NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

PART 2

CLINICAL EDUCATION
(Competency-based Learning)

2020-2021

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PART 2

CLINICAL INSTRUCTIONAL ORGANIZATION

OVERVIEW

Students' clinical and academic learning experiences consist of no more than forty weekly contact hours divided between classroom instruction, laboratory demonstration, and clinical application. In the first year clinical assignments are scheduled during weekdays (Monday through Friday). In the second year, assignments may include rotations on weekends, evenings and nights. All assignments are validated through the educational experiences they afford the students. The sequencing of these assignments is carefully coordinated with the classroom portion of the curriculum to assure timely clinical application and reinforcement of newly acquired knowledge.

Clinical sites are:

1. Advocate Good Samaritan Hospital (Downers Grove, IL)
2. Advocate Lutheran General Hospital (Park Ridge)
3. Advocate Illinois Masonic Medical Center (Chicago)
4. Advocate Medical Group Beverly (Beverly, IL)
5. Advocate Medical Group Evergreen, (Chicago, IL)
6. Advocate Medical Group Irving and Western (Chicago)
7. Advocate Medical Group Nesset Pavilion (Park Ridge, IL)
8. Advocate Medical Group Oak Park (Oak Park, IL)
9. Advocate Medical Group South Holland (South Holland, IL)
10. Advocate Medical Group Sykes (Chicago, IL)
11. Advocate Trinity Hospital (Chicago, IL)
12. Rush University Medical Center (Chicago, IL)
13. Loyola University Medical Center (Maywood, IL)
14. Ann & Robert H. Lurie Children's Hospital (Chicago, IL)
15. Ann & Robert H. Lurie Children's Hospital of Chicago-Outpatient Center Westchester
16. Ann & Robert H. Lurie Children's Hospital of Chicago-Outpatient Clinic New Lenox

The program reserves the right to add/omit/change clinical education centers to support its educational activities. Under the direction and supervision of the clinical coordinator(s), clinical instructors, other department supervisors and staff, students rotate through assigned positions and areas. Clinical assignments are scheduled primarily during weekdays. Other assignments may include limited rotations on weekends, evenings and nights. The rotations are sequenced with classroom study and phase of clinical education. The duration and frequency of assignments is determined by the student's level of proficiency and need for reinforcement of acquired skills.

THE STUDENT AS A GUEST/VISITOR OF THE CLINICAL EDUCATION CENTER

Students are guests or visitors of the clinical education centers to which they are assigned. Students are responsible for:

1. Reporting to their clinical education centers on time and staying in their assigned areas
2. Following the policies, standards, and practices of their clinical sites and the clinical education guidelines established by the College and program.
3. Obtaining medical care at their own expense for any injuries that may occur at their clinical sites.
4. His/her own transportation to and from their clinical education centers.

The terms of the affiliation agreements include the right of the clinical education center to bar a student from the buildings and grounds of the clinical site given just cause. The College and program do not have the authority to overrule a clinical education center's decision to accept or refuse a student's participation at their location.

In a situation where a student is refused clinical participation at a clinical site, i.e., a student is suspended and wishes to resume his clinical assignments and no other placement for the student is possible at other affiliates, the student will be withdrawn from the program.

GLOSSARY OF TERMS

ALARA
As defined by the U.S. NRC in Title 10, Section 20.1003, of the Code of Federal Regulations (10 CFR 20.1003), ALARA is an acronym for "as low as (is) reasonably achievable," which means making every reasonable effort to maintain exposures to ionizing radiation as far below the dose limits as practical, consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed materials in the public interest. (https://www.nrc.gov/reading-rm/basic-ref/glossary/alara.html)

Category
A series of related radiographic examinations that identify an area of the human body, i.e., upper extremity, abdomen. Categories contain units.

Units
A series of radiographic examinations comprising the clinical instructional content for a school term.

Simulation (Laboratory Competencies)
Performance of a radiographic examination on a live subject (not a patient) up to the point of exposure or on a body phantom which may include radiographic exposure. Used in laboratory instruction for the purpose of demonstrating, practicing and evaluation.

Laboratory
Program lab and radiographic rooms in the Diagnostic Imaging Department for the purpose of laboratory instruction, practice and evaluation.

Qualified Radiographer
A currently licensed and credentialed radiographer. A qualified radiographer documenting orientation to the parameters of clinical supervision, instruction and evaluation.

Direct Supervision
Student supervision by a qualified practitioner that reviews the procedure in relation to the student's achievement, evaluates the condition of the patient in relation to the student's knowledge, is present during the procedure, and reviews and approves the procedure. A qualified radiographer must provide direct supervision during all repeated exposures and at all surgical, ER/trauma, portable assignments.

Indirect Supervision
Supervision provided by a qualified practitioner 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.

Laboratory Instruction
A. Instructors: Instruct, demonstrate
B. Student: Practice, examine (Laboratory Competency)

Competency Evaluation (Clinical Competency)
The procedure by which a student's performance and the resulting image is evaluated. The minimum acceptable level of competency is 80%.

Radiographic Examination/Procedure
A series of radiographic exposures of an anatomical part sufficient to permit diagnostic evaluation of a part.

Clinical Participation
Application of classroom and laboratory knowledge through observation, assistance and performance of radiographic examinations and related procedures.

Competency
The ability to function within a realm of limited supervision and assume those tasks and responsibilities as set forth in course and clinical objectives.

Clinical Assignments/Rotations/Sites
Radiographic areas or rooms to which the student is assigned for clinical participation and competency performance.

Spot Check/RE-Comp/Exit Competency Evaluations/Exams
Clinical evaluations which may be performed at any time/on the spot throughout the clinical practicum to assess that students have retained a particular competency. Exams which may be performed as a graduation requirement.

Routine (Mandatory) Competency Evaluations/Exams
Specific number of x-ray exams performed for completion of the Program. Performed throughout Clinical Courses 1-6, specific number identified in each course syllabus. These exams are the most frequently requested radiographic procedures.

Required Elective Competency Evaluations/Exams
Specific number of x-ray exams performed for completion of the Program. Performed throughout Clinical Courses, specific number identified in each course syllabus. These exams are the least frequently requested radiographic procedures.

Record of Performed Clinical Exams (Stats)
Students maintain a record of the radiographic examinations that they observe, assist with and perform.

Clinical Instructor (CI)
Individual who supervises and instructs students in clinical assignment. Students report directly to identified CI(s). Supervises and monitors students' clinical site activities and behaviors. Identifies and responds to any matters of concern, i.e. students' behaviors, clinical progress. Addresses matters of concern to the coordinator and/or director by telephone, email, scheduled and unscheduled meetings, as necessary. Maintains records as appropriate, i.e. attendance, consultations, etc. Keeps DI department personnel, i.e. staff and supervisors up-dated on Program policies and practices that must be followed to assure appropriate clinical supervision

Clinical Coordinator (CC)
Individual(s) who oversee the clinical competency plan of the program. Develops and implements clinical competency plan, i.e., clinical assignment schedules, clinical course syllabi and competency evaluations. Maintains clinical records and monitors clinical progress of students. Provides guidance, direction and support to CIs, as necessary. Makes scheduled visits to clinical sites. May perform clinical competency evaluations of students at clinical sites. Performs evaluations, participates in consultations with clinical

instructor and director through scheduled meetings and as needed. Keeps Director informed of students' clinical progress and related matters. Authority supersedes Clinical Instructor.

RADIATION SAFETY

The program assures the health and safety of its students and patients in the communities we serve by following the published policies established by the program and the clinical sites. The ultimate goal is to keep radiation exposures to the students and to the patients they serve at the clinical sites at a level that is As Low As Reasonably Possible (ALARA). All exposures using ionizing radiation are to be made only upon the request of a physician's orders. (Any exposures that are made during the laboratory setting are to be made on phantom models only). The principle of ALARA is reinforced throughout the student's educational and clinical experience.

Students are instructed to apply proper gonadal shielding and collimation whenever applicable. Also, when working on digital radiographic equipment students are not to use "cropping" in place of proper collimation, as this is not a beam limiting device. Students are to apply proper exposure techniques and be aware the effects of "dose creep" in an effort to reduce radiation exposure. If a student fails to adhere to any of these radiation safety methods while performing a clinical competency the student will fail that given competency and be required to repeat the competency. At all times all students must be accompanied by a registered technologist upon repeating a radiograph or performing mobile radiography. During radiographic exposure for portable radiographic examinations, the student radiographer must always wear a full-leaded apron. The student must maintain the maximum possible distance (minimally 6 feet) from the X-Ray tube during the exposure.

Each student will be issued Optically Stimulated Luminescence Dosimeter monitors (OSL). They are to be worn at all times while in the clinical setting and are considered part of the required uniform. Since the most accurate monitoring occurs when the device is worn in a consistent place on clothing in either the pelvic or shoulder and neck regions of the body. Program policy requires that you wear the dosimeter on your right or left collar (at the level of the thyroid). The student is responsible for making sure they are changing their OSL on the required quarterly schedule. If the student arrives to clinical without their OSL the student will be sent home and will result in an unexcused absence. Loss or damage to the badge must be reported immediately to the Clinical Coordinator for replacement.

Radiation Safety polices are outlined in this section of the Student Handbook.

CLINICAL EDUCATION – GENERAL INFORMATION

Clinical instructional content is organized into six courses (1 - 6).

Clinical Course Syllabus

The student receives a clinical course syllabus at the start of each course. This document identifies the educational content of the course, a schedule of clinical assignments, goals (total number of competencies and stats), appropriate evaluation and documentation forms, and the specific requirements to satisfactorily pass the course. ***Note: Course requirements in clinical course syllabi supersede general information in the student handbook.***

Clinical Education Begins with Classroom Instruction

Classroom instruction and examination occurs on all radiographic procedures on which students are required to demonstrate clinical competency. Laboratory demonstration, practice and evaluation of students' simulated performance of those procedures follow the lecture portion of the classroom course.

Clinical Learning/Participation: Observation, Assistance, Performance under Direct Supervision and Performance under Indirect Supervision

Clinical participation consists of the observation, assistance and performance phases of clinical education.

Observation and Assistance Phases of Clinical Learning

The student participates by first assisting a qualified radiographer in performance of his/her duties. Participation moves from a passive mode of observation to a more active role of assisting as the student receives further classroom, laboratory, clinical instruction and evaluation.

COMPETENCY-BASED CURRICULUM-SEQUENCING

The program provides a well-structured, competency-based curriculum that supports the program's missions and goals. Prior to students performing examinations under direct or indirect supervision the following sequencing must occur:

- The curriculum is designed so that students first learn a knowledge foundation in the didactic portion of the program. The student demonstrates mastery of the didactic portion by **successfully completing a written test** on the designated area of interest/unit of study.

- The student then proceeds to the laboratory portion. A defined set of learning objectives and means of assessment are identified, distributed, and discussed prior to the start of any unit of laboratory instruction. The student performs a laboratory competency that is assessed by the instructor. The laboratory competency evaluation includes assessment of the student in the affective, cognitive, and psychomotor domains. **They must successfully complete the laboratory competency before performing a clinical competency.**

- In the clinical setting, the **student must complete a supervised exam under direct supervision for any mandatory competencies before they are eligible to perform a clinical competency**. Once the supervised exam has been performed, the student receives a Supervised Exam Slip as proof of completion. A Supervised Exam Slip is not required for elective competencies.

- The student is then able to perform a clinical competency on that specific exam. The student is evaluated by a clinical instructor or a registered radiologic technologist. The student must then present the exam to a clinical instructor or the clinical coordinator. Students must be able to explain positioning, projections, techniques used, and anatomy to the instructor. **Upon successful completion of the clinical competency, the student is allowed to perform that exam under indirect supervision.**

- To reinforce and challenge competency skills, the student is **then required to perform a predetermined number of indirectly supervised exams** after they have achieved clinical competency. The required number of exams (Stats) to be completed increases each quarter and is outlined within the clinical syllabus each quarter

Radiographic Examination Performance under Direct Supervision

For clinical competence to develop, the student must advance to performing examinations under the direct supervision of a qualified radiographer. Reference Policy on Direct and Indirect Supervision of Students in Clinical Education.

Radiographic Examination Performance under Indirect Supervision/The Clinical Competency Examination/Evaluation

For Mandatory/Routine Exams
To perform examinations under the indirect supervision of qualified radiographers, students must first demonstrate they are clinically qualified to perform exams (under indirect supervision). To qualify, students must successfully pass two evaluations under direct supervision. Mandatory exams are exams that are performed frequently.

Step 1 - First evaluation-Supervised Exam Slip (Ticket to ride):

Documentation of a Successfully Performed Exam under Direct Supervision
(Trajecsys- Level 3)

To ensure that students are ready/qualified to complete clinical competency evaluations, students must first perform mandatory exams under the guided supervision of a qualified radiographer.

On completion of the evaluation, the supervising RT signs the **Supervised Exam Slip.** The student submits the form to the CI who then signs the form and returns it to the student. The student holds on to the form for later use during clinical assignment.

Step 2 - Competency:

Documentation of Clinical Competency for Direct Supervision
(Trajecsys- Level 3).

When students are ready to demonstrate their full competency on the performance of a mandatory exam, they request a **Clinical Competency Evaluation** (Trajecsys). A qualified radiographer, clinical site supervisor, CI, CC or other program faculty may perform the evaluation.

Process:
The student verifies that he/she is ready for the final evaluation by showing the evaluator the signed Documentation of the **Supervised Exam Slip** which was performed under Direct Supervision.

The student successfully completes the clinical competency evaluation (Trajecsys) with a grade of 80% or higher.

If students do not attain this level, a grade of 0 is recorded and calculated into the respective clinical course grade.

Failed clinical competencies must be repeated and may result in additional classroom assignments and/or laboratory instruction and practice.

For Elective Exams

To qualify for a clinical competency evaluation on an **elective exam**, students bypass the successfully performed exam under direct supervision (Supervised Exam Slip) and only complete the competency using the **Clinical Competency Evaluation** form. Students may receive limited support on elective competency evaluations and use positioning notes/references at the control panel provided the notes are out of patient's site of vision.

Students must perform radiographic exams under the direct supervision of qualified radiographers until they have successfully passed clinical competency evaluations on mandatory/routine exams. All exams performed by the student after successful completion of a Clinical Competency are considered Indirect exams (Trajecsys-Level 5).

The Clinical Instructor/Coordinator has the authority to reassess competency evaluations performed by qualified radiographers.

EVALUATION OF CLINICAL PARTICIPATION AND COMPETENCY

Clinical Assignment Objectives and Evaluations

(Evaluation of the Student's Performance in the Assigned Area)

The student rotates through assigned radiographic areas in Diagnostic Imaging and related departments at the approved clinical sites. Most assignments are on a bi-weekly basis. With each rotation, the student will need to have a technologist complete a Clinical Assignment Objectives and Evaluation (Trajecsys). The form identifies the learning objectives the student is to master during that assignment. To demonstrate the student's satisfactory completion of those learning objectives, the student is evaluated by a Clinical Instructor or by the supervising radiographer assigned to that clinical area. The evaluation form is completed by the CI/supervising radiographer during the last week before the last day of the student's assignment.

Submission of Clinical Competency Forms and Stats (Clinical Paperwork)

All clinical forms (assignments, competency evaluations and stats) must be completed before the last day of clinical assignment. **All competencies must be completed and submitted electronically to the Clinical Instructor no later than 2 weeks past the date on which the competency was performed.**

Report of Clinical Examinations Performed (Trajecsys)

Students must submit examinations electronically at the completion of each clinical day to document the volume and variety of examinations in which the student has participated.

Evaluation of Professional Ethics and Attitudes

Evaluations Completed by Clinical Instructors and Clinical Coordinators

A student's affective behavior is evaluated with each clinical competency examination. In addition, affective assessments are performed by the CIs at each clinical site in a term and by Clinical Coordinators. These evaluations take into account the student's professional conduct, clinical involvement and cooperation in the clinical area (Trajecsys).

CLINICAL DISCIPLINARY ACTIONS, PROBATIONS, FAILURES AND DISMISSALS

Reference STUDENT EVALUATION PROCESS, (See Academic Integrity Policy Statement)

Dismissals involving unethical conduct may result in immediate involuntary withdrawal from the program.

COMPLETION OF CLINICAL COURSE REQUIREMENTS

Determination of Clinical Grade

The student's clinical course grade is determined by assessment and calculation of the student's progress as determined by his/her:

1. **Clinical Competency Evaluations** **25%**
2. **Equipment Manipulation, Clinical Assignment Objectives and Evaluation** **10%**
3. **Clinical Course Statistics (indirectly supervised exams in specified categories)** **25%**
4. **Clinical Instructor Evaluations of Professional Conduct and Critical Thinking** **20%**
5. **Clinical Coordinator Evaluations of Professional Conduct and Critical Thinking** **20%**

Required Clinical Competency Evaluations (25% of the course grade)

As one of the educational requirements for completion of the Radiography Program, students must perform competencies on **all routine (mandatory)** examinations. The total number of **routine (mandatory)** examinations is **37**. The required minimum number of examinations performed on actual patients is **29**. Simulations will be accepted for the remaining exams. Students must perform a minimum of **15** examinations from the **"elective"** category per ARRT https://www.arrt.org/pdfs/Disciplines/Competency-Requirements/RAD-Competency-Requirements.pdf
https://www.arrt.org/pdfs/Disciplines/Competency-Requirements/RAD-Competency-Requirements-2017.pdf

The School and clinical sites will not perform simulated competency exams on Fluoroscopy & Surgical Cases.

Clinical Competencies performed in each quarter can and will rollover to the next quarter.

Routine (Mandatory) Clinical Competency Evaluations

Each clinical course syllabus identifies the requirements to pass the course. One requirement is to satisfactorily perform a minimum number of clinical competency exams. Students may complete more than this number.
Note: Course requirements in clinical course syllabi supersede general information in the student handbook.

Elective Clinical Competency Evaluations

It is recommended that the student complete a minimum of 2-3 elective examinations per clinical course starting in the 3rd term.
Note: Course requirements in clinical course syllabi supersede general information in the student handbook.

Demonstration of Clinical Competency

For competency to be demonstrated, students must achieve a minimum mastery level of 80% or higher. If students do not attain this level of competency (80%), a percentile grade of 0 is recorded and calculated into the respective clinical course grade. On passing the competency, the earned percentile grade is recorded and calculated into the respective clinical course grade. Students are responsible for seeking out the CI or qualified staff radiographer for this purpose.

Clinical Assignment Objectives and Evaluations (10% of the course grade)

Students must complete the required number of clinical assignment objectives and evaluations, as required of each clinical course.

Clinical Statistics (25% of the course grade) This is a new goal for each quarter- no rollover.

Students must attain or exceed the required number of indirectly (Level 5) supervised exams identified with each clinical course.

Professional Conduct and Critical Thinking – **Clinical Instructor** (20% of the course grade)

Completed by Clinical Instructors. Evaluations will be completed at the end of each clinical site rotation. Minimally two evaluations will be completed by the clinical instructors/supervisors per term. Mid-term evaluations may be included. Please note, an effective evaluation may be requested at any time by the Clinical Coordinator(s).

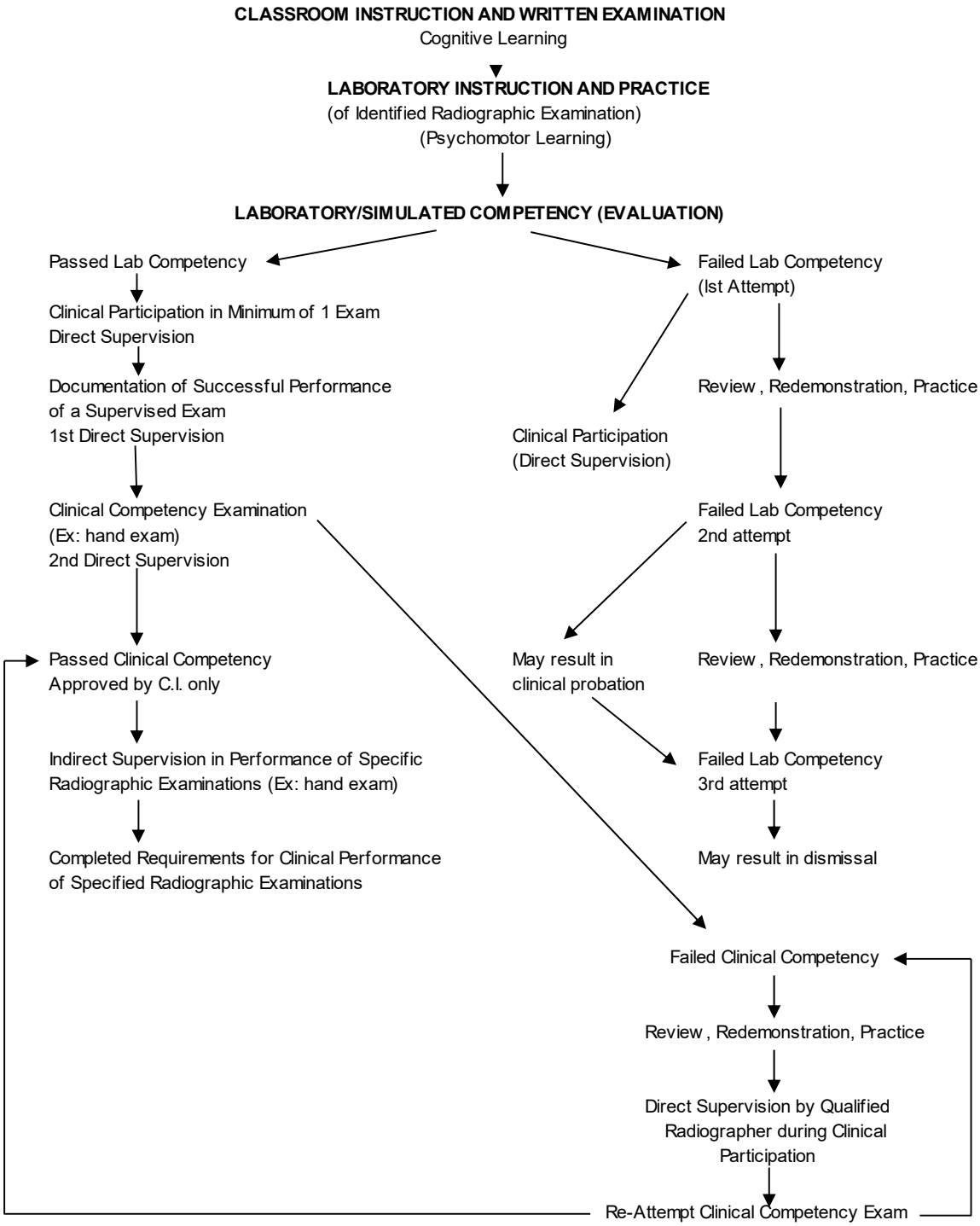
Professional Conduct and Critical Thinking - Clinical Coordinator(s) (20% of the course grade)

Completed by Clinical Coordinators (CC). Clinical Coordinators' evaluations take into account: students' submitted clinical work, all clinical evaluations on a student, documented clinical incidents, consultations and feedback from the clinical sites, i.e., via email the C.I. compliments a student's willingness to assist staff, i.e., the CI reports that a student is continuously late. This evaluation also includes the CCs' assessment of students from their clinical site visits. During these visits CCs perform clinical evaluations, make observations and interact with students. CCs also receive feedback from students' instructors/supervisors during these visits.

Clinical Assignments and Hours

Reference clinical course syllabi and schedules. Reference Part 1, Student Handbook.

COMPETENCY BASED RADIOGRAPHY EDUCATION



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Instructions for Coding/Identification of Clinical Documents

Purpose: For the protection and security of our patient's privacy.

Coding and identifying of patient information for Statistics and Competencies:
1. Type the last five numbers of the medical record number (MR#).

Example... Patient's Name: John A. Smith / MR#: 0000019875

19875

This code of patient identification is to be used when filling out all mandatory and elective competencies, and all clinical exams which are observed, directly supervised, and indirectly supervised.

CLINICAL SUPERVISION

The student is directly answerable to the clinical instructor(s) (CI) in the clinical setting and is responsible for keeping the CI informed of his/her whereabouts at all times. Under the direction of the program director and the clinical coordinator (CC); clinical instructors, department supervisors and staff radiographers provide supervision and instruction. All actions of reprimand, scheduling of clinical assignments and "free periods" are determined by the clinical coordinator.

If a student has any problem in her/his relationship with department personnel, schedules, etc., she/he is to speak to the CC and CI. Scheduling changes are made by the CC of the program. If a CI experiences problems with a student, he/she is to bring this to the immediate attention of the CC and/or director.

RADIOGRAPHIC IMAGE IDENTIFICATION

The student purchases identification markers (letters, 'R' for Right and 'L' for Left, and other letters or numbers), which are the Diagnostic Imaging Departments' identifying code for all radiographers. These markers are used on ALL radiographs. Students are oriented to the protocols of their use of the markers at each clinical site. Digital annotations of markers is not acceptable.

REPEAT RADIOGRAPHIC EXPOSURES

All repeated exposures must be performed under the direct supervision of a qualified radiographer, regardless of the student's level of competency. Failure to do so will result in the clinical suspension of the involved student(s).

INCIDENT REPORT

If you have injured yourself or if you are involved in an incident with a patient, hospital/medical center associate, visitor or another student, the incident must be reported to appropriate clinical site personnel immediately. Documentation of the incident must be completed per clinical site and department policy/protocols. The following steps must be adhered to:

In Clinical Assignment

1. At the clinical site, notify the Clinical Instructor (your immediate supervisor).
2. In the absence of the CI, notify the acting CI, or department supervisor, manager or administrator.
3. Per instructions and guidance from the CI, designated supervisor or other supervisor, complete the appropriate form to document the incident.
4. Sign and date the form (report) after it has been reviewed by the appropriate administrating body.
5. In cases of injury, the student is directed to the Emergency Department for medical care and is responsible for services rendered.
6. Notify the clinical coordinator and/or program director as soon as it is possible to do so for further guidance and support.

CLINICAL EDUCATION HOURS

Clinical education will normally be eight-hour days, as assigned by the clinical coordinator.
Students are usually rotated in two week assignments. The clinical assignment schedules and clinical course syllabi are distributed to students and reviewed with students by the Clinical Coordinator. Clinical assignment schedules are also posted in the Diagnostic Imaging departments (clinical sites) by the designated Clinical Instructors.

Students are required to make themselves aware of the assigned hours and adjust personal and work schedules to coincide with their clinical schedule, as distributed and posted at the clinical site.

Quarters 2 – 4 (1st year)

Clinical assignments are on Tuesdays and Thursdays. Most assignments are scheduled between 5:00 a.m. and 7:00 p.m. Limited assignments will extend until 11:30 p.m.

Quarters 5-7 (2nd year)

Clinical assignments are on Mondays, Wednesdays and Fridays. Most assignments are scheduled between 5:00 a.m. and 7:00 p.m. Limited assignments will extend until 11:30 p.m.

If a student is dismissed by their CI or site supervisor in excess of one hour prior to their end time, the CI or supervisor must notify the CC via email or phone call.

The Clinical Coordinator has the right to reassign any student to another clinical site if they are at a site that is not functional at the time of their clinical attendance. (PACS system down, Equipment malfunction, staffing issues, ETC).

ATTENDANCE AND ABSENCE FROM CLINICAL ASSIGNMENT

Regular attendance and punctuality are **mandatory** for clinical practicum during the scheduled hours.
Tardiness is not acceptable.
Definition:

- ***Absence*:** An absence is defined as not attending and/or arriving to clinical 1 hour or more past the scheduled start time.
- ***Tardiness*:** Tardiness is defined as reporting to clinical practicum from 1 minute up to 59 minutes past the scheduled start time.
- **Accruing the first three tardies**: will result in an unexcused absence. If there is no allowed excused absence day left in your bank, then you will result in a letter grade reduction. For each additional tardy beyond the first three, will result in an additional letter grade reduction will occur, e.g. 3 tardies= 1 absence, 4th tardy = 1 additional absence, etc.

First Year
A maximum of eight hours of absence per first year term (CCI, II, and III) may occur with no negative impact on the clinical course grade.
Absences in excess of 8 hours will result in the lowering of the clinical grade by one (1 letter) with each subsequent absence. Students documenting cumulatively thirty-two (32) hours or more of unexcused clinical absence in a term will be dismissed from the program.

- 1st absence recorded, i.e. 8 hours.

- 2nd absence recorded, i.e. 8 hours (total 16 hours). 1st letter grade reduction from calculated course grade, i.e. A to B.
- 3rd absence recorded, i.e. 8 hours (total 24 hours). 2nd letter grade reduction, i.e. B to C.
- 4th absence recorded, i.e. 8 hours (total 32 hours) dismissal from program.

Should a student not use the full 8 hours of PTO in one term, 8 hours of 'Bonus PTO' are added to the next term. The bonus PTO hours are used for the first 8 hours of clinical absence in the new term and they are recorded as 'Bonus PTO.' Bonus PTO hours are hours recorded as an absence without penalty and do not impact the clinical course grade. Bonus PTO hours may not roll over if not utilized during the term it was awarded.

Second Year

A maximum of 16 hours of absence per second year term (CC IV, V, and VI) may occur with no negative impact on the clinical course grade.
Absences in excess of 16 hours will result in the lowering of the clinical grade by one (1) letter with each subsequent absence. Students documenting cumulatively forty (40) hours or more of unexcused clinical absence in a term will be dismissed from the program.
Action:

- 1st absence recorded, i.e. 8 hours.
- 2nd absence recorded, i.e. 8 hours (total 16 hours).
- 3rd absence recorded, i.e. 8 hours (total 24 hours). 1st letter grade reduction from calculated course grade, i.e. A to B.
- 4th absence recorded, i.e. 8 hours (total 32 hours) 2nd letter grade reduction, i.e. B to C.
- 5th absence recorded, i.e. 8 hours (40 hours) dismissal from program.

Should a student not use the full 8 hours of PTO in one term, 8 hours of 'Bonus PTO' are added to the next term. The bonus PTO hours are used for the first 8 hours of clinical absence in the new term and they are recorded as 'Bonus PTO.' Bonus PTO hours are hours recorded as an absence without penalty and do not impact the clinical course grade. Bonus PTO hours may not roll over if not utilized during the term it was awarded.

Increments of PTO

PTO may be used for absences or unavoidable appointments. **No make-up time** is available for absences or appointments in excess of the 8/16 hours, and any excesses will negatively affect the student's clinical grade. PTO may be taken in no less than 4 hour increments.

Arranging for PTO

If possible, PTO should be pre-arranged with the Clinical Coordinator. To pre-arrange an "Authorized Absence," the student should complete a PRE-ARRANGED ABSENCE. This form should be given to the CC for his/her written approval of the pre-arranged day or hours off.

Protocol to Reporting Absences/PTO

Students must report all tardies and absences to their Clinical Instructor **30 min prior to start time**. If the CI is not available, they must leave them a voicemail and an email. Also, the student is to make sure they actually speak to a technologist. We are requiring this in the event the CI is scheduled off or is unable to check voicemails, then someone in the department has been made aware of the call in**.**

The student **must notify** the Clinical Coordinator at least **30 min prior to the scheduled time** with a phone call or an email. Failure to do so will be reflected on your Professional Conduct and Critical Thinking Evaluation and will also result in a letter grade reduction.

1. Clinical Coordinator: Raj Patel 708-237-5000 ext. 2838 or 708-237-5050

******IMPORTANT in addition to calling please E-Mail the Clinical Coordinator at:**
rpatel@nc.edu

2. To contact the Clinical Instructors, please refer to the list provided in the syllabus for the appropriate phone numbers. Students are encouraged to save phone numbers in their mobile devices.

No Call and/or No Show:

The student must notify the Clinical Coordinator and Clinical Instructor at least 30 min prior to the scheduled time. Failure to place the calls and/or attend clinical practicum will result in an immediate letter grade reduction from the final clinical course grade for each occurrence.

Release from a clinical site due to possible infectious illness that can cause harm to patients and/or hospital staff:

1. If the site requests the student to go home, the student must comply with the site's request and the time will be deducted from their PTO bank.
   (Increments of 4 or 8 hours).
2. If the student knowingly has a possible contagious/communicable disease and still attends clinical and is sent home by the site, it will be penalized with a letter grade reduction from their final grade.

The following as defined as excused absence:

1. Death in the immediate family- mother, father, spouse/domestic partner, child, brother, sister, grandparents, or grandchild. Documentation must be provided.
   a. Leave of up to four days off from the program will be granted in the event of the death of a mother, father, spouse/domestic partner, child, brother, sister, grandparents, or grandchild;
   b. Any other bereavement leave request, which is not defined above, must be approved by the program director.
2. Statutory governmental responsibilities- jury duty or court subpoena. Documentation of the request & also evidence that you were present on that day.
   a. Mandatory Court appearance due to traffic ticket violation is **Not Excused**.

3. Any other request for consideration of a potential excused absence will be determined by the program director after consultation and appropriate documentation is provided.

Signing In and Signing Out at Clinical Site

Students are required to Sign In and Sign Out at their assigned Clinical Education Setting using the Trajecsys Electronic System.

Time Exceptions are **NOT** allowed in Trajecsys. You will need to contact your Clinical Coordinator by telephone prior to the start of your clinical practicum (office 708-237-5097 ext. 2833 or 708-325-8494) if you are not able to clock in on-time.

Failure to sign - in and sign -out at the clinical site will reflect on your Professional Conduct Evaluation. Failure to sign in/out must be corroborated by a technologist or supervisor at your site, via email or phone call to the clinical coordinator.

Excessive Absences in a Clinical Assignment

Students missing 50% or more of their assignment (unexcused absences) will be given a percentile grade of 0 on the Clinical Assignment and Objective Evaluation for that 2 week assignment.

CLOCKING IN/ OUT on Trajecsys (DOCUMENTATION INTEGRITY)

- Under no circumstances is it acceptable for a student to clock in/out for another student.
- Under no circumstances is it acceptable for students to falsify their clock in/out
- Under no circumstances will a student be allowed to clock-in/sign-in for work at any clinical setting where they may be employed during clinical assignment hours.
- Falsification of documents constitutes fraud and all involved students in such deceptive practices will be dismissed from the program.
- Under no circumstances is it acceptable to utilize any unauthorized computer or any cell phone or tablet to clock in/out of clinical practicum.

ATTENDANCE DURING INCLEMENT WEATHER

Unless the College is 'officially' closed, students are expected to attend all scheduled classes including their clinical assignments. Should a decision be made to close the College, students are notified by their cell or land-line number in the early morning, i.e., 6:00 a.m.

STUDENT'S PROFESSIONAL CONDUCT IN THE CLINICAL AREA
The student is expected to conduct him/herself in a professional manner at all times.

STUDENT'S ATTITUDE AND RESPECT:

- Students should maintain a cooperative and positive attitude without voicing unnecessary complaints.

  Any intentional false communication, either written or spoken, that harms a person's reputation; decreases the respect, regard, or confidence in which a person is held; or induces disparaging, hostile, or disagreeable opinions or feelings against a person. Defamation may be a criminal or civil charge. It encompasses both written statements, known as LIBEL, and spoken statements, called slander.

- Information relative to clinical sites and activities, technologists, patients or their families, faculty and didactic course content is considered an ethical breach of confidentiality and is in direct violation of HIPAA/FERPA and the Professional Code of Conduct to which students have agreed to adhere. Failure to comply will result in disciplinary action which may include dismissal from the Program.

- There is no hindrance on freedom of speech, more so as a precautionary means to understand that these incidences are unable to be retracted once committed.

ADDRESSING PATIENTS

- Patients are never to be addressed by their first names, but as Mr., Mrs., Ms. or Miss. They are never to be called, "Hon," "Dear," "Grandpa," etc. Under no circumstances are patients to be referred to as "the chest," "the stomach," "the leg" or the like.

EATING AND DRINKING

- Students are not permitted to eat or drink in patient care, image viewing, processing, record keeping or any other areas identified as radiographic work locations or environments. CHEWING GUM IS PROHIBITED IN THE CLINICAL AREA.

CONVERSATIONS:

- Personal - Conversations are reserved for non-patient care areas.

- Professional - Information regarding the patient's x-ray findings or ailments must never be disclosed to the patient, his family or anyone else. This privilege is reserved strictly for the physician. All conversations regarding a patient's condition, diagnosis, or merits of the radiograph are to be monitored, with respect to the patient's location.

- Telephone - Personal phone calls in the clinical area are prohibited. Telephone lines are to remain open for patient care services. Students are not permitted to carry cell phones and/or pagers while in clinical assignment.

- Language Uniformity - English is to be spoken for all professional communication while in clinical assignment.

- Networking/Social media usage: All students must be conscious and careful when using Social Media (i.e. LinkedIn, Facebook, MySpace, YouTube, Twitter, Friendster, Instagram, SnapChat, etc.). At this time there is no way to remove or erase the digital content, any inappropriate usage can diminish your personal reputation as well as the reputation of the school, program, employers and the community of your area.

ASSIGNED AREAS:

- Students are not to leave their assigned area at any without permission. When not actively engaged in radiographic work or other duties, students will remain in their assigned areas and not congregate in offices, halls, or other rooms.

If a student fails to adhere to these guidelines and stipulations, he/she must understand that the following corrective measures will be taken:

First Offense Investigated non-compliance - documented oral conference with the clinical instructor. **Second Offense** Investigated non-compliance - documented oral conference with the clinical coordinator and/or PD. **Third Offense** Investigated non-compliance - dismissal from the program

Policies
Procedures
&
Expectations

DRESS CODE
POLICY

All Students will adhere to the program's clinical dress code and to Northwestern College's dress code.

Clinical sites reserve the right to request additional adherence to departmental policy dress code; (i.e. tattoos, jewelry, hair styles/color).

Accepted Clinical Assignment Attire

- Caribbean blue scrub set and white knee length lab coat.

Lab Coats

White lab coat. No other color permitted.

- Clinical Assignments
  - To be worn during clinical assignment.

Required Monogramming of Uniforms

- Lab Coat: School emblem to be sewn on to upper left sleeve of each lab coat. Emblems to be purchased at bookstore or student will be billed for 3 emblems with payment made through financial planning.
- Scrub Tops: "Radiography" over left chest pocket. Caribbean blue tops to be done in white thread.

Uniform Shoes and Socks

- All white socks (crew, no tube socks, no tennis/ankle socks).
- All white leather shoes.

Miscellaneous

- You should minimally have 2 uniforms for a given week.

Uniforms and Shoes

- All students are to be neat in appearance while in the clinical area.
- Uniforms and lab coats are to be cleaned (laundered), free of stains and holes, ironed (pressed) and mended for missing buttons and tears.
- Shoes must be neat, clean and polished with shoelaces laundered periodically to remain clean and professional in appearance.
- Hospital "Scrubs" are only to be worn during fluoroscopic and surgical procedures and are not to be worn outside the medical center.
- Scrubs should be appropriately sized and not be unprofessionally form fitting.

T-Shirts

- Students are permitted to wear round or V-neck T-shirts.
- T-shirts may be worn under uniform shirts provided they are free of logos, cleaned, white in color and properly laundered and pressed.
- T-shirt sleeves must not show/fall below sleeve of the uniform shirts.

Personal Hygiene

- Each student is to shower/bathe, shampoo his/her hair daily.
- Oral hygiene must be maintained at all times.
- Men must always be clean shaven or neatly trimmed/groomed facial hair.
- Nails are to be clean, manicured and of reasonable length, so as not to injure the patient, or impede performance.
- Below shoulder length hair should be tied back. Students may be asked to tie back their hair, given consideration to other styles of cut. Hair must not be permitted to fall in your face or onto the patient or other surfaces in the course of performing an exam or caring for a patient.
- Hair must be well groomed and styled. Wet hair is not allowed.
- Hair may be dyed in natural colors only.
- Excessive use of colognes or perfumes is prohibited

Jewelry/Cosmetics

- A watch, to include indication of time in seconds, **must** be worn at all times.
- Earrings - One earring per ear is permitted. Hoops of reasonable size.
- Other jewelry may be worn in moderation.
- Nail Polish - Dark colors such as green, blue, purple, black, etc. are not permitted.
- Clear or natural colored nail polish is preferred.
- Artificial nails are not to be worn by students providing direct patient care.

General

- Personal pagers and cell phones are not to be worn or used during clinical assignment.
- Identification and **radiation monitoring badges** are part of the uniform and **must** be worn at all times in the clinical area.
- Students will also need:

    1. Pen (Black or blue ink only)
    2. Pocket positioning guide
    3. Lead markers

Non-Clinical Assignment Days

- Street clothes are permitted on days when there are no clinical rotations (Adherence to NC dress code is mandatory - see College Catalog)

Non-compliance with the program's Dress Code may result in the following actions:

- The parameters of the dress code will be enforced by periodic inspections (minimally one per week) by faculty members/clinical instructors. If dress code is violated, the student will be sent home to amend his/her appearance or hygiene.

- The amount of time that he/she is absent from his/her clinical assignment will be documented and deducted from their PTO bank.

- Continued disregard for proper dress may result in suspension and/or dismissal due to the student's non-compliance with the program's guidelines and regulations.

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

Direct and Indirect Supervision of Students in Clinical Education
Policy

To: Student Radiographers

PURPOSE

- To assure that students receive appropriate guidance and instruction suitable to their level of competency achievement.

- To assure that student practices in the clinical educational process uphold the principles of ALARA (As Low as Reasonably Achievable) for the protection of the patient and self/student from unnecessary radiation.

POLICY

Direct Supervision

Prior to student competency achievement, the ratio of students to staff in a given examination or procedure shall not exceed 1:1.

Prior to student competency achievement, the student's participation in a given examination or procedure must be directly supervised by a ***qualified radiographer*** *.

Direct Supervision Parameters – A Qualified Radiographer:

- Reviews the procedure in relation to the student's achievement

- Evaluates the condition of the patient in relation to the student's knowledge.

- Is present during the performance of the procedure.

- Reviews and approves the procedure.

- Is present during student performance of any repeat of any unsatisfactory radiograph.

Qualified radiographer
- A currently licensed and credentialed radiographer.
- A qualified radiographer documenting orientation to the parameters of clinical supervision, instruction and evaluation.

Indirect Supervision

Supervision provided by a qualified radiographer immediately available to assist students regardless of the level of student achievement. Immediately available is interpreted as the presence of a qualified radiographer 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.

Indirect Supervision Parameters:

Following ***completed documentation of a clinical competency evaluation**** on a specific examination or procedure a student may perform that examination or procedure under indirect supervision.

- Under no circumstances shall clinically competent student radiographers perform examinations or procedures without the immediate availability of a qualified radiographer to provide the student with assistance under direct supervision.
- 'Immediate availability' is defined as:
- A qualified radiographer is in the Diagnostic Imaging Department area. The Diagnostic Imaging Department area does not include the "Lounge" or "Office" areas.
- A qualified radiographer is in the vicinity/adjacent to a patient room or other area in which the student has performed a portable examination under indirect supervision.
- All radiographs and written documentation completing examinations and procedures performed by students under indirect supervision must be reviewed by a qualified radiographer.
- Any position or projection requiring repeated exposures must be performed under the direct supervision of a qualified radiographer, regardless of the student level of competency.
- ***Completed documentation of a clinical competency evaluation***
- The clinical competency evaluation on the examination or procedure has been reviewed with the Clinical Instructor and/or Coordinator and all signatures are affixed and dated.

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

To: **Clinical Staff** – Diagnostic Imaging, Clinical Education Centers of Northwestern College
School of Health Sciences Radiography Program

From: Catherine Guerrero, Program Director
Raj Patel, Instructor/Clinical Coordinator
Gary Gruenewald, Associate Professor/Clinical Coordinator

Re: Supervision of Students in the Clinical Environment
Clinical Staff:

Thank you for supporting the clinical education of Northwestern College School of Health Sciences Radiography Program students. We appreciate the time and effort that you take to supervise and assist our students in their clinical education. Your contribution to student learning is invaluable.

PURPOSE

To clarify the supervisory and student responsibilities necessary and appropriate for a safe and meaningful learning environment.

To assure that:

- Our radiation safety practices and policies of the program are maintained, please review, sign and date this memo.
- Students receive appropriate guidance and instruction suitable to their level of competency.
- Student practices in the clinical educational process uphold the principles of ALARA (As Low as Reasonably Achievable) for the protection of the patient and themselves from unnecessary radiation.
- Radiation protection guidelines are utilized and reinforced for the safety of students and others.

PARAMETERS

Direct Supervision
All medical imaging procedures will be performed under the 'direct supervision' of a qualified radiographer until the student achieves competency.

- Review the procedure in relation to the student's achievement.
- Evaluate the condition of the patient in relation to the student's knowledge.
- Is present during the performance of the procedure.
- Reviews and approves the procedure.
- Is present during student performance of any repeated exposure of any unsatisfactory radiograph.

Indirect Supervision

Qualified radiographers are immediately available to assist students at any level of clinical competency.

- Qualified radiographers must be in the Diagnostic Imaging Department.
- A qualified radiographer is in the vicinity/adjacent to a patient room or other area in which the student has performed a portable examination under indirect supervision.
- All radiographs and written documentation completing examinations and procedures that are performed by students under indirect supervision must be reviewed and initialed by a qualified radiographer.

Students Repeating Exposures

All repeated exposures **must** be performed under the direct supervision of a qualified radiographer, regardless of the student's level of competency.

OVERVIEW

- Students are directly supervised in their performance of radiographic exams and procedures until they have achieved competency (successfully passed a clinical competency evaluation form).
- All clinical competency exams are performed under the direct supervision of qualified radiographers.
- On completion of the competency exam, the qualified radiographer evaluates the student's performance of the exam, signs the completed form, and returns it to the student.
- Radiographers must be immediately available to the student when needed and at all times.
- All repeated exposures must be performed under the direct supervision of a qualified radiographer regardless of the student's level of competency.
- Students are not permitted to hold patients.
- All incidents students may become involved in must be handled according to department policy, i.e., incident report. The Clinical Instructor must be immediately contacted to follow through with protocols and in turn will notify the Program of the incident.
- Exposure to blood and body fluids should be handled according to department policy. Procedure identified in the above statement is applied.
- Students' view qualified staff as their mentors and instructors. Students are accountable for their actions and adherence to program and department protocols. Students are respectful and courteous to all levels of authority under which they receive supervision and guidance.
- Radiation safety practices and protocols of the department are utilized/enforced for student safety.

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

To: Student Radiographers

RE: Procedure for Radiograph in the Presence of Orthopedic or Other Appliance

Under NO CIRCUMSTANCES is a student radiographer allowed to remove weights for traction, braces, bandages, splints, elastic bandages, cervical collar, or anything else a physician has put on the patient. Should permission/instructions be given by the attending physician, nurse, radiologist or department supervisor to remove the device, the student must seek out a qualified radiographer to perform this task.

Under NO CIRCUMSTANCE will a student encourage the patient to remove bandages, braces, cervical collar, or splints unless the patient has been removing them by themselves on a routine basis prior to the examination.

If you are unable to radiograph the body part due to the device, you are to seek qualified assistance.

Make sure that proper documentation is on the requisition as to who gave the permission/instructions to remove the device.

Reviewed: 4/11/08, 10/12/09, 6/12/15, 1/3/17, 2/11/2018

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

Criteria for Radiographic Image Evaluation

All radiographic procedures performed by students are to be reviewed by a qualified Radiologic Technologist.
However, all clinical competency examinations must be approved and reviewed by the Clinical Instructor, or in their absence, a supervising department radiographer.

Evaluation of the examination includes review of the radiographs, the written documentation, and follow through with department procedure and protocol for case processing.

Criteria for evaluation includes, though is not limited to, the following:

Radiographic Images:

-Identification Marker visible and appropriately placed
-Right or Left Lead Marker properly placed on image receptor
-Collimation Demonstrated
-Proper Positioning/Anatomy Demonstrated
-Technique Acceptable
-Proper Size Image Receptor
-Correct Projections associated with each Examination

Requisition:

-Correct Patient History Questions/Answers Documented
-Documentation of Radiographic Examination Room
-Student and Radiographer's initials correctly documented
-Correct Number of Images Documented
-Pregnancy Screening Documented
-Patient Shielding and Radiation Protection Procedures documented

Image Archiving:

-Follow-through with Correct Processing of 'STAT' Cases
-Correct Placement of Completed Cases in Designated Areas

Reviewed: 4/11/08, 10/12/09, 6/12/15, 1/3/17, 5/22/2017, 2/11/2018

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

WEARING OF DOSIMETER BADGES/PERSONNEL MONITORING POLICY

The application of radiation protection measures applies to the public, employed personnel in radiation areas and to student radiographers. For the purpose of monitoring whole body exposure, **dosimeter must be worn during clinical instruction AT ALL TIMES**.

Since the most accurate monitoring occurs when the device is worn in a consistent place on clothing in either the pelvic or shoulder and neck regions of the body. **Program policy requires that you wear the dosimeter on your right or left collar (at the level of the thyroid).**

The application of radiation monitoring is so important a measure for your health and safety, that failure to wear the dosimeter during clinical learning will result in dismissal from clinical instruction on that day.

Dosimeters are not to be worn outside of the clinical site.

Reviewed: 4/11/08, 10/12/09, 06/12/15, 1/3/17, 2/11/2018

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

To: Student Radiographers

GONADAL SHIELDING POLICY

The use of gonadal shielding is an important radiation protection measure for the purpose of reducing unnecessary x-ray exposure of the patients' reproductive organs during radiographic examinations. Unnecessary radiation exposure to the gonads may be potentially harmful to future generations. Gonadal shielding must be used for all patients having reasonable reproductive capacity. The following categories identify the appropriate type of shielding for specific radiographic exams given to male and female patients.

Female

A lead apron should be used on all exams except pelvis, hip, upper femur, lumbosacral, sacrum, coccyx, colon (barium enema), large abdomen films and small bowel exams.

Male

Contact shields should be used on all exams where the primary beam is within 5 cms. of the pubic bones. This includes exams of the pelvis, hip, proximal femur, IVP exams, abdomen, lumbar and lumbosacral, sacrum and coccyx. Lead aprons should be used on all other exams with placement appropriate to part to be examined.

Extremity Radiography

Placement of a lead apron over the gonadal region is to be applied to patients who are scheduled for extremity x-ray examinations.

THE USE OF GONADAL SHIELDS REDUCES UNNECESSARY RADIATION EXPOSURE TO THE REPRODUCTIVE ORGANS UP TO 95%.

Reviewed: 4/11/08, 10/12/09, 06/12/15, 1/3/17, 2/11/2018

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

To: Student Radiographers/Staff

RE: Required Radiation Safety Guides and Precautions Policy

Students who do not adhere to Program and Diagnostic Imaging Department radiation safety policies, procedures and protocols are subject to disciplinary action/reprimand.

1. Holding Patients or Holding image receptors

   Under **no** circumstances is a student radiographer to support/assist a patient during radiographic exposure. The only exception to this guide, regards assistance of the radiologist during fluoroscopic examination. Other than this exception, a patient may be supported/assisted by relatives or nursing personnel, given appropriate radiation protection apparel (apron and gloves) and pregnancy screening, when applicable.
   Under **no** circumstances is a student radiographer to hold an image receptor during any radiographic exposure.

2. Radiation Monitoring:

   A dosimeter provided by the Program must be worn at all times of any contact with radiation exposure. When wearing a lead apron, the dosimeter badge must be worn at the level of the collar outside of the lead apron. The dosimeter badge must be changed quarterly and the readings are available in the CC's office.

3. Radiographic Exposure:

   When radiographic exposures are made, student radiographers must be entirely behind the shielding of the radiation control booth. If a patient must be held during the radiographic procedure, the holding should be done by the hospital personnel who are not in the DI Department and regularly exposed to radiation. The person holding the patient must wear a leaded apron and leaded gloves. The person holding the patient should be interviewed for any possibility of pregnancy before allowing her to hold the patient.

4. Fluoroscopic Exposure:

   All student radiographers in the fluoroscopic room must wear a full-leaded apron. The leaded apron should always be between the fluoroscopic tube and the person wearing the apron (personnel should always face the fluoroscopic tube.) Students in the fluoroscopic room should remain as far away from the fluoroscopic table as possible during the completion of the necessary tasks associated with fluoroscopy.

Required Radiation Safety Guides and Precautions (continued)

5. Portable Exposure:

   During radiographic exposure for portable radiographic examinations, the student radiographer must always wear a full-leaded apron. The student **must** maintain the maximum possible distance (minimally 6 feet) from the X-Ray tube during the exposure.

6. Operating Room:

   All safety precautions for fluoroscopic and radiographic exposures as described in steps 3, 4 and 5 should be applied in the operating room. All Operating Room personnel and student and staff radiographers should wear full-leaded aprons, maintain maximum distance and wear radiation monitoring badges.

7. Collimation:

   During all radiographic exposures, optimum collimation of the X-Ray beam must be maintained. The X-Ray beam must always be collimated to the appropriate field of exposure, i.e., area of interest. This provides additional safety for operators of the imaging equipment and for the patient. It also improves radiographic quality.

8. If at any time the energized laboratory is in use, a qualified radiography instructor must be present and supervising the student's use of the x-ray equipment. Radiation monitoring badges must be worn when the radiation producing equipment is in use. The doors allowing access to the energized laboratory remain locked whenever a qualified radiography faculty member is not present.

9. Closure of X-Ray Room Doors:

   All x-ray room doors should be closed during radiographic exposure.

Reviewed: 4/11/08, 10/12/09, 06/12/15, 1/3/17, 5/15/2017, 2/11/2018, 3/1/2018,

PROCEDURE:
EXPOSURE TO BLOOD/BODY FLUIDS and COMMUNICABLE DISEASE

Blood/Body Fluids: Refers to needle sticks, mucous membranes and conjunctival exposures:

1. Wash the site immediately and thoroughly with soap and water. Exposures involving the mouth and eyes should be rinsed with water.
2. Report all incidents **immediately** to Clinical Instructor, acting CI, or appropriate Department Supervisor.
3. With assistance of the supervisor, complete appropriate documentation. The supervisor will then contact
4.Employee Health Services or the Emergency Department to inform them of the incident.
5. The student will then report to supervisor/clinical instructor and follow protocols for given clinical site.
6. The appropriate procedure will be followed for screening, treatment and monitoring, given the nature of the exposure (known source or unknown source).
7. Notify the clinical coordinator and/or program director as soon as it is possible to do so for further guidance and support.

Should a student incur an injury or illness relating to their clinical instruction following procedures should be followed:

1. Notify the Clinical Instructor or in her/his absence other appropriate supervisor. Notify Clinical Coordinator and/or Director.
2. Complete appropriate documentation under the guidance of the Clinical Instructor/supervisor.
3. Report to Employee Health Services of the clinical site with completed documentation or to the Emergency Department for medical care and treatment per the instructions of your Clinical Instructor/supervisor.

Communicable Disease:
"Communicable disease means an illness caused by an infectious agent or its toxins that occurs through the direct or indirect transmission of the infectious agent or its products from an infected individual or via an animal, vector or the inanimate environment to a susceptible animal or human host" In an effort to control the spread of infection there are guidelines to be followed. Additionally, if a student knowingly attends their clinical assignment with a communicable disease the student will be removed from the clinical setting.

Guidelines to Prevent the Spread of Infection
-Proper Handwashing with soap and water is the preferred method, however use of an alcohol based hand sanitizer may be used when soap and water are not available.
-Wash hands between patients, when gloves are removed, or when in contact with blood/bodily fluids.
-Use of PPE (Personal Protective Equipment) when appropriate situation applies.
-Wear gloves when the potential for contact with blood, body fluids, mucous membranes, non-intact skin, or secretions exits. Wear goggles, masks, gowns, and gloves when the potential for the splashing of blood or body fluids exists.
-Wear masks to protect respiratory tract from airborne infectious agents entering the mouth or nose.
-Do not recap or break needles.
-Dispose of contaminated needles, laundry, and other contaminated items in biohazard bags or containers designated by the facility

https://www.cdc.gov/tb/programs/laws/menu/definitions.htm

Employee Health Services is not intended to take the place of the student's personal physician. Illnesses, injuries or other conditions unrelated to the student's participation in radiologic instruction should be addressed to the student's personal physician. Should a student have need of care and treatment as a patient in the Emergency Department or should a student be admitted as a patient, all costs related to this care are the student's responsibility.

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

RE: POLICY ON OCCUPATIONAL DOSE LIMITS AND IRREGULAR EXPOSURE OF RADIATION MONITORING BADGE

According to the United State Nuclear Regulatory Commission (NRC) occupational dose limits for adults is listed as the following:

(1) An annual limit, which is the more limiting of:
   (i) The total effective dose equivalent being equal to 5 rems (50 mSv); or
   (ii) The sum of the deep-dose equivalent and the committed dose equivalent to any individual organ or tissue other than the lens of the eye being equal to 50 rems (500 mSv)

(2) The annual limits to the lens of the eye, to the skin of the whole body, and to the skin of the extremities, which are:
   (i) A lens dose equivalent of 15 rems (150 mSv), and
   (ii) A shallow-dose equivalent of 50 rems (500 mSv) to the skin of the whole body or to the skin of any extremity

The maximum radiation exposure allowed by the Northwestern College Radiography Program is **0.05 rem** (**50 mrem** or 0.5 mSv) **per quarter**. If this level is reached by any student, the radiography program director will initiate an investigation involving the student, clinical coordinator, and clinical instructor to evaluate the situation and develop an action plan accordingly.

The monitoring of an individual's radiation protection badge is of utmost importance and is a serious matter. If a radiation monitoring badge is damaged or lost, the clinical coordinator must be notified to inform the radiation monitoring company of the unusual occurrence. If the company detects an irregular or excessive radiation exposure, the program director will talk with the student to determine the cause of the irregularity. If it was determined that the dosimeter was deliberately tampered with or placed in unusual surroundings (under a fluoroscopy tube or near radiation doses), the student responsible will be dismissed from the program.

Quarterly Radiation Dosimetry Reports are reviewed with students who are required to initial the report to acknowledge receipt of the information. Radiation Dosimetry Reports are maintained in the Radiography Program office.

Reviewed: 4/11/08, 10/12/09, 09/19/13, 07/29/14,
Revised: 04/18/17, 2/11/2018

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

To: Student Radiographers

RE: Declaration of Student Pregnancy Policy and Withdrawal of Declaration of Pregnancy Policy

Instructions Concerning Pregnant Women

Federal regulations require that information and instructions in radiation protection (as appropriate to the situation) are given to individuals working in or frequenting areas in which measures are applied to limit exposure to radiation and radioactive materials. A particular concern is prenatal exposure and the possible biological risk this may present to the embryo/fetus from occupational radiation exposure.

Equally important is the pregnant woman's right to make the decision to declare her pregnancy to her employer, thus entitling her to a restricted dose limit to protect the developing embryo/fetus.

Because clinical education involves assignments of radiography students in these restricted areas, female students are equally entitled to the same information and choices: the right to decide disclosure of their pregnancy and the right to continue their radiologic technology education.

The Decision to Declare Pregnancy

It is the student's choice to declare her pregnancy to the program director. If she chooses to declare her pregnancy, the student will be limited to a lower radiation dose and she will be monitored to assure that this dose is not exceeded throughout the declared pregnancy.

If the student chooses **not** to formally declare her pregnancy, she will not be limited to the lower dose of radiation and monitoring practices. The lower dose limits for pregnant females apply **only** to those declaring their pregnancy in writing.

The Decision to Withdraw Declaration of Pregnancy

The student retains the right to formally withdraw her declaration of pregnancy in writing at any time, if the student so chooses. The Withdrawal of Declaration of Pregnancy form is attached in the handbook. It should be completed by the student and presented to the program director as formal withdrawal of declaration of a student's pregnancy. By revoking the declaration of pregnancy, the lower dose limit to the embryo/fetus no longer applies and will terminate any previous clinical assignment restrictions or provisions that were previously in effect after initial declaration of pregnancy.

Formal Declaration of Pregnancy

A formal declaration of pregnancy must be in writing and contain the following information:

- Your name
- A declaration that you are pregnant
- Estimated date of conception (month and year)
- Date you are declaring pregnancy
- Signature

For convenience and to assure that all required information is recorded, the Program provides a Declaration of Pregnancy form. This form should be completed and presented to the program director as formal declaration of a student pregnancy.

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

Declared Pregnant Student Policy – Page 2

Following Formal Declaration of Pregnancy:

Institution of Lower Dose Limit

Because of the sensitivity of the embryo/fetus to radiation, the lower dose limit is applied to protect the unborn child. Possible effects of radiation to the fetus include deficiencies in the child's development and an increase in the likelihood of cancer.

Because there is a lower dose limit to the amount of radiation an embryo/fetus is allowed to receive, the declared pregnant student/worker is limited to a dose lower than the radiation dose limit set for the radiation worker/student radiographer.

The lower dose limit is in effect until the pregnant student has given birth, informs the program director that she is no longer pregnant or wishes to no longer be considered a declared pregnant student radiographer.

- Radiation Dose Limit for Worker/Student Radiographer (Occupational Annual Dose Limit)
  - **5.0 rems (50 mSv) /year.**

- Declared Pregnant Radiation Worker/Student Radiographer
  - **0.5 rems (500 mRems) (5 mSv)**/ 9 month pregnancy
  - Dose is 1/10 of dose limit of Worker/Student
    Limited to no more than 50 mrems/month of pregnancy

Monitoring Declared Pregnant Student and Fetal Radiation Dose

Following declaration of pregnancy, the declared pregnant student shall be issued a second dosimeter that shall be worn at the waist level to monitor possible radiation exposure to the embryo/fetus. At this time the program director will review the student's radiation exposure records to evaluate the amount of exposure already received since conception. Exposure records include:

- The sum of the external dose to the declared pregnant student.
- The dose received internally to the embryo/fetus and the declared pregnant student.

The student's dosimeter reading reports will be reviewed on a monthly basis by the program director and student. The student's signatures on the report will verify review and discussion of the reports.

Steps to Lower Radiation Dose

Following declaration of pregnancy, steps to lower radiation dose will be reviewed with the student. These steps include:

- Lowering Radiation Dose From External Sources - Principles of ALARA
  - Shortest possible exposure time
  - Increase distance
  - Increase shielding between self and source
  - Radiation Protection on Portable Examinations
  - Review of applicable Program memoranda

Declared Pregnant Student Policy – Page 3

- Lowering Radiation Dose From Internal Sources
  - Wear protective apparel/lab coats from possibility of spill from radioactive materials
  - Use gloves when handling radioactive materials
  - Wash hands after handling radioactive materials
  - Do not eat, drink, smoke, or apply cosmetics in areas with encapsulated radioactive materials
  - Do not pipette radioactive solutions by mouth

Attendance

The clinical and classroom attendance guidelines will be applied. Days of absence will be recorded in the manner as explained within the attendance policy (reference Student Handbook).

Educational Alternatives

- Alternative 1 - Participation in the Educational Program without Modification or Interruption

  The student may elect to continue her radiologic education without modification of courses or disruption. A change in clinical assignment (attendance of clinical courses) may be required should the monthly radiation dose exposure records give rise to concern that meeting the total lower dose limit (500 mRem/9 month pregnancy) or maintaining a uniform monthly dose of 50 mRem or less is at risk.

  - Alternative 2 – Leave of Absence From Clinical Courses/Assignment

  On formal declaration of her pregnancy or at a later time in the pregnancy, the student may elect to continue her classroom courses and take a leave of absence from her clinical courses. The period of the Leave of Absence and the time at which the student resumes her clinical education will be documented and signed by the student and program director to confirm the agreement. The student must complete the requirements for graduation within 150% of program length (starting date of program).

- Alternative 3 - Modification of Clinical Assignments

  The student will be restricted from clinical participation involving procedures and assignments that require students to wear lead aprons and gloves for the purpose of limiting the students' radiation exposure. Because the assignments of fluoroscopy, surgery, portable radiography and special procedures requires that a protective apron be worn by students and personnel in the radiographic room, the assignment of the student to these areas will be restricted. The student must complete the requirements for graduation within 150% of program length (starting date of program).

  Restrictive Clinical Assignments

  Fluoroscopy – The student will not be assigned to the fluoroscopic rotation.
  Surgery – The student will not be assigned to surgical rotation.
  Special Procedures – Assignments will be restricted when including Fluoroscopy.
  Portables – Student participation prohibits the presence of the student in the examining room during radiographic exposure.
  Nuclear Medicine – The student will not be assigned to the Department of Nuclear Medicine.

NORTHWESTERN COLLEGE
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Declared Pregnant Student Policy – Page 4

Educational Alternatives Continued

- Alternative 4 – Leave of Absence From the Program

  The student may elect to take a leave of absence from the program. The period of the Leave of Absence and the anticipated date the student is expected to resume her education will be documented and signed by the student and program director to confirm the agreement. The student must complete the requirements for graduation within 150% of program length (starting date of program).

- Alternative 5 – Voluntary Withdrawal From the Program

  The student may elect to voluntarily withdraw from the program. Should she choose to reapply for admission she must meet the requirements for admission as identified in the most currently published program information.

Records

The exposure records for the embryo/fetus will be maintained with the exposure records of the declared pregnant student. All signature policies, the declared pregnant student's selection of choices and agreements will be maintained in the student's records which are secured in the Program Office.

Acknowledgment of Radiation Risk during Pregnancy

I have read, reviewed and discussed this policy with the program director. I have been given information on the health risks of the embryo/fetus from prenatal exposure to radiation in diagnostic radiology including review of information from the Nuclear Regulatory Commission Guide 8.13 *Instructions Concerning Prenatal Radiation Exposure*. I have also received instructions regarding mutual responsibilities should I formally declare my pregnancy. I acknowledge receipt of this information and understand this policy.

Acknowledgment of:

1. Review of Declaration of Student Pregnancy Policy (Northwestern College School of Health Sciences Radiography Program)

2. Review of Required Radiation Safety Precautions (Northwestern College School of Health Sciences Radiography Program)

3. Review of information from Regulatory Guide 8.13 *Instruction Concerning Prenatal Radiation Exposure* (Nuclear Regulatory Commission, proposed revision 3 to Regulatory Guide 8.13, October 1999).

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

To: Student Radiographers

RE: Declaration of Student Pregnancy Form

Selection of Educational Alternatives

I understand that attendance guidelines of the program will be applied. Clinical and classroom days of absence will be recorded in the manner as explained in the attendance policy (reference Student Handbook). I understand that to graduate from the program I must meet all educational requirements within the identified timeframes for their completion (reference Student Handbook).

- Alternative 1 - Participation in the Educational Program without Modification or Interruption

  I elect to continue my radiologic education without modification or disruption of classroom and clinical courses. I accept that a change in clinical assignment (attendance of clinical courses) may be required should my monthly monitored radiation exposure dose or that of the embryo/fetus gives rise to concern that meeting the lower dose limit (500 mRem/9 month pregnancy) or maintenance of a uniform monthly dose of 50 mRem/month or less is at risk.

  _____
  Student Signature Date

  _____
  Program Director Signature Date

- Alternative 2 – Leave of Absence From Clinical Courses/Assignment

  I elect to take a leave of absence from my clinical courses. The period of the Leave of Absence and the time at which I plan to resume my clinical education has been discussed and is documented by my signature, and that of the program director to confirm the agreement. I understand I must complete the requirements for graduation within 150% of program length (starting date of program).

  _____
  Student Signature Date Expected Date of Program Completion

  _____
  Program Director Signature Date Expected Date of Program Completion

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

To: Student Radiographers

RE: Declaration of Student Pregnancy Policy

Selection of Educational Alternatives page 2

- Alternative 3 – Modification of Clinical Assignments

I elect to attend my clinical courses and to participate in clinical assignments in a limited capacity. I will be restricted from clinical participation involving procedures and assignments that require students to wear lead aprons and gloves. Because the assignments of fluoroscopy, surgery, portable radiography and special procedures require that students and personnel wear protective aprons and gloves in the radiographic room, my assignment to these areas will be restricted. I understand I must complete the requirements for graduation within150% of program length (starting date of program).

_____

Student Signature Date Expected Date of Program Completion

_____

Program Director Signature Date Expected Date of Program Completion

- Alternative 4 – Leave of Absence From the Program

I elect to take a leave of absence from the program. I have signed a Leave of Absence agreement documenting the period of the Leave of Absence and the anticipated date I am expected to resume my studies. I understand that in order to graduate from this program I must complete the requirements for graduation within 150% of program length (starting date of program).

_____

Student Signature Date Expected Date of Program Completion

_____

Program Director Signature Date Expected Date of Program Completion

- Alternative 5 – Voluntary Withdrawal From The Program

I voluntarily (elect to) withdraw from the program. Should I choose to reapply for admission, I must meet the requirements for admission as identified in the most currently published program information.

_____

Student Signature Date

_____

Program Director Signature Date

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES

RADIOGRAPHY PROGRAM

Declaration of Student Pregnancy

DECLARATION OF PREGNANCY FORM

I am declaring that I am pregnant. I believe I became pregnant in _____, _____ (only month and year need be provided).

I understand that my occupational radiation dose during my entire pregnancy will not be allowed to exceed 0.5 rems (5mSv) (unless that dose has already been exceeded between the time of conception and submitting this form). I also understand that meeting the lower dose limit may require a change in clinical assignment during attendance of my clinical courses.

_____

Student Signature Date

_____

Student Name printed

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

Issued by: Catherine J. Guerrero Effective: 04/18/2017
Review/Revision:1/17/2018

To: Student Radiographers

RE: Withdrawal of Declaration of Student Pregnancy Form

WRITTEN WITHDRAWL OF DECLARATION OF PREGNANCY FORM

To: _____
(Program Director or appropriate supervisor in absence of the Director)

A written withdrawal of declaration of pregnancy is required by the student in order to withdrawal pregnancy.

I hereby revoke my declaration of pregnancy and fully understand the lower dose limit to the embryo/fetus no longer applies.

The decision to revoke my declaration of pregnancy is a personal choice that I have made freely and without intervention. I understand that by revoking this declaration it will terminate any previous clinical assignment restrictions or provisions that were previously in effect after my initial declaration of pregnancy.

I have also been made aware of the potential health effects from exposure to ionizing radiation.
(Instruction Concerning Prenatal Radiation Exposure Policy 8.13 may be found at the United States Nuclear Regulatory Commission website www.NRC.gov. This policy has been reviewed with all students and is located in the Program Student Handbook-Clinical Part 2 for reference.)

_____
Student Signature Date

_____

Student Name printed

NORTHWESTERN COLLEGE
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RADIOGRAPHY PROGRAM

To: Student Radiographers

RE: Screening Female Patients for Pregnancy

The following procedures must be followed prior to all x-ray examinations of all female patients between the ages of 10-55 years.

- You must screen for pregnancy by asking the patient the following two questions:

    1. What is the date of the first day of your last menstrual period?
    2. Is there a chance that you might be pregnant?

- Next - If the date of the last menstrual period was more than 28 days prior to date of the requested x-ray examination or if the patient thinks that she might be pregnant (there is a possibility of pregnancy) do the following:

    1. Contact your supervisor and follow the protocol at that clinical site. You will be advised as to whether or not to proceed with the examination.

    2. In all cases, the patient must be shielded and the x-ray beam collimated. This information is recorded on the patient information sheet/requisition. State that the patient was shielded and the x-ray beam was collimated. Date and sign the statement.

- Make certain that you understand the operative pregnancy policy at the clinical site to which you are assigned so that you may practice this policy while in assignment. For example, at Advocate Illinois Masonic Medical Center, screening applies to all female patients between the ages of 10-55 years and the patient needs to initial/sign the request form affirming that the information she has given is correct.

- Students are expected to apply both the Program's policy for screening for pregnancy as well as the operating policy at the clinical site to which they are assigned.

NORTHWESTERN COLLEGE
SCHOOL OF HEALTH SCIENCES
RADIOGRAPHY PROGRAM

MAGNETIC RESONANCE IMAGING (MRI) SAFTEY/SCREENING POLICY
TO: STUDENT RADIOGRAPHERS

PURPOSE

To ensure the safety and protection of our students all students must be made aware of MRI safety precautions before entering an MRI suite. Students are required to fill out an MRI safety questionnaire prior to participating in their clinical practicum for the radiography program. Completion of the screening form will be reviewed by the clinical coordinator of the program. No student will be permitted to participate in specialized MRI rotations without completion of this form which will also be reviewed by an MRI technologist at the clinical setting. MRI rotations are not guaranteed and are only offered at the discretion of the clinical site during the last quarter of a student's clinical practicum.

WHAT IS AN MRI

Magnetic Resonance Imaging (MRI) is a diagnostic imaging test that takes cross sectional images of the body without the use ionizing. The MRI unit uses an extremely powerful magnet and radiofrequency pulses to produce superior images of organs, soft tissue, and anatomic detail of boney structures. However, due to the powerful magnet of the MRI machine, it may be unsafe for people who have metal implant or devices in their bodies to enter an MRI suite. Students who have certain metal implants in their bodies may result in a contraindication for participating in a special procedure rotation in the MRI clinical setting. These students would also be prohibited from entering an MRI suite for any reason, including providing lifting assistance in an MRI suite located in the Imaging Department.

In MRI, the magnetic field is ALWAYS on. The MRI student will comply with each clinical site's policies and procedures pertaining to metallic objects being introduced into the MRI scanning suite. Carrying ferromagnetic articles (iron, nickel, cobalt) or introducing them to the MRI scanning area is strictly prohibited. These objects can become projectiles within the scanning room causing serious injury or death and/or equipment failure.
I have read and fully understand program policy on MRI Safety

_____ _____
Student Signature Date

_____ _____
Student Printed Name Date

***Attached to the signed policy please find MRI safety screening form

Effective: 6/14/2017

MAGNETIC RESONANCE (MR) ENVIRONMENT SCREENING FORM FOR INDIVIDUALS

The MR system has a very strong magnetic field that may be hazardous to individuals entering the MR environment or MR system room if they have certain metallic, electronic, magnetic, or mechanical implants, devices, or objects. Therefore, all individuals are required to fill out this form BEFORE entering the MR environment or MR system room. **Be advised, the MR system magnet is ALWAYS on.**

***NOTE: If you are a patient preparing to undergo an MR examination, you are required to fill out a different form.**

Printed Name _____ Date _____/_____/_____

1. Have you had prior surgery or an operation (e.g., arthroscopy, endoscopy, etc.) of any kind?
   ☐ No ☐ Yes
   If yes, please indicate date and type of surgery: Date ____/____/____ Type of surgery_____
2. Have you had an injury to the eye involving a metallic object (e.g., metallic slivers, foreign body)?
   ☐ No ☐ Yes
   If yes, please describe: _____
3. Have you ever been injured by a metallic object or foreign body (e.g., BB, bullet, shrapnel, etc.)?
   ☐ No ☐ Yes
   If yes, please describe: _____
4. Are you pregnant or suspect that you are pregnant?
   ☐ No ☐ Yes

WARNING: Certain implants, devices, or objects may be hazardous to you in the MR environment or MR system room. **Do not enter the MR environment or MR system room if you have any question or concern regarding an implant, device, or object.**

IMPORTANT INSTRUCTIONS

Please indicate if you have any of the following:

- ☐ Yes ☐ No Cardiac pacemaker
- ☐ Yes ☐ No Aneurysm clip(s)
- ☐ Yes ☐ No Implanted cardioverter defibrillator (ICD)
- ☐ Yes ☐ No Electronic implant or device
- ☐ Yes ☐ No Magnetically-activated implant or device
- ☐ Yes ☐ No Neurostimulation system
- ☐ Yes ☐ No Spinal cord stimulator
- ☐ Yes ☐ No Cochlear implant or implanted hearing aid
- ☐ Yes ☐ No Insulin or infusion pump
- ☐ Yes ☐ No Implanted drug infusion device
- ☐ Yes ☐ No Any type of prosthesis or implant
- ☐ Yes ☐ No Artificial or prosthetic limb
- ☐ Yes ☐ No Any metallic fragment or foreign body
- ☐ Yes ☐ No Any external or internal metallic object
- ☐ Yes ☐ No Hearing aid
- ☐ Yes ☐ No Other implant_____
- ☐ Yes ☐ No Other device_____

Remove <u>all</u> metallic objects before entering the MR environment or MR system room including hearing aids, beeper, cell phone, keys, eyeglasses, hair pins, barrettes, jewelry (including body piercing jewelry), watch, safety pins, paperclips, money clip, credit cards, bank cards, magnetic strip cards, coins, pens, pocket knife, nail clipper, steel-toed boots/shoes, and tools. Loose metallic objects are especially prohibited in the MR system room and MR environment.

Please consult the MRI Technologist or Radiologist if you have any question or concern BEFORE you enter the MR system room.

I attest that the above information is correct to the best of my knowledge. I have read and understand the entire contents of this form and have had the opportunity to ask questions regarding the information on this form.

Signature of Person Completing Form: _____ Date _____/_____/_____
Signature

Form Information Reviewed By:

_____ _____
Print name Signature

Regulatory Guide 8.13 - Instruction Concerning Prenatal Radiation Exposure
(Draft was issued as DG-8014)
Revision 3 June 1999Availability Notice.

A. INTRODUCTION

The Code of Federal Regulations in 10 CFR Part 19, "Notices, Instructions and Reports to Workers: Inspection and Investigations," in Section 19.12, "Instructions to Workers," requires instruction in "the health protection problems associated with exposure to radiation and/or radioactive material, in precautions or procedures to minimize exposure, and in the purposes and functions of protective devices employed." The instructions must be "commensurate with potential radiological health protection problems present in the work place."

The Nuclear Regulatory Commission's (NRC's) regulations on radiation protection are specified in 10 CFR Part 20, "Standards for Protection Against Radiation"; and Section 20.1208, "Dose to an Embryo/Fetus," requires licensees to "ensure that the dose to an embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv)." Section 20.1208 also requires licensees to "make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman." A declared pregnant woman is defined in 10 CFR 20.1003 as a woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception.

This regulatory guide is intended to provide information to pregnant women, and other personnel, to help them make decisions regarding radiation exposure during pregnancy. This Regulatory Guide 8.13 supplements Regulatory Guide 8.29 , "Instruction Concerning Risks from Occupational Radiation Exposure" (Ref. 1), which contains a broad discussion of the risks from exposure to ionizing radiation.

Other sections of the NRC's regulations also specify requirements for monitoring external and internal occupational dose to a declared pregnant woman. In 10 CFR 20.1502, "Conditions Requiring Individual Monitoring of External and Internal Occupational Dose," licensees are required to monitor the occupational dose to a declared pregnant woman, using an individual monitoring device, if it is likely that the declared pregnant woman will receive, from external sources, a deep dose equivalent in excess of 0.1 rem (1 mSv). According to Paragraph (e) of 10 CFR 20.2106, "Records of Individual Monitoring Results," the licensee must maintain records of dose to an embryo/fetus if monitoring was required, and the records of dose to the embryo/fetus must be kept with the records of dose to the declared pregnant woman. The declaration of pregnancy must be kept on file, but may be maintained separately from the dose records. The licensee must retain the required form or record until the Commission terminates each pertinent license requiring the record.

The information collections in this regulatory guide are covered by the requirements of 10 CFR Parts 19 or 20, which were approved by the Office of Management and Budget, approval numbers 3150-0044 and 3150-0014, respectively. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

B. DISCUSSION

As discussed in Regulatory Guide 8.29 (Ref. 1) , exposure to any level of radiation is assumed to carry with it a certain amount of risk. In the absence of scientific certainty regarding the relationship between low dose exposure and health effects, and as a conservative assumption for radiation protection purposes, the scientific community generally assumes that any exposure to ionizing radiation may cause undesirable

biological effects and that the likelihood of these effects increases as the dose increases. At the occupational dose limit for the whole body of 5 rem (50 mSv) per year, the risk is believed to be very low. The magnitude of risk of childhood cancer following in utero exposure is uncertain in that both negative and positive studies have been reported. The data from these studies "are consistent with a lifetime cancer risk resulting from exposure during gestation which is two to three times that for the adult" (NCRP Report No. 116, Ref. 2). The NRC has reviewed the available scientific literature and has concluded that the 0.5 rem (5 mSv) limit specified in 10 CFR 20.1208 provides an adequate margin of protection for the embryo/fetus. This dose limit reflects the desire to limit the total lifetime risk of leukemia and other cancers associated with radiation exposure during pregnancy.

In order for a pregnant worker to take advantage of the lower exposure limit and dose monitoring provisions specified in 10 CFR Part 20, the woman must declare her pregnancy in writing to the licensee. A form letter for declaring pregnancy is provided in this guide or the licensee may use its own form letter for declaring pregnancy. A separate written declaration should be submitted for each pregnancy.

C. REGULATORY POSITION

1.Who Should Receive Instruction

Female workers who require training under 10 CFR 19.12 should be provided with the information contained in this guide. In addition to the information contained in Regulatory Guide 8.29 (Ref. 1), this information may be included as part of the training required under 10 CFR 19.12.

2.Providing Instruction

The occupational worker may be given a copy of this guide with its Appendix, an explanation of the contents of the guide, and an opportunity to ask questions and request additional information. The information in this guide and Appendix should also be provided to any worker or supervisor who may be affected by a declaration of pregnancy or who may have to take some action in response to such a declaration. Classroom instruction may supplement the written information. If the licensee provides classroom instruction, the instructor should have some knowledge of the biological effects of radiation to be able to answer questions that may go beyond the information provided in this guide. Videotaped presentations may be used for classroom instruction. Regardless of whether the licensee provides classroom training, the licensee should give workers the opportunity to ask questions about information contained in this Regulatory Guide 8.13. The licensee may take credit for instruction that the worker has received within the past year at other licensed facilities or in other courses or training.

3.Licensee's Policy on Declared Pregnant Women

The instruction provided should describe the licensee's specific policy on declared pregnant women, including how those policies may affect a woman's work situation. In particular, the instruction should include a description of the licensee's policies, if any, that may affect the declared pregnant woman's work situation after she has filed a written declaration of pregnancy consistent with 10 CFR 20.1208.

The instruction should also identify who to contact for additional information as well as identify who should receive the written declaration of pregnancy. The recipient of the woman's declaration may be identified by name (e.g., John Smith), position (e.g., immediate supervisor, the radiation safety officer), or department (e.g., the personnel department).

4.Duration of Lower Dose Limits for the Embryo/Fetus

The lower dose limit for the embryo/fetus should remain in effect until the woman withdraws the declaration in writing or the woman is no longer pregnant. If a declaration of pregnancy is withdrawn, the dose limit for the embryo/fetus would apply only to the time from the estimated date of conception until the time the declaration is withdrawn. If the declaration is not withdrawn, the written declaration may be considered expired one year after submission.

5.Substantial Variations Above a Uniform Monthly Dose Rate

According to 10 CFR 20.1208(b), "The licensee shall make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman so as to satisfy the limit in paragraph (a) of this section," that is, 0.5 rem (5 mSv) to the embryo/fetus. The National Council on Radiation Protection and Measurements (NCRP) recommends a monthly equivalent dose limit of 0.05 rem (0.5 mSv) to the embryo/fetus once the pregnancy is known (Ref. 2). In view of the NCRP recommendation, any monthly

dose of less than 0.1 rem (1 mSv) may be considered as not a substantial variation above a uniform monthly dose rate and as such will not require licensee justification. However, a monthly dose greater than 0.1 rem (1 mSv) should be justified by the licensee.

D. IMPLEMENTATION

The purpose of this section is to provide information to licensees and applicants regarding the NRC staff's plans for using this regulatory guide.

Unless a licensee or an applicant proposes an acceptable alternative method for complying with the specified portions of the NRC's regulations, the methods described in this guide will be used by the NRC staff in the evaluation of instructions to workers on the radiation exposure of pregnant women.

REFERENCES

1. USNRC, "Instruction Concerning Risks from Occupational Radiation Exposure," Regulatory Guide 8.29, Revision 1 , February 1996.

2. National Council on Radiation Protection and Measurements, Limitation of Exposure to Ionizing Radiation, NCRP Report No. 116, Bethesda, MD, 1993.

APPENDIX: QUESTIONS AND ANSWERS CONCERNING PRENATAL RADIATION EXPOSURE

1.Why am I receiving this information?

The NRC's regulations (in 10 CFR 19.12, "Instructions to Workers") require that licensees instruct individuals working with licensed radioactive materials in radiation protection as appropriate for the situation. The instruction below describes information that occupational workers and their supervisors should know about the radiation exposure of the embryo/fetus of pregnant women.

The regulations allow a pregnant woman to decide whether she wants to formally declare her pregnancy to take advantage of lower dose limits for the embryo/fetus. This instruction provides information to help women make an informed decision whether to declare a pregnancy.

2.If I become pregnant, am I required to declare my pregnancy?

No. The choice whether to declare your pregnancy is completely voluntary. If you choose to declare your pregnancy, you must do so in writing and a lower radiation dose limit will apply to your embryo/fetus. If you choose not to declare your pregnancy, you and your embryo/fetus will continue to be subject to the same radiation dose limits that apply to other occupational workers.

3.If I declare my pregnancy in writing, what happens?

If you choose to declare your pregnancy in writing, the licensee must take measures to limit the dose to your embryo/fetus to 0.5 rem (5 millisievert) during the entire pregnancy. This is one-tenth of the dose that an occupational worker may receive in a year. If you have already received a dose exceeding 0.5 rem (5 mSv) in the period between conception and the declaration of your pregnancy, an additional dose of 0.05 rem (0.5 mSv) is allowed during the remainder of the pregnancy. In addition, 10 CFR 20.1208, "Dose to an Embryo/Fetus," requires licensees to make efforts to avoid substantial variation above a uniform monthly dose rate so that all the 0.5 rem (5 mSv) allowed dose does not occur in a short period during the pregnancy. This may mean that, if you declare your pregnancy, the licensee may not permit you to do some of your normal job functions if those functions would have allowed you to receive more than 0.5 rem, and you may not be able to have some emergency response responsibilities.

4.Why do the regulations have a lower dose limit for the embryo/fetus of a declared pregnant woman than for a pregnant worker who has not declared?

A lower dose limit for the embryo/fetus of a declared pregnant woman is based on a consideration of greater sensitivity to radiation of the embryo/fetus and the involuntary nature of the exposure. Several scientific advisory groups have recommended (References 1 and 2) that the dose to the embryo/fetus be limited to a fraction of the occupational dose limit.

5.What are the potentially harmful effects of radiation exposure to my embryo/fetus?

The occurrence and severity of health effects caused by ionizing radiation are dependent upon the type and total dose of radiation received, as well as the time period over which the exposure was received. See Regulatory Guide 8.29, "Instruction Concerning Risks from Occupational Exposure" (Ref. 3), for more

information. The main concern is embryo/fetal susceptibility to the harmful effects of radiation such as cancer.

6.Are there any risks of genetic defects?
Although radiation injury has been induced experimentally in rodents and insects, and in the experiments was transmitted and became manifest as hereditary disorders in their offspring, radiation has not been identified as a cause of such effect in humans. Therefore, the risk of genetic effects attributable to radiation exposure is speculative. For example, no genetic effects have been documented in any of the Japanese atomic bomb survivors, their children, or their grandchildren.

7.What if I decide that I do not want any radiation exposure at all during my pregnancy?
You may ask your employer for a job that does not involve any exposure at all to occupational radiation dose, but your employer is not obligated to provide you with a job involving no radiation exposure. Even if you receive no occupational exposure at all, your embryo/fetus will receive some radiation dose (on average 75 mrem (0.75 mSv)) during your pregnancy from natural background radiation.
The NRC has reviewed the available scientific literature and concluded that the 0.5 rem (5 mSv) limit provides an adequate margin of protection for the embryo/fetus. This dose limit reflects the desire to limit the total lifetime risk of leukemia and other cancers. If this dose limit is exceeded, the total lifetime risk of cancer to the embryo/fetus may increase incrementally. However, the decision on what level of risk to accept is yours. More detailed information on potential risk to the embryo/fetus from radiation exposure can be found in References 2-10.

8.What effect will formally declaring my pregnancy have on my job status?
Only the licensee can tell you what effect a written declaration of pregnancy will have on your job status. As part of your radiation safety training, the licensee should tell you the company's policies with respect to the job status of declared pregnant women. In addition, before you declare your pregnancy, you may want to talk to your supervisor or your radiation safety officer and ask what a declaration of pregnancy would mean specifically for you and your job status.
In many cases you can continue in your present job with no change and still meet the dose limit for the embryo/fetus. For example, most commercial power reactor workers (approximately 93%) receive, in 12 months, occupational radiation doses that are less than 0.5 rem (5 mSv) (Ref. 11). The licensee may also consider the likelihood of increased radiation exposures from accidents and abnormal events before making a decision to allow you to continue in your present job.
If your current work might cause the dose to your embryo/fetus to exceed 0.5 rem (5 mSv), the licensee has various options. It is possible that the licensee can and will make a reasonable accommodation that will allow you to continue performing your current job, for example, by having another qualified employee do a small part of the job that accounts for some of your radiation exposure.

9.What information must I provide in my written declaration of pregnancy?
You should provide, in writing, your name, a declaration that you are pregnant, the estimated date of conception (only the month and year need be given), and the date that you give the letter to the licensee. A form letter that you can use is included at the end of these questions and answers. You may use that letter, use a form letter the licensee has provided to you, or write your own letter.

10.To declare my pregnancy, do I have to have documented medical proof that I am pregnant?
NRC regulations do not require that you provide medical proof of your pregnancy. However, NRC regulations do not preclude the licensee from requesting medical documentation of your pregnancy, especially if a change in your duties is necessary in order to comply with the 0.5 rem (5 mSv) dose limit.

11.Can I tell the licensee orally rather than in writing that I am pregnant?
No. The regulations require that the declaration must be in writing.

12.If I have not declared my pregnancy in writing, but the licensee suspects that I am pregnant, do the lower dose limits apply?
No. The lower dose limits for pregnant women apply only if you have declared your pregnancy in writing. The United States Supreme Court has ruled (in United Automobile Workers International Union v. Johnson Controls, Inc., 1991) that "Decisions about the welfare of future children must be left to the parents who conceive, bear, support, and raise them rather than to the employers who hire those parents" (Reference 7). The Supreme Court also ruled that your employer may not restrict you from a specific job "because of concerns about the next generation." Thus, the lower limits apply only if you choose to declare your pregnancy in writing.

13.If I am planning to become pregnant but am not yet pregnant and I inform the licensee of that in writing, do the lower dose limits apply?
No. The requirement for lower limits applies only if you declare in writing that you are already pregnant.

14.What if I have a miscarriage or find out that I am not pregnant?
If you have declared your pregnancy in writing, you should promptly inform the licensee in writing that you are no longer pregnant. However, if you have not formally declared your pregnancy in writing, you need not inform the licensee of your nonpregnant status.

15.How long is the lower dose limit in effect?
The dose to the embryo/fetus must be limited until you withdraw your declaration in writing or you inform the licensee in writing that you are no longer pregnant. If the declaration is not withdrawn, the written declaration may be considered expired one year after submission.

16.If I have declared my pregnancy in writing, can I revoke my declaration of pregnancy even if I am still pregnant?
Yes, you may. The choice is entirely yours. If you revoke your declaration of pregnancy, the lower dose limit for the embryo/fetus no longer applies.

17.What if I work under contract at a licensed facility?
The regulations state that you should formally declare your pregnancy to the licensee in writing. The licensee has the responsibility to limit the dose to the embryo/fetus.

18.Where can I get additional information?
The references to this Appendix contain helpful information, especially Reference 3, NRC's Regulatory Guide 8.29, "Instruction Concerning Risks from Occupational Radiation Exposure," for general information on radiation risks. The licensee should be able to give this document to you.
For information on legal aspects, see Reference 7, "The Rock and the Hard Place: Employer Liability to Fertile or Pregnant Employees and Their Unborn Children--What Can the Employer Do?" which is an article in the journal Radiation Protection Management.

You may telephone the NRC Headquarters at (301) 415-7000. Legal questions should be directed to the Office of the General Counsel, and technical questions should be directed to the Division of Industrial and Medical Nuclear Safety.
You may also telephone the NRC Regional Offices at the following numbers: Region I, (610) 337-5000; Region II, (404) 562-4400; Region III, (630) 829-9500; and Region IV, (817) 860-8100. Legal questions should be directed to the Regional Counsel, and technical questions should be directed to the Division of Nuclear Materials Safety.

REFERENCES FOR APPENDIX
1. National Council on Radiation Protection and Measurements, Limitation of Exposure to Ionizing Radiation, NCRP Report No. 116, Bethesda, MD, 1993.
2. International Commission on Radiological Protection, 1990 Recommendations of the International Commission on Radiological Protection, ICRP Publication 60, Ann. ICRP 21: No. 1-3, Pergamon Press, Oxford, UK, 1991.

3. USNRC, "Instruction Concerning Risks from Occupational Radiation Exposure," Regulatory Guide 8.29, Revision 1, February 1996.(1) (Electronically available at http://www.nrc.gov/reading-rm/doc-collections/reg-guides/)
4. Committee on the Biological Effects of Ionizing Radiations, National Research Council, Health Effects of Exposure to Low Levels of Ionizing Radiation (BEIR V), National Academy Press, Washington, DC, 1990.
5. United Nations Scientific Committee on the Effects of Atomic Radiation, Sources and Effects of Ionizing Radiation, United Nations, New York, 1993.
6. R. Doll and R. Wakeford, "Risk of Childhood Cancer from Fetal Irradiation," The British Journal of Radiology, 70, 130-139, 1997.
7. David Wiedis, Donald E. Jose, and Timm O. Phoebe, "The Rock and the Hard Place: Employer Liability to Fertile or Pregnant Employees and Their Unborn Children--What Can the Employer Do?" Radiation Protection Management, 11, 41-49, January/February 1994.
8. National Council on Radiation Protection and Measurements, Considerations Regarding the Unintended Radiation Exposure of the Embryo, Fetus, or Nursing Child, NCRP Commentary No. 9, Bethesda, MD, 1994.
9. National Council on Radiation Protection and Measurements, Risk Estimates for Radiation Protection, NCRP Report No. 115, Bethesda, MD, 1993.
10. National Radiological Protection Board, Advice on Exposure to Ionising Radiation During Pregnancy, National Radiological Protection Board, Chilton, Didcot, UK, 1998.
11. M.L. Thomas and D. Hagemeyer, "Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities, 1996," Twenty-Ninth Annual Report, NUREG-0713, Vol. 18, USNRC, 1998.(2)

REGULATORY ANALYSIS

A separate regulatory analysis was not prepared for this regulatory guide. A regulatory analysis prepared for 10 CFR Part 20, "Standards for Protection Against Radiation" (56 FR 23360), provides the regulatory basis for this guide and examines the costs and benefits of the rule as implemented by the guide. A copy of the "Regulatory Analysis for the Revision of 10 CFR Part 20" (PNL-6712, November 1988) is available for inspection and copying for a fee at the NRC Public Document Room, 2120 L Street NW, Washington, DC, as an enclosure to Part 20 (56 FR 23360).

1. Single copies of regulatory guides, both active and draft, and draft NUREG documents may be obtained free of charge by writing the Reproduction and Distribution Services Section, OCIO, USNRC, Washington, DC 20555-0001, or by fax to (301)415-2289, or by email to (DISTRIBUTION@NRC.GOV). Active guides may also be purchased from the National Technical Information Service on a standing order basis. Details on this service may be obtained by writing NTIS, 5285 Port Royal Road, Springfield, VA 22161. Copies of active and draft guides are available for inspection or copying for a fee from the NRC Public Document Room at 2120 L Street NW., Washington, DC; the PDR's mailing address is Mail Stop LL-6, Washington, DC 20555; telephone (202)634-3273; fax (202)634-3343.
2. Copies are available at current rates from the U.S. Government Printing Office, P.O. Box 37082, Washington, DC 20402-9328 (telephone (202)512-1800); or from the National Technical Information Service by writing NTIS at 5285 Port Royal Road, Springfield, VA 22161. Copies are available for inspection or copying for a fee from the NRC Public Document Room at 2120 L Street NW., Washington, DC; the PDR's mailing address is Mail Stop LL-6, Washington, DC 20555; telephone (202)634-3273; fax (202)634-3343.

***Excerpt taken from the United States Nuclear Regulatory Commission at www.NRC.gov

ARRT DEFINED COMPETENCY REQUIREMENTS

ARRT Board Approved: January 2016
Effective: January 2017

Introduction

Candidates for certification are required to meet the Professional Education Requirements specified in Article II of the ARRT Rules and Regulations. This document identifies the minimum didactic and clinical competency requirements for certification referenced in the Rules and Regulations. Candidates who complete a formal educational program accredited by a mechanism acceptable to the ARRT will have obtained education and experience beyond the requirements specified here.

Didactic Requirements

The purpose of didactic competency requirements is to verify that individuals had the opportunity to develop fundamental knowledge, integrate theory into practice and hone affective and critical thinking skills required to demonstrate professional competency. Candidates must successfully complete coursework addressing the topics listed in the ARRT Content Specifications for the Radiography Examination. These topics would typically be covered in a nationally recognized curriculum such as the ASRT Radiography Curriculum. Educational programs accredited by a mechanism acceptable to ARRT generally offer education and experience beyond the minimum requirements specified here.

Clinical Requirements

The purpose of the clinical competency requirements is to verify that individual certified and registered by ARRT have demonstrated competency performing the clinical activities fundamental to a particular discipline. Competent performance of these fundamental activities, in conjunction with mastery of the cognitive knowledge and skills covered by the radiography examination, provides the basis for the acquisition of the full range of procedures typically required in a variety of settings. Demonstration of clinical competence means that the candidate has performed the procedure independently, consistently, and effectively during the course of his or her formal education.

Radiography-Specific Requirements

As part of the educational program, candidate must demonstrate competence in the clinical activities identified below

- 10 mandatory general patient care activities.
- 37 mandatory imaging procedures.
- 15 elective imaging procedures to be selected from a list of 34 procedures.
- One of the 15 elective imaging procedure must be selected from the head section.
- Two of the 15 elective imaging procedures must be selected from the fluoroscopy studies section, one of which must be either an Upper GI Contrast Enema.

Documentation

To document that the didactic and clinical requirements have been satisfied by a candidates the program director (and authorized faculty member if required) must sign the ENDORSEMENT SECTION of the Application for Certification and Registration included in the Certification and Registration Handbook.

***Excerpt taken from the ARRT website: https://www.arrt.org/Handbooks
Direct link to content referenced above: https://www.arrt.org/docs/default-source/discipline-documents/radiography/rad-competency-requirements.pdf?sfvrsn=20

THE DO's AND DON'Ts LIST

DOs

Do be on time and in your proper assignment.

Do wear full-body lead-lined aprons during fluoroscopy and portable examinations.

Do wear lead-lined gloves when asked to assist a radiologist during fluoroscopy.

Do wear protective gloves during all fluoroscopic procedures.

Do wear your dosimeter at collar level at all times.

Do stand behind the protective wall barrier when making an exposure.

Do knock on the x-ray room door before entering.

Do, ALWAYS, protect patients with leaded shielding over the pelvis whenever possible.

Do, ALWAYS, collimate or cone down the x-ray beam to the proper field size.

Do use lead markers for proper identification, as the radiographic image is a medicolegal document.

Do take responsibility for your mistakes.

Do think before you speak.

Do practice standard precautions. Use PPE when appropriate, i.e., gloves, masks with shield, gown, during all possible exposures to blood and body fluids.

Do practice the radiation exposure principle As Low As Reasonably Achievable (ALARA).

- Shortest possible exposure time
- Use of appropriate distance and collimation
- Use of appropriate shielding

Do remember to clear patient information from computer screen.

Do apply clinical site specific exposure/sensitivity range values for maximum image quality and minimal patient exposure.

DON'Ts

Don't be tardy.

Don't leave your assignment without notification.

Don't remain in the x-ray examination room during an exposure.

Don't hold a patient under any circumstances during radiation exposure (exception may be fluoroscopic examinations).

Don't walk in an examination x-ray room before you have knocked.

Don't leave the x-ray door open during radiation exposure.

Don't give your dosimeter to someone else to wear.

Don't leave your dosimeter in a radiographic room.

Don't do a portable examination without a full lead apron.

Don't blame someone else for your mistakes.

Don't complain about the equipment, Program, Diagnostic Imaging Department or Clinical Site within hearing of patients or visitors.

Don't speak without thinking.

Don't lock the x-ray room while with a patient.

Don't turn around/expose backside in fluoroscopy.

Don't share your ID markers.

Don't substitute computer-generated right and left markers on images in place of applied lead markers.

Don't leave patient information on computer screen.

Northwestern College School of Health Sciences
Radiography Program
Pre-arranged Absence Request Form

Requestor Name:_____ Date Filled Out/Submitted:_____

Check One: _____Pre-arranged Time Off Request

Example: Day: Tues Date: 09-08-07 Site & Assignment: IMMC, Fluoro Time Requested: 12:00 pm-4:00 pm Hours Taken: 4 hrs.

Day: _____ Date: _____ Site & Assign _____

Time requested _____ Hrs. taken : _____

Day: _____ Date: _____ Site & Assign _____

Time requested _____ Hrs. taken : _____

Day: _____ Date: _____ Site & Assign _____

Time requested _____ Hrs. taken : _____

Day: _____ Date: _____ Site & Assign _____

Time requested _____ Hrs. taken : _____

To be completed by Clinical Coordinator/Director:

Current Bank of Unused Hours _____ Hours Off Granted _____

Remaining Bank of Unused Hours _____

To be completed by Clinical Coordinator/Director:

Requested Dates and/or Time Approved: _____ Not Approved _____

_____

Clinical Coordinator/Director Signature Date

Patient Identification Procedure

As dictated by the specific clinical site protocols.

Clinical Incident Report

As dictated by the specific clinical site protocols.

All clinical incidents must be reported to the program by the clinical instructor/supervisor

Northwestern College
School of Health Sciences – Radiography Program

Student Handbook Receipt

I have read and reviewed a copy of the NORTHWESTERN COLLEGE SCHOOL OF HEALTH SCIENCES RADIOGRAPHY PROGRAM STUDENT HANDBOOK. I will further familiarize myself with the information and policies contained in the Handbook and College Catalog. I acknowledge the Student Handbook can be found on the electronic reporting system Trajecsys, as well as, on the College Website. Additionally, I am aware the College Catalog is located on the NC Student Hub and the College Website. I understand this information constitutes the regulating and behavioral guidelines of the Program and that I am governed by these statements. I accept responsibility for knowing the Radiography Program Student Handbook and College Catalog contents and understand that I must abide by the expectations, requirements, and policies found therein. I understand that failure to follow any of the policies in the Radiography Program Student Handbook and College Catalog may result in my dismissal from the program. In addition to these guides, I am accountable for adherence to policies and protocols specific to each clinical site.

I give permission to the radiography program to survey my future employer as part of the radiography program's assessment process. I understand that this information will be kept confidential and will be used solely for the purpose of evaluating the effectiveness of the program meeting its goals.

Policies are subject to change. Notice will be given if and when changes are made.

Signature of Student:_____Date_____