)
12. Pediatric abdomen
13. Pediatric extremities (upper & lower)
14. Pediatric portable

RADS 2540

1. Intravenous Urogram
2. Cystourethrogram
3. Hysterosalpingogram

Required competencies/simulations per semester

RADS 1120	Fall 1	- 2/0	2 total
RADS 1220	Spring 1	- 8/2	10 total
RADS 2321	Summer	- 7/3	10 total
RADS 2420	Fall 2	- 12/2	14 total
RADS 2520	Spring 2	- 12/3	15 total

Summary of competency requirements for graduation

Total competencies:	51
Mandatory competencies	36
Elective competencies	15
(Eligible Simulations)	10
Patient care competencies	10

CRITERIA FOR COMPETENCY PASS/FAIL

The Clinical Preceptor may assign competency exams to the student, or the student may request to perform a particular exam. The student must pass with an 85% including all starred areas on the competency form. Competency Form is included in this manual (see Table of Contents).

A failed competency exam indicates a lack of understanding, knowledge or skill by the student. If the student fails a comp, the student will meet with the CP to document and discuss, very specifically, the errors made by the student. The session will also include a simulation of the exam and/or a written assignment to help in understanding the exam. This assignment is under the CP's discretion based upon the reasons for the failed comp. The student should make every effort to repeat the competency exam on another patient before the end of the semester and must be done with the primary CP at the facility.

The second attempt for a particular competency exam will result in a deduction of 10% of the grade. If the exam is failed a second time a simulation of the exam and/or a written assignment will be assigned and at the discretion of the CP based on the reason for failure of the exam. The student must practice the exam three times and document the practices on the Student Tally Sheet prior to repeating the exam. The exam must be repeated with the primary CP. The CP has the right to not accept the competency if it was not performed with the CP.

If the student fails the exam for the third time, the CP and Clinical Coordinator will meet and develop an action plan to address the student's deficiencies. A Zero will be recorded for the third failed exam on the grade summary sheet.

Summary:

Failed 1st attempt	Score is not recorded on grade summary sheet Written assignment and/or simulation of the exam prior to repeat Must repeat the exam with the primary CP
Failed 2nd attempt	Score is not recorded on the grade summary sheet Written assignment and/or simulation of the exam prior to repeat Documented practice of three of the same exams on Tally Sheet prior to repeat Must repeat the exam with the primary CP 10% is deducted from the final score for the 2 nd attempt
Failed 3rd attempt	A score of zero (0) is recorded on the summary sheet Meeting with student, CP and Clinical Coordinator to develop an Action Plan

“FREE ZONE”

"Free zone" - After the required number of competencies/simulations have been completed for the semester, the student enters the "free zone." The student in the "free zone" is not penalized for failing a competency. The purpose of the free zone is to encourage the student to seek more challenging patients or exams without penalty. If the competency would have been failed, the CP will use a clinical assessment form to indicate areas where improvement is needed. Simulations are not permitted in the free zone and the attempted competency is to be performed with the primary clinical preceptor. A student is limited to three (3) exams in the "Free Zone" per semester. Successful "Free-Zone" competencies are counted toward the next semester's required competencies.

CRITERIA FOR EXAM SIMULATIONS

Students must make every attempt to perform the required number of competency examinations each semester. When the number of competencies cannot be achieved for the semester, the student may simulate eligible exams. A guide to the maximum number of competencies/simulations is listed in this manual with the “List of Radiographic Procedures.” (See Table of Contents.)

Simulations are performed at the clinical site by the primary clinical preceptor only. Simulations are performed on fellow students or other staff members. Students who perform simulations are required to demonstrate skills as similar as circumstances permit to performing the exam on an actual patient but without making an x-ray exposure.

The following list represents criteria for performing simulations.

1. The primary clinical preceptor assigns and performs simulations.
2. A student must pass the simulation with a score of 85% (26/30) including 2 points for each starred area on the “Simulated Exam” form. A “Simulated Exam” form is included in this manual. (See Table of Contents).
3. Simulations may not be attempted until the second semester of the program.
4. An exam may not be simulated until, at minimum, one semester after its introduction and simulation in Radiographic Procedures lab.
5. The consequences for a failed simulation are the same as the consequences for a failed competency. The “Criteria for Competency Pass/Fail” is included in this manual. (See Table of Contents.) In addition, failed competencies and failed simulations are counted together for a total number of failed competencies/simulations.
6. Students must review related images with the clinical preceptor before the simulation may be passed. This may be done by reviewing images from a teaching file, reviewing images in a textbook, or reviewing similar images on PACS.

CRITERIA FOR EVALUATION OF A STUDENT PERFORMING A COMPETENCY / SIMULATION

Exam Set-Up

1. Correlates requisition with the physician's order
 - a. verifies the requisition by checking it against the scanned order, checking the actual order or checking the patient's chart
 - b. if a discrepancy is found, proper action is taken
2. Set-up the radiographic room
 - a. a clean table with clean linen is evident
 - b. aseptic technique is observed
 - c. supplies needed for the exam/procedure are available prior to bringing the patient into the room (cassettes, positioning sponges, contrast agents, emesis basins, etc.)
3. Set-up the computer imaging system (HIS, RIS, CR, DR, etc.)
 - a. the correct patient is selected
 - b. the correct exam(s) is/are selected
 - c. the patient is tracked appropriately
 - d. fluoroscopic exams are set-up in the digital system correctly
4. Select technique
 - a. the correct kVp is selected
 - b. the correct mAs is selected
 - c. if using the AEC, the correct cells are selected
 - d. the correct control function is selected (wall bucky, tabletop, etc.)
5. Select the correct cassette size/IR/grid
 - a. the smallest IR, consistent with the projection is used
 - b. the IR is properly oriented
 - c. a grid is used in accordance with current practice standards

Patient Interaction

1. Verify patient identification
 - a. uses 2 or 3 verbal identifiers in accordance with clinical site policy
 - b. uses the patient's name throughout the exam
2. Obtains accurate history/assessment
 - a. asks appropriate questions related to the exam/procedure being done
 - b. accurately determines the patients to move, stand, walk, etc.
 - c. obtains patient information in accordance with HIPAA standards
 - d. obtains vital signs, if appropriate
 - e. appropriate terminology is used when recording hx/assessment
 - f. hx/assessment information is documented correctly
3. Gown the patient appropriately for the exam
 - a. able to correctly instruct the patient to change into the proper hospital attire
 - b. has the appropriate hospital attire in terms of type and size
 - c. makes the appropriate decision about changing into hospital attire in relation to the patient's condition
 - d. does not allow the patient to walk or stand barefooted in the x-ray room
4. Remove extraneous items
 - a. correctly instructs the patient to remove jewelry, bobby pins, hair pieces, dental appliances, etc. prior to the start of the exam
 - b. ensures that the patient actually HAS removed jewelry, bobby pins, hair pieces, dental appliances, etc. prior to the start of the exam

5. Provides comfort/privacy to the patient
 - a. escorts the patient into the room
 - b. assists the patient onto the x-ray table
 - c. assists the patient when changing positions
 - d. keeps the patient clothed or draped for modesty
 - e. manipulates equipment so as not to cause avoidable discomfort to the patient
 - f. demonstrates compassion and empathy
 - g. escorts the patient out of the room and/or department
6. Provides explanation/answers about the exam/procedure
 - a. introduces self to patient
 - b. uses appropriate volume, tone and rate of speech
 - c. age-appropriate communication is demonstrated
 - d. communication method is modified based on patient condition, ESL, etc.
 - e. non-verbal communication is appropriate
 - f. the procedure is explained in logical, sequential manner
 - g. the procedure is explained correctly and completely
7. Maintains patient safety
 - a. observes patient for a change in medical condition
 - b. takes proper action in an emergency situation
 - c. follows fall-risk precautions
 - d. uses safety features on a cart or wheelchair appropriately
 - e. in-patient restraints are used re-applied appropriately (bedrails up, posey, extremity restraints etc.)
 - f. instruction to patient is appropriately given to ensure patient safety
 - g. able to get the patient on and off the x-ray table appropriately
 - h. maintains patient safety during a change in table position
 - i. properly initiates a hospital code when a situation arises
 - j. provides proper supervision of patient based on patient condition
8. Practice universal precautions
 - a. uses proper hand hygiene techniques
 - b. wears appropriate protective apparel in accordance to patient condition/isolation status
 - c. disinfects surfaces, cassettes, equipment, etc.
 - d. disposes of contaminated material properly including sharps

Positioning Skills

1. Uses effective communication to achieve patient cooperation
 - a. volume and rate are appropriate
 - b. directions are clearly stated
 - c. directions are given in a step-by-step format
 - d. pantomime is used, if necessary
 - e. allows patient to move unassisted when appropriate
 - f. communication method matches patient's ability to understand the communication
2. Place the patient in the correct body position
 - a. knows the routine projections for the exam/procedure
 - b. the patient is positioned correctly, i.e. supine, prone, seated, etc.
 - c. body part is positioned correctly to demonstrate the required evaluation criteria

3. Uses anatomic landmarks correctly
 - a. the correct landmark is used
 - b. alternative landmarks are used if patient conditions necessitate it
 - c. touches the patient appropriately
4. Apply immobilization devices as needed
 - a. immobilization devices are in the room prior to bringing the patient in
 - b. an appropriate immobilization device is used
 - c. immobilization device is used correctly
 - d. aseptic techniques are applied if using an immobilization device
5. Breathing instructions
 - a. breathing instructions are explained to the patient in a way to ensure the patient understands
 - b. breathing instructions are correct
 - c. exposure is timed appropriately with breathing instructions
 - d. patient is observed for compliance
6. Perform positioning efficiently
 - a. the exam is performed in a logical manner with regard to patient condition
 - b. steps in performing the exam are not repeatedly re-checked prior to making the exposure
 - c. a written plan is devised for multiple exams on one patient
 - d. effectively multitasks in the course of the exam
 - e. adapts to an unexpected circumstance or occurrence

Use of Equipment

1. Manipulate the equipment efficiently
 - a. the correct release is used to move the x-ray tube
 - b. the tube is detented correctly
 - c. once the tube is moved into place, it does not require repositioning
 - d. once collimation is performed, the bucky tray is not pulled out
2. Angle the central ray
 - a. the correct angle is selected
 - b. the correct direction is selected
 - c. the SID is adjusted if necessary
3. Center the central ray properly
 - a. the correct body landmark is used and the tube is moved accordingly
 - b. both planes, perpendicular to each other, are used to determine CR placement
4. Align the tube, image receptor and area of interest accurately
 - a. align the tube with the IR
 - b. align the area of interest to the CR
 - c. the above steps are performed and not repeatedly rechecked

Markers

1. Choose the correct anatomic marker
 - a. the correct marker is available prior to the start of the exam
 - b. the marker, R or L, includes student identification
 - c. other radiographic markers are used correctly in accordance with exam and department protocol
2. Place the correct anatomic marker within the collimated light field
 - a. the correct marker is used in correlation to the body part
 - b. the marker is placed so as not to be in area of interest

Shielding

1. Ascertain the probability of pregnancy
 - a. the female patient is asked in accordance to department age specifics
 - b. the information is documented accurately
 - c. patient confidentiality is maintained
2. Collimate the beam properly
 - a. positive beam limitation device is activated and used, if appropriate
 - b. if PBL is not used, the field size does not exceed IR size
3. Shield the patient correctly
 - a. a shield is available prior to the start of the exam
 - b. the shield is placed on the susceptible body structure
 - c. the shield does not obscure necessary anatomy
4. Practice operator protection
 - a. anyone not behind the control booth is wearing a lead apron during an x-ray exposure
 - b. the student wears a lead apron when making the exposure on portable exams
 - c. if it is necessary to assist or hold the patient (as a last resort), lead gloves are worn

Exam Completion

1. Orient/display image correctly
 - a. if using film, the film is hung on the view box correctly, in accordance with department protocol or anatomically
 - b. digital images are oriented on the monitor, in accordance with department protocol or anatomically
2. Verify if the correct lead marker is visible on the image
 - a. the correct marker with student identification is visible on the image/film
 - b. the marker is not in the anatomy of interest
3. Identify any anatomical structure on the image
 - a. identifies the projection demonstrated
 - b. identifies anatomical structures of interest
 - c. can determine “parts” on anatomical structures
4. Use evaluation criteria to judge the image
 - a. identifies evaluation criteria for the particular projection
 - b. determines if evaluation criteria is met
 - c. determines if there is unexpected distortion (motion, magnification, etc.)
 - d. determines if there is expected detail present
5. Determine if collimation and/or shielding is visible on the image
 - a. identifies if collimation is adequate
 - b. evaluates if image visibility can be improved by improved collimation
6. Check exposure index (or demonstrate correct technique for film/screen systems)
 - a. film – density is adequate so anatomy of interest is visible
- if not, the correct adjustment is made before the repeat exposure
 - b. digital image – exposure indicator is within acceptable ranges
- if not, the correct adjustment is made before the repeat exposure
 - c. scale of contrast is consistent with current standards
7. Correctly apply annotations when necessary
 - a. film – uses stickers or other approved method to annotate necessary information
 - b. information on film is correct
 - c. can use the computer to annotate necessary information
 - d. annotated information is correct

8. Submit/send the exam for radiologist interpretation
 - a. films and appropriate paperwork are submitted correctly
 - b. films and appropriate paperwork are submitted in a timely manner
 - c. images are sent to the radiologist following department protocol
 - d. wet readings are followed-up according to department protocol
9. Discharge patient
 - a. discharge information is explained
 - b. patient is helped off table
 - c. patient is helped onto a cart or into wheelchair or escorted out of the room/department
 - d. room clean-up / organization was completed and appropriate
10. Display professionalism throughout entire procedure
 - a. patient was referred to by name throughout the exam
 - b. flexibility / adaptability was evident, if needed
 - c. composure was maintained throughout the exam, regardless of circumstances
 - d. conversation / comments to the patient were appropriate throughout the exam
 - e. accepts constructive criticism
 - f. modifications are made in correlation with suggestions/feedback

Repeat Exposures

1. Did the student recognize the need for a repeat?
 - a. recognizes that evaluation criteria was not met
 - b. determines if the unmet criteria can be corrected vs. patient condition/pathology
 - c. can determine the appropriate corrective action
 - d. appropriately determines when a repeat exposure is not beneficial
2. Was the student able to correct the problem with minimal or no assistance?
3. Did the student perform the repeat exposure under direct supervision?
4. Did the student have their tally sheet signed for the repeat exposure?

MULTIPLE EXAM STUDY GRADING GUIDELINES

Students will perform a multiple exam study and their site clinical preceptor will complete the multiple exam study rubric. The following guidelines will be used when assessing the student during the multiple-exam study. A multiple-exam study is defined as three or more exams on the same patient.

Exam Organization – Suggested student requirements

Print the requisitions

Write a list of the correct names of all of the required projections

Spell the projections correctly

Write the order that the projections will be performed

Write correct manual techniques beside the projections that require manual techniques

Assemble cassettes, grids, immobilization devices, contrast supplies, markers, sandbags, shielding, etc.

Correctly mix and prepare contrast material

Place cassette in the wallboard, bucky, or tabletop for initial projection

Detent tube correctly

Have the footstool in the proper position
Set initial technical factors or choose correct AEC settings
Set up fluoroscopy equipment and digital fluoroscopy annotations
Track patient through clinical site HIS/RIS

Patient Preparation – Suggested student requirements

Verbally verify patient name and date of birth
Correlate patient information with the requisition and wrist band
Check physician order and correlate with the radiology requisition
Ask the patient if they have followed contrast preparation
Confirm and document that female child-bearing patients are not pregnant
Use proper medical terminology and questioning techniques to obtain patient history
Makes eye contact while interacting with the patient
Explain complex exams in the correct order to the patient
Spell clinical signs and symptoms correctly
Document all relevant clinical signs and symptoms
Instruct the patient to remove all required garments
Instruct the patient to remove all extraneous items
Help the patient to achieve correct gowning through effective communication

Exam Execution – Suggested student requirements

Requires little, if any, input from the R.T. to perform the exam
Provides direction or delegates duties to other staff if needed
Anticipates tasks in advance to complete the study
Stays focused and on-track during the exam
Follows the written plan
Makes a natural progression from wall board to table bucky without excessive patient movement
Performs all non-contrasted exams before contrasted exams
Performs scout/survey images when required
Performs repeat images correctly
Use the correct volume and tone with the patient, family and/or other staff members during the exam
Remembers to change technique and image receptors prior to making exposures
Have manual techniques written and available to set
Correctly sets manual techniques
Correctly modifies technique for repeat exposures
Does not double-expose images
Differentiates between exposed and unexposed cassettes
Assigns the correct patient information to the exam
Processes images under the correct exam protocols, accession numbers, etc.
Puts the correct markers on the correct side of the body
Puts the correct markers in the field of view but out of anatomy
Collimates to body parts
Uses the correct size image receptor
Uses the correct SID

Exam Evaluation (exam evaluation must be done without prompting from the evaluator)

Display the images correctly (flip and rotate)
Review the exams in an organized manner

Verify that all projections have been completed
Evaluate the visibility of radiographic markers
Place the proper annotation on the images if necessary
Recognize improper collimation
Review exposure index numbers
Distinguish overexposure and underexposure relative to exposure index numbers
Evaluate images using the proper criteria
Justify the need to perform repeat images
Navigate efficiently within HIS/RIS system (patient notes, patient tracking, fluoro/contrast information, etc.)

Exam Modification (Used only if the student had to modify their plan for reasons beyond their control)

Maintains leadership abilities
Construct one or more options to the original plan
Eliminate options that will not work
Choose the option that completes the exam most efficiently
Performs exam modifications in an acceptable amount of time
Evaluates the effectiveness of their modification

STUDENT CLINICAL ASSIGNMENTS

CLINICAL OBJECTIVES

Objectives are designed to guide students through learning activities that will develop the required skills and knowledge necessary to perform examinations in the radiology department. Students are required to complete objectives for each type of clinical rotation.

Basic objectives must be completed for ancillary areas when the rotation to that area has been completed. Objectives pertaining to diagnostic imaging areas require multiple rotations to that area to complete them. In addition, these objectives are progressive with the first objective for that area building basic skills and the second objective building upon the basic skills and requiring advanced skills. Students generally complete the first objective for an area prior to starting the second objective, however students are encouraged to be aware of all objectives for any given area (first and second) in the event the opportunity arises to complete an advanced objective before the first objectives are completed.

Objectives have also been designed for special modality rotations. The student is required to complete all objectives by the time indicated on the form. Please see a clinical preceptor if there is a problem completing the objectives. Objective forms are located in the documents section of Trajecsys.

SECOND SHIFT/TRAUMA REFLECTION PAPER

Instructions:

Second shift rotations begin in Semester (RADS 2321) and continue Fall 2 (RADS 2420) and Spring 2 (RADS 2520). Students are scheduled on second shift to gain insight into the differences between radiographer duties as they vary from shift to shift. Additionally, the student to exam ratio is lower which in most cases enables the student on second shift to gain additional experience performing radiologic examinations.

For the first time a student rotates through second shift/trauma rotation, (summer semester) students will complete a second shift/trauma reflection paper and turn it in to the clinical preceptor. Failure to do so could result in an Incomplete grade for the semester with a possible additional rotation on second shift to help complete the assignment.

Paper guidelines:

Typed (double-spaced, 12-point font)

All paragraphs are at least 5 sentences long

Provide a printed hard copy to the clinical preceptor.

Write about your own thoughts and experiences about second shift/trauma

Four paragraph topics are required in this order:

1. Note differences in work culture/job duties of a radiographer between first and second shifts. Explain the differences you experienced between a first and second shift clinical rotation.
2. Discuss the most difficult exam that you performed on your rotation and describe why it was difficult for you. If you did not perform an exam discuss the most difficult exam your supervising technologist performed.
3. Describe methods radiographers used to adapt/modify exams. This should be methods you haven't seen or tried before. This can also include techniques in patient communication and patient care that helped the radiographer complete the exam in a timely and efficient manner.
4. Describe a few various exams that you assist/perform that left an impression on you. (HIPAA). If you completed a competency on second shift describe that exam.

PROTOCOL FOR SPECIAL AREA ROTATIONS
(Advanced Imaging Modalities)

Students will complete rotations through advanced imaging modalities in the second year of the program. These areas include:

1 or 2 day observations

- *Ultrasound (US)
- *Nuclear Medicine (NM)
- *Radiation Therapy (TH)
- *Magnetic Resonance Imaging (MRI)

1 clinical week or longer

- *Surgery
 - *Computed Tomography (CT)
- Nationwide Children's Hospital (NCH) – Pediatrics

Written Assignments

The advanced imaging modalities listed above with an asterisk (*) require a 1-page, typed paper to be completed prior to the start of the rotation. The purpose of the written assignment is to provide the student with some basic background information about the imaging modality prior to their assignment in that area. The student is required to research the modality using Merrill's Atlas of Radiographic Positioning and Procedures, or any other reliable source. The written assignment must meet the following criteria:

- 1-page minimum, typed with 12-point font.

- Describe the clinical applications of the modality. (What medical use does it have?)
- Describe the basic principles of how the modality works. (i.e., contrast, equipment, scanning protocols, etc.)
- Printed and handed in to the CI at the rotation site.

Scheduling adjustment and clinical capacity

If the student fails to complete the prerequisite written assignment prior to the start of the advanced imaging rotation, the student will be reassigned to a diagnostic X-ray room for the day. If a diagnostic room is unavailable due to maximum student capacity, the student will be sent home. Any missed time in an advanced modality will be rescheduled. Due to schedule restrictions in advanced areas students may need to reschedule the advanced imaging modality during college breaks.

Students scheduled in advanced imaging modalities complete the entire clinical day in that modality. If the cases in the advanced imaging modality are not sufficient enough for the student to complete the mandatory 7-hour clinical day, the students return to a radiographic room if there is a room available and the mandatory 1:1 student to clinical staff ratio is followed and the site capacity is not increased. However, if there is no radiography room for the student to return to, the clinical preceptor may assign the student to a different advanced imaging modality if no other student is in that modality. If the clinical preceptor is unable to assign the student to another modality or assign the student to a radiographic room, the student's clinical day is over and the student is permitted to leave clinical for the day. No make-up time will be required.

CLINICAL COURSE OUTCOMES

The following pages include clinical course outcomes for each semester. Students should refer to the clinical course outcomes to help organize their learning for each semester and throughout the program. Clinical days and hours are listed on each outcome. In addition, the clinical competencies and specific clinical objectives are included in the outcomes to guide the student in performing examinations and getting signed off of clinical objectives.

The program faculty and clinical preceptors reserve the right to change or modify clinical assignments in order to help the student meet the clinical course outcomes.

Clinical Practicum 1
RADS 1120
Fall 1

Course Outcomes:

1. Complete the clinical orientation process
2. Use appropriate and effective written, oral and nonverbal communication with patients, the public and members of the health care team in the clinical setting
3. Perform medical imaging procedures under the appropriate level of supervision
4. Provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity or culture
5. Demonstrate competency in the principles of radiation protection standards
6. Demonstrate knowledge of correct positioning skills on patients
7. Operate medical imaging equipment correctly
8. Provide patient safety
9. Enter data correctly into the clinical facility's HIS/RIS system
10. Select technical factors to produce quality diagnostic images with the lowest radiation exposure possible
See the course syllabus for methods of assessment.
11. Evaluate images for appropriate anatomy, image quality and patient identification
12. Integrate the appropriate personal and professional values into clinical practice.

Course assignments for the student:

Complete an orientation to the radiology program/clinical education

Complete an MRI safety orientation

Complete a clinical site orientation/safety objective

Begin forming a clinical notebook

Maintain clinical records (time log, tally sheet)

Assist, perform and observe radiographic procedures in accordance with RADS courses

Complete 2 competencies

Complete the course with a grade of 85% or higher

Complete the required number of clinical hours (see below)

Objectives to Complete:

Transport #1

Radiographic Equipment Manipulation #1

Objectives to Begin:

Desk

Routine Exams #1

Radiographic Equipment Digital #2

Portables #1

Clinical Schedule:

Fifteen weeks

Tuesdays 7 hours (7.5 minus lunch) or

Fridays 7 hours (7.5 minus lunch)

Total Hours 105 hours minus college holidays and closings

Clinical Practicum 2
RADS 1220
Spring 1

Course Outcomes:

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
2. Perform medical imaging procedures under the appropriate level of supervision
3. Provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity or culture
4. Demonstrate competency in the principles of radiation protection standards
5. Demonstrate knowledge of correct positioning skills on patients
6. Operate medical imaging equipment correctly
7. Provide patient safety
8. Enter data correctly into the clinical facility's HIS/RIS system
9. Select technical factors to produce quality diagnostic images with the lowest radiation exposure possible.
10. Evaluate images for appropriate anatomy, image quality and patient identification
11. Integrate the appropriate personal and professional values into clinical practice.

Course assignments for the student:

Observe/assist/perform radiographic procedures in accordance with RADS courses

Perform 10 competencies/simulations (8/2)

Complete daily technologist evaluations

Maintain clinical records

Continue to build a clinical notebook

Check radiation exposure reports and maintain radiation exposure log

Complete the course with a grade of 85% or higher

Complete the required number of clinical hours (see below)

Objectives to Complete:

Equipment Digital #2

Desk

Objectives to Begin:

Transport #2

Portable #1

Surgery #1

Continue to work on routine #1 and routine #2

Special Contrast Exams objective

Clinical Schedule

15 weeks

Tuesdays 7 hours (7.5 minus lunch) or

Thursdays 7 hours (7.5 minus lunch)

Total hours 105 hours minus college holidays and closings

Clinical Practicum 3 RADS 2321 Summer

Course Outcomes:

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
2. Perform medical imaging procedures under the appropriate level of supervision
3. Provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity or culture
4. Demonstrate competency in the principles of radiation protection standards
5. Demonstrate knowledge of correct positioning skills on patients
6. Operate medical imaging equipment correctly
7. Provide patient safety
8. Enter data correctly into the clinical facility's HIS/RIS system
9. Select technical factors to produce quality diagnostic images with the lowest radiation exposure possible.
10. Evaluate images for appropriate anatomy, image quality and patient identification
11. Integrate the appropriate personal and professional values into clinical practice.

Course assignments for the student:

Observe/assist/perform radiographic procedures in accordance with RADS courses

Perform 10 competencies/simulations (7/3)

Complete daily technologist evaluations

Maintain clinical records

Continue to build clinical notebook

Check radiation exposure reports and maintain radiation exposure log

Complete a journal following an afternoon rotation and submit to clinical preceptor

Complete the course with a grade of 85% or higher

Complete the required number of clinical hours (see below)

Objectives to Complete:

Portables #1

Transport #2

Data Management/Charge Tech

Surgery #1

Objectives to Begin:

Fluoroscopy #1

Surgery #2

Portables #2

Surgery #1

Geriatric

Orthopaedics

Routine Exam #2

2nd Shift/Trauma

Special Contrast Exams objective

Clinical Schedule

7 weeks

Thursday and Friday 16 hours (8.5 minus lunch)

x7 weeks

112 hours minus college holidays and closings

Clinical Practicum 4
RADS 2420
Fall 2

Course Outcomes:

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
2. Perform medical imaging procedures under the appropriate level of supervision
3. Provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity or culture
4. Demonstrate competency in the principles of radiation protection standards
5. Demonstrate knowledge of correct positioning skills on patients
6. Operate medical imaging equipment correctly
7. Provide patient safety
8. Enter data correctly into the clinical facility's HIS/RIS system
9. Select technical factors to produce quality diagnostic images with the lowest radiation exposure possible.
10. Evaluate images for appropriate anatomy, image quality and patient identification
11. Integrate the appropriate personal and professional values into clinical practice.

Course assignments for the student:

Assist/perform radiographic procedures in accordance with RADS courses

Perform 14 competencies/simulations (12/2)

Complete daily technologist evaluations

Maintain clinical records

Check radiation exposure reports and maintain radiation exposure log

Complete CT Scanning and MRI rotation and the required preliminary paper

Continue to build a clinical notebook

Complete the course with a grade of 85% or higher

Complete the required number of clinical hours (see below)

Objectives to Complete:

Fluoroscopy #1

Objectives to Begin/Continue:

Routine Exams #2

Pediatrics

Geriatrics

Orthopedrics

Surgery #2

Portables #2

Fluoroscopy #2

Computed Tomography #1

Special Contrast Exams objective

Clinical Schedule

15 weeks

Monday and Wednesday 14 hours (7.5 each day minus lunch)

x 15 weeks

210 hours minus college holidays and closings

Clinical Practicum 5
RADS 2520
Spring 2

Course Outcomes:

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
2. Perform medical imaging procedures under the appropriate level of supervision
3. Provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity or culture
4. Demonstrate competency in the principles of radiation protection standards
5. Demonstrate knowledge of correct positioning skills on patients
6. Operate medical imaging equipment correctly
7. Provide patient safety
8. Enter data correctly into the clinical facility's HIS/RIS system
9. Select technical factors to produce quality diagnostic images with the lowest radiation exposure possible.
10. Evaluate images for appropriate anatomy, image quality and patient identification
11. Integrate the appropriate personal and professional values into clinical practice.

Course assignments for the student:

Perform radiographic procedures in accordance with RADS courses

Perform 15 competencies (12/3)

Complete 10 patient care electives

Complete daily technologist evaluations

Maintain clinical records

Complete Special area rotations and objectives

Check radiation exposure reports and maintain radiation exposure log

Continue to build a clinical notebook

Complete the course with a grade of 85% or higher

Complete the required number of clinical hours (see below)

Objectives to Complete:

Routine Exams #2

Pediatrics

Geriatrics

Orthopedrics

Surgery #2

Portables #2

Fluoroscopy #2

Computed Tomography #1

Special Contrast Exams objective

Clinical Schedule

15 weeks

Monday, Wednesday, Friday

21 hours (7.5 hours each day minus lunch)

x 15 weeks

315 hours minus college holidays and closings

SELF-EVALUATION

At the end of the semester the student may be asked to fill out a self-evaluation. The student and the clinical preceptor will then review the form together. This should help the student pinpoint strengths and weaknesses. The student can work on weaknesses and set new goals for the next semester. At the end of the semester this form will be reviewed to see if goals were accomplished and a new form will be filled out identifying goals for the subsequent semesters.

Any goals not met should be included in the subsequent semesters along with at least two new goals.

Self-evaluation will be completed by student on Trajecsys.

STUDENT EVALUATION OF CLINICAL ROTATION

Students will be given the opportunity to evaluate their clinical rotations throughout the semester. These evaluations are very important as they provide information concerning the clinical experience.

These evaluations will allow the clinical coordinator to assess the quality of the clinical education supervised by the hospital staff and clinical preceptor.

These evaluations will help the program faculty and clinical preceptors plan to improve the rotations for successive students.

Student Evaluation of Clinical Education Center 1st yr. _____ 2nd yr. _____

Before completing this form consider this question. "Did I make an honest effort to take advantage of the educational opportunities available during this clinical affiliation?"

All results are typed into a cumulative total so that you cannot be personally identified. Honest and candid answers will be most helpful. Please use reverse side to make any comments.

Radiographers at the Clinical Education Center:	Strongly	Agree	Neutral	Disagree	Strongly Disagree
	4	3	2	1	0
1. recognize that my role was primarily to learn with the resulting service being secondary in nature.					
2. encourage and answer my questions.					
3. point out alternative methods for me to accomplish a task when necessary.					
4. permit me to correct my own mistakes unless a repeat is the result.					
5. allow me to do things on my own as time permits based on workload.					
6. adequately supervises radiography procedures performed by students.					
My Clinical Preceptor:					
1. recognizes that my role was primarily to learn with the resulting service being secondary in nature.					
2. provides site specific instruction.					
3. points out alternative methods for me to accomplish a task when necessary.					
4. permits me to correct my own mistakes unless a repeat is the result.					
5. demonstrates problem-solving skills.					
6. assists me in achieving personal goals.					
7. acts as a positive role model for students.					
8. provides adequate supervision for students.					
9. is knowledgeable of program goals, objectives and evaluations.					

LAST WORD

The program faculty at North Central State College as well as the clinical education preceptors hope that this document will help you. Please become familiar with the information. If you are unsure of anything, ask an instructor!

Your success in this program depends on you alone. Students must be motivated to study constantly and be open to learning something new every day. Students must actively seek out new bits of information by reading and asking questions.

The faculty and instructors are here to help you in any way possible, but you must want to learn and excel.

GOOD LUCK!

NORTH CENTRAL STATE COLLEGE
ACKNOWLEDGMENT AND CONSENT FORM

I hereby acknowledge that I have received a copy of the Student Policy & Procedure Manual for Radiological Sciences. I have read the manual and consulted with an instructor about any questions I might have. I agree to follow all the policies and procedures contained in the handbook. In addition, the language of this manual is subject to change without notice. By initialing below, I agree to be bound by any changes to the manual irrespective of whether the Program provides me with notice of those changes. I also acknowledge my responsibility to review and abide by other applicable policies, codes, and procedures of the College including but not limited to the Student Code of Conduct.

Initials _____

PREGNANCY POLICY

I have read the pregnancy policy included in this manual (see Table of Contents) and understand that there is a maximum amount of radiation I can receive. I may choose to inform the Program Director, in writing, if I become pregnant while in the Radiological Sciences program.

Initials _____

HEALTH CARE POLICY

The undersigned, being enrolled as a student in the Radiologic Sciences Program, and recognizing that he or she will have contact with hospital patients, blood and other bodily fluids while in various clinical courses, does hereby consent to involvement in those clinical courses and does further acknowledge that such contact requires precautions to avoid the possible contracting, among others, of:

1. Acquired Immune Deficiency Syndrome (AIDS) caused by infection with a virus known as "HIV." AIDS renders the human immune system incapable of fighting off certain fatal illnesses.
2. Hepatitis B, or serum hepatitis, is caused by the hepatitis virus (HBV). In some cases, this disease may lead to severe liver damage. A vaccination is available and is recommended for high risk groups including medical personnel exposed to blood and blood products.

While infections from either of the above viruses are unusual, there are risks in a health care setting which far exceed those in other work places. It is, therefore, necessary that radiology students and others who have clinical contact with patients, blood or other body fluids of patients, be advised of appropriate procedures and precautions and urged to follow them.

The undersigned acknowledges receipt of these procedures and precautions as are and as specifically contained in this manual Section - I. (Health Care Policy, see Table of Contents.)

Initials _____

SAFE OPERATING PROCEDURES

I have been instructed on the safe operating procedures of the college lab and portable lab included in this manual (see Table of Contents), and I understand if I do not follow these procedures, disciplinary action will be taken

Initials _____

Date _____

Student Signature

The student may print a signed copy of this document from Trajecsyst. The original signed document will be stored on Trajecsyst.

NORTH CENTRAL STATE COLLEGE

PROFESSIONAL EXPERIENCE ACKNOWLEDGMENT
(Health Related Program or Major)

The undersigned student acknowledges and agrees that:

1. He or she has undertaken clinical/practicum/directed practice at a site (or sites) assigned by the College during the student's enrollment at North Central State College, and that this experience is a requirement of the program.
2.
 - a. The student IS NOT covered under worker's compensation attributable to North Central State College on account of the program or the experience.
 - b. The student IS NOT covered by medical insurance attributable to North Central State College on account of the program or the experience.
3. North Central State College makes no other representations of any kind involving the experience.

Signature_____ Date_____

Printed Name_____ Student ID: _____