2018-2019

Radiography Program
Student Handbook

Clarkson College

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Clarkson College complies with all applicable federal, state and local laws relating to discrimination and does not discriminate on the basis of race, color, religion, ancestry, sexual orientation, physical or mental disability, age, national origin, ethnicity, sex, veteran's status or marital status in the administration of its educational programs and policies, financial aid, activities or other school administered programs. Questions regarding Title IX may be referred to the Title IX coordinator or to the Office of Civil Rights. The Director of Student Services serves as the Title IX Coordinator and is located in the Success Center. The Title IX Coordinator can be contacted at 402.552.2693 or at 1.800.647.5500. The Office of Civil Rights can be contacted at the US Department of Education, Office of Civil Rights, Lyndon Baines Johnson Department of Education Bldg., 400 Maryland Avenue, SW, Washington D.C., 20202-1100; the phone number is 1.800.421.3481, and the email address is OCR@ed.gov. Questions regarding other types of discrimination should be directed to the Director of Human Resources, Deb Tomek, at tomekdeb@clarksoncollege.edu. Questions regarding accommodations for student disabilities should be directed to the Accommodations Coordinator at accommodations@clarksoncollege.edu.

Clarkson College
101 South 42 St. Omaha, NE 68131-2739 **PH** 402 552 3100 **TF** 800 647 5500 ClarksonCollege.edu

The information in this handbook is intended to complement existing College policies. Students can also refer to the Academic Catalog and Handbook for academic information. Clarkson College reserves the right to amend, alter, change, or modify the provisions of this handbook at any time and in any manner that the Radiography Program, Administration or Board of Directors deems is in the best interest of Clarkson College and its students.

Radiography Program
Student Handbook
2018-2019
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INTRODUCTION

A. Welcome

Welcome to the Clarkson College Radiography Program! The College is committed in providing you with a rewarding experience as you attain your goal of becoming a Radiologic Technologist.

There are three clinical semester experiences which provide the student the opportunity to apply concepts learned on campus to the clinical setting. The student will be required to prove competency during all three clinical experiences.

B. Purpose of the Handbook

This manual will provide information on the policies and conduct of students in the program and dress codes in the clinical areas for the program.

PLEASE READ ALL THE MATERIAL CAREFULLY.

C. College Mission & Values

Mission

The Mission of Clarkson College is preparing students to professionally provide high quality, ethical, and compassionate health care services.

Values

Learning – The lifelong process of education through both structured and unstructured experiences.

Caring – An empowering relationship through an attitude of empathy, compassion and respect for those with whom we interact and serve.

Commitment – Dedication and accountability to the shared mission of the Clarkson College

Integrity – Adherence to moral and ethical standards in personal, professional and organizational actions.

Excellence – A level of performance in which all individuals strive for extraordinary quality.

D. Program Mission

The Radiography Program at Clarkson College is designed to provide a high-quality, diverse educational experience rich in both professional and general coursework. Students of the program will be prepared to enter the Radiography profession and to demonstrate good ethical judgment and compassion in the delivery of patient care. The Radiography students are expected to adhere to all professional and ethical standards set forth by the American Society of Radiologic Technologists.

The Radiography Program meets its mission by providing an optimal environment for students learning the delivery of quality health care in a variety of clinical settings. The program offers a broad educational experience, which enables students to apply theoretical learning to clinical practice. Students develop the necessary critical thinking

and communication skills for becoming an integral member of the health care team. The program prepares students who are concerned with the improvement of the quality of life, which is consistent with the College Mission.

E. Clarkson College Student Success Skills

1. Communication
2. Critical Thinking
3. Technology
4. Diversity
5. Professional Behavior

F. Program Goals

Upon completion of the Associate of Science in Radiography, graduates will:

1. have entry level radiography skills.
2. communicate effectively.
3. use critical thinking skills.
4. demonstrate professionalism.

G. Program Description

Radiologic Technologists provide diagnostic services for patients using state-of-the-art medical imaging equipment. Medical images produced by radiographers are then sent to physicians for diagnostic interpretation. Radiologic Technologists are employed by hospitals, imaging facilities, urgent care clinics, private physician's offices and other health care facilities. There are also opportunities in industry, civil services, public health care services and international health care organizations. Opportunities abound in management and in education at the collegiate level for those appropriately prepared.

Graduates of the program will be able to sit for the national certification examination in radiography administered by the American Registry of Radiologic Technologists (ARRT). After successful completion of this examination, the individual will be a Certified and Registered Technologist, RT(R)(ARRT). In addition, some states may require licensure to practice.

H. My Path:

My Path is an online guidebook created to ease your transition as a new student at Clarkson College. The guidebook gives students an overview of where to begin and what to expect as an official new student in the Radiography program. Visit My Path to familiarize yourself with the information.

I. ACCREDITATION

A. College

Clarkson College has regional accreditation by the Higher Learning Commission

Higher Learning Commission
230 South LaSalle Street, Suite 7-500Chicago, Illinois 60604-1411
www.hlcommission.org

B. Radiography Program

The program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

Joint Review Committee on Education in Radiologic Technology
20 North Wacker Drive, Suite 2850
Chicago, Illinois 60606-3182
(312) 704-5300
www.jrcert.org

2018-2019

Radiography Program and Clinical Experience

Clarkson College

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II. PROGRAM AND CLINICAL EXPERIENCE

A. Clinical Setting

The purpose of clinical instruction in Radiography is to allow the student to apply theoretic principles of radiography, patient care and departmental procedures to practical experience. Students will have the status of learners and will not replace members of the affiliating clinical facility's staff.

While in the clinical department, the student is required to observe the regulations imposed by the affiliating clinical facility on its employees in connection with patient welfare. If a student is unable to attend clinical, the student must call the clinical coordinator and the clinical liaison at the affiliating clinical site prior to reporting to the clinical facility. Time lost due to absence(s) will be made up. Extended leaves of absence must be justifiable and the time lost by the student will be made up accordingly.

Each clinical site has a designated clinical liaison, which serves as the student's instructor and supervisor. These individuals are responsible for ensuring that the clinical objectives are met and that a supervised clinical environment is maintained.

While performing various clinical duties, the student is directly responsible to the staff member of the affiliating clinical facility in charge of the room to which the student is assigned. Should any operational or personality problems arise, a resolution on this level is preferred. If the student is dissatisfied with such action, the clinical liaison should be consulted. If the student needs further aid in solving any problems, the matter should be discussed with the clinical coordinator. (See Due Process Section).

The student will progress from the role of observer and assistant to relative independence according to his/her initiative and interest, and at the discretion of the supervising staff technologist. The student is under direct supervision until s/he has successfully completed the competency for the examination being performed. **Direct supervision** means that the clinical liaison or a registered technologist is physically present in the room assisting and/or supervising the performance of the radiographic procedure. Once the student has successfully completed a competency, they may perform that examination/procedure under indirect supervision. However, mobile/portable, surgical and repeat examinations MUST always be performed under direct supervision (even if the student has successfully completed a psychomotor competency). **Indirect supervision** means that the student may perform the procedure independently without an instructor or technologist present in the room (with exception of surgical, portable and repeat procedures). However, an instructor or registered technologist must be immediately available in the clinical area. If a student has a question or encounters difficulty with a patient, they should be able to "yell" for help and have an immediate response from a supervising radiologic technologist.

Any student that does not follow the Direct/Indirect Supervision guidelines will be subject to the Disciplinary Action Policy and Procedure process.

Students will be graded and evaluated in the clinical setting by use of Affective, Psychomotor and Cognitive Evaluations (See Sample Form Section). The student's final grade will constitute one-third cognitive, one-third psychomotor, and one-third affective evaluation. A passing grade (as outlined in each syllabus) is required in all three categories. In the event a student does not have a passing grade in all three categories, the student will not be permitted to progress to a higher level of coursework in the radiography program.

Clarkson College utilizes the following clinical sites for students in the Radiography program and students may be assigned to any of the following clinical sites. Each student will complete minimum of two clinical rotations. Clinical rotations include limited evening, weekend, and overnight shifts. Changes in clinical sites may occur; additional clinical sites may be added and/or discontinued at the program's discretion. Travel to the clinical site is the student's responsibility. Mileage for each site is listed below. One-way calculations have been determined from Clarkson College to the clinical site through MapQuest.

Advanced Medical Imaging (AMI) Lincoln, Neb**.** 55 MILES
Beatrice Community Hospital and Health Care Center Beatrice, Neb. 97.29 MILES
Boys Town National Research Hospital Omaha, Neb. 10 MILES
Cass County Memorial Hospital Atlantic, Iowa 74.57 MILES
Children's Hospital & Medical Center Omaha, Neb. 3.48 MILES
Children's Hospital & Medical Center – Val Verde LaVista, NE 16 MILES
Children's Hospital & Medical Center – West Village Point Omaha, NE. 12 MILES
Children's Hospital & Medical Center Lincoln, NE. 55 MILES
CHI Health St. Mary's Nebraska City, Neb. 52.96 MILES
Clarkson Family Medicine, NE Medicine Omaha, NE 0.1 MILES
Columbus Community Hospital Columbus, Neb. 93.71 MILES
Crete Area Medical Center Crete, Neb. 78.80 MILES
Fremont Health Medical Center Fremont, Neb. 37.68 MILES
Henderson Healthcare Services Henderson, Neb. 114.72 MILES
Memorial Community Hospital Blair, Neb. 27 MILES
Methodist Hospital Omaha, Neb. 3.49 MILES
Montgomery County Memorial Hospital Red Oak, Iowa 57.02 MILES
Nebraska Medicine Omaha, Neb. .21 MILES
Nebraska Medicine - Bellevue Bellevue, Neb. 10.2 MILES
OrthoNebraska – Oakview Medical Building Omaha, Neb. 12.27 MILES
St. Anthony's Regional Hospital Carroll, Iowa 109.63 MILES
Shelby County Myrtue Memorial Hospital Harlan, Iowa 59.16 MILES
Shenandoah Medical Center Shenandoah, Iowa 66.89 MILES
THINK Aksarben, LLC Omaha, Neb. 3.7 MILES
Veterans Health Administration Medical Center Omaha, Neb. 1.19 MILES | Lincoln, Neb. 52.62 MILES
York General Healthcare Services York, Neb 107.49 MILES

B. Program Personnel Description

Radiologist – board certified physician who specializes in the performance and interpretation of radiologic procedures.

Program Director – designs, implements, administers and evaluates the Radiography Program. The program director is responsible for all aspects of the program.

Clinical coordinator – designs, implements and evaluates all aspects of the clinical portion of the curriculum. The clinical coordinator is responsible to the program director.

Didactic Program Faculty – design, implement and instruct various courses within the curriculum. The program faculty is responsible to the program director and include full-time, part-time and adjunct faculty.

Clinical Liaisons – responsible for the supervision, advising and counseling of students in the clinical setting. The clinical liaisons ensure students are following all policies and procedures of the department, the institution and the College.

Staff Technologists – ARRT registered technologists. The staff Technologists are responsible for assisting students in meeting their educational requirements.

C. Clinical Objectives

1. General Radiography

Upon completion, the student will be able to demonstrate knowledge, understanding and dexterity in five areas of general radiography. These areas include: (a) equipment and accessories, (b) radiographic procedures, (c) contrast media, (d) radiographic technique, and (e) radiation protection and other safety practices. An acceptable level of competence has been attained when the student is able to:

a. Equipment and accessories
   - ♦ Manipulate all imaging equipment using the proper procedure without difficulty.
   - ♦ Describe the function of all variables found on the control panel and their effects on the image and/or procedure.
   - ♦ Explain the advantages and disadvantages of equipment characteristic variables (i.e., focal spot, current phase, rectification, timer, tube, anode speed, etc.)
   - ♦ Select and use accessory items appropriately to include:
     - Restraining and supporting devices
     - Cones, collimator, grids and filters

b. Radiographic procedures
   - ♦ Perform and evaluate general radiographic studies from the standpoint of:
     - Radiographic and diagnostic quality
     - Accuracy of interpretation of the request

- Positioning of the anatomic part
- Appropriate IR size
- Adequate x-ray beam limitations
- Correct markers and identifying information

c. Contrast Media
   - ♦ Evaluates patient's chart for lab values and contraindications
   - ♦ Prepares and administers appropriate contrast media according to hospital protocol

d. Radiographic technique
   - ♦ Select the proper technical factors for routine situations and make appropriate adjustments for the unusual case by manipulating the imaging technique. The factors to be altered include:
     - Kilovolts, milliamperes, distance and time
     - Grids
     - Filters
     - Focal spot size
     - Collimation

   - ♦ Understands the following tasks that assures proper equipment functioning:
     - Reproducibility and accuracy of exposure time
     - Reproducibility of exposure
     - Accuracy of kVp
     - Grid – collimator – beam alignment
     - Focal spot size and consistency
     - Automatic exposure control

e. Radiation protection and safety practices
   - ♦ Perform patient handling tasks safely to include:
     - Transporting and transferring patients
     - Checking for patient identification
     - Handling patients with infectious diseases
     - Providing radiation protection for patients, personnel and guests by utilizing protective shields, collimator, filters, patient restraints, and by employing correct technical factors to avoid the necessity for retakes
     - Insuring safety in dimly lighted areas by keeping room furnishings and accessories properly placed and safely positioned
     - Providing safe storage for patient's belongings that are temporarily removed during the procedure, according to institution's protocol

2. Office Procedures and Imaging Records and Files

   Upon completion the student will be able to demonstrate knowledge and understanding in basic (a) archiving and retrieval systems, and (b) modality

worklist/patient schedules and traffic flow patterns. An acceptable level of competence has been attained when the student is able to:

a. Archive and retrieve imaging records
    - ♦ Perform archival and retrieval tasks to include;
        - Ensure correct patient demographics
        - Patient images are sent and archived in PACS correctly
        - Dispatch radiology reports to physicians and other departments
        - Retrieve x-ray reports/images
        - Prepare CD of patient images/reports for dispatching

b. Schedules and traffic flow patterns
    - ♦ Perform tasks relating to worklists/schedules and traffic flow by:
        - Receiving patients and logging patient visits
        - Recording patient data, e.g., type of examination requested, referring physician, hospital or home address, etc.

    - ♦ Assist in scheduling patients by:
        - Ascertaining an appropriate time to coincide with physician schedules
        - Giving patients instructions for test preparation
        - Giving patients brief description of the type of examination

3. Patient Handling Tasks

Throughout all segments of clinical practice the students will develop and utilize the necessary skills in patient care and will have an understanding of radiologic patient services as provided in the clinical setting. This will enable them to perform in an efficient and courteous manner. An acceptable level of competence has been attained when the student is able to perform patient handling tasks to include the following:

a. Drape or gown patient for examination.
b. Transfer patients safely to and from stretchers and wheelchairs.
c. Check patient's chart for contradictions in reference to procedure, e.g., pregnancy, medications, history, etc.
d. Ascertain if the patient is prepared for the procedure.
e. Use immobilizing devices to restrain patients during exposure.
f. Explain or answer questions about physician's instructions.
g. Explain the x-ray procedure to the patient.
h. Reassure apprehensive parents of pediatric patients.
i. Reassure and calm children.
j. Review printed patient instructions on procedures with patient or patient's family.
k. Review patient's clinical history.
l. Check for clarification of conflicting doctors' orders.
m. Receive patients on arrival, i.e., introduce self, obtain patient's name and brief history.
n. Give precise and adequate direction to patient concerning procedure.
o. Use proper procedure for identifying patients.

p. Observe care to maintain the I.V. flow and integrity of the unit.
q. Make notations of significant patient physical or emotional response to procedures.
r. Label specimens, if applicable (e.g., biopsies).
s. Provide radiation protection for personnel and patient.
t. Inspect for electrical and mechanical hazards and observe rules of safety.
u. Respect rights and expectations of the patients.
v. Comply with legal requirements pertaining to safe handling of patients.
w. Respond to patient's personality and emotional state in a professional and empathetic manner.

We encourage the use of the five (5) fundamentals of service referred to as the AIDET acronym.

A – Acknowledge
I – Introduce
D – Duration
E – Explanation
T – Thank you

4. Radiographic Image Processing

Upon completion the student will demonstrate knowledge, understanding and skills in performing tasks related to radiographic image processing and quality control. An acceptable level of competence has been attained when the student is able to:

a. Process an image according to appropriate digital image or protocols.
b. Create a copy of a digital image on a CD
c. Perform proper start up procedures to ensure that imaging and processing equipment functions properly.
d. Inspect radiographic image quality to evaluate processing techniques.
e. Inspect image receptors and radiographs to determine source of artifacts.
f. Inspect image quality for proper technical factor selection.

5. Fluoroscopy

At completion the student will be able to demonstrate knowledge, understanding and skills in five broad areas: (a) equipment and accessories, (b) radiographic and fluoroscopic procedures, (c) contrast media, (d) fluoroscopic techniques, and (e) radiation and other safety practices. An acceptable level of competence has been achieved when the student is able to:

a. Equipment and accessories
    - ♦ Manipulate all fluoroscopic equipment and accessories using proper techniques without difficulty.
    - ♦ Explain the purpose and function of all fluoroscopic variables and their controls.
    - ♦ Diagram a typical image intensification system to include the recording system.
    - ♦ Select and use accessory items appropriately to include:
        - Restraining and supporting devices

- Cones, grids and filters
- Examination trays and supplies

b. Fluoroscopic procedures
   - ♦ Perform task specific to fluoroscopy to include:
     - Assist in the operation and adjustment of:
       1. Closed circuit T.V.
       2. Digital/Spot imaging
       3. Image intensifier
       4. Digital recording equipment
       5. Multi format digital imaging
     - Assist the physician with the non-exposure aspects of fluoroscopic procedures, e.g.,
       1. Upper and lower gastrointestinal studies
       2. Spine and spinal cord studies
       3. Gynecological and urological studies requiring fluoroscopy
       4. Arthrography studies

c. Contrast media
   - ♦ Prepare barium mixtures using formulas appropriate to the examination.
   - ♦ Select the proper utensils and dispensers for administration of contrast for each examination.
   - ♦ Evaluate patient's chart for contraindications.

d. Technique
   - ♦ Select the proper technical factors for routine fluoroscopic studies and make appropriate adjustments for the unusual patient by manipulating the imaging arrangement. The factors to be altered or arranged in varying patterns of use include:
     - Kilvolts, milliampers, distance, and time
     - Grids
     - Filters
     - Focal spot size
     - Collimation

   - ♦ Make the proper adjustment for optimum visualization with digital, electronic or optical imaging systems.

e. Radiation protection and safety practices
   - ♦ Perform patient handling tasks safely to include:
     - Transporting and transferring patients
     - Checking for patient identification
     - Handling patients with infection diseases
     - Providing radiation protection for patients, personnel and guests by utilizing shields, collimator, filters, patient restrainers, and by employing correct technical factors to avoid the necessity for retakes

- Providing safety from electrical hazards by routinely inspecting equipment wiring
- Insuring safety in dimly lighted areas by keeping room furnishings and accessories properly placed and safely positioned
- Providing safe storage for patient's belongings, e.g., eyeglasses, dentures, jewelry, etc., which may be temporarily removed during the fluoroscopic procedure

6. Pediatric Radiography

   Upon completion the student will be able to demonstrate knowledge and understanding of the special considerations when radiographing children. An acceptable level of competence has been attained when the student is able to:

   a. Gain cooperation of the pediatric patient.
   b. Provide a safe environment for the patient at all times.
   c. Provide radiation protection for every pediatric patient, when it does not interfere with information being sought.
   d. Use immobilization devices to provide a safe environment for the patient and reduce radiation exposure to both patient and personnel.
   e. Make necessary adjustments in technical factors.

7. Geriatric Radiography

   Upon completion the student will be able to demonstrate knowledge and understanding of the special considerations when radiographing geriatric patients. An acceptable level of competence has been attained when the student is able to:

   a. Provide age appropriate communication with the geriatric patient.
   b. Provide diagnostic exams considering the cognitive abilities and psychological state and restrictions of the geriatric patient.
   c. Provide a safe environment for the patient at all times.
   d. Provide the necessary radiation protection for patient, technologist and personnel while performing exams.
   e. Make the necessary positioning and technical changes and make compensations for these changes as the patient requires.
   f. Utilize proper safety techniques.

8. Mobile and Surgical Radiography

   Upon completion the student will be able to demonstrate knowledge and understanding as well as dexterity in the examination and care of the confined patient and patients undergoing surgical procedures. An acceptable level of competence has been attained when the student is able to:

   a. Utilize rules of body mechanics for the safety of both patient and technologist.
   b. Provide the necessary radiation protection for patient, technologist and personnel while performing bedside or surgical radiographic examinations.
   c. Make adjustments in exposure factors specific to mobile and surgical procedures.

d. Make the necessary positioning changes and make compensations for these changes.
e. Utilize proper safety techniques and take proper precautions against electrical hazards.
f. Prevent spread of infection and disease by practicing medical asepsis in patient's room by following established standard precautions.
g. Prevent harm by properly handling all common equipment being used for the patient's care.
h. Follow standard sterile procedure when performing surgical procedures.
i. Perform selected routine bedside and surgical radiographic procedures.
j. Clean portable equipment upon entering and exciting patient rooms and surgery.

9. Evening, Weekend and Overnight Shifts

Upon completion of the rotation, the student will "fine tune" their knowledge, understanding and proficiency in non-routine and trauma procedures. An acceptable level has been attained when the student is able to:

a. Demonstrate proficiency in mobile and surgical radiography.
b. Demonstrate proficiency in office procedures, radiographic electronic records and files.
c. Efficiently and speedily handle trauma and emergency room patients.
d. Demonstrate ability to adapt routine procedures to various trauma and out of the ordinary conditions.
e. Prepare the department for the next day's patients (i.e., clean and stock examination rooms and portables).

D. Professional Behavior in Clinical Setting

1. Affective Clinical Objectives

The following affective objectives are the professional domains that every student must achieve. These are the accepted and normal traits that a technologist should have in the clinical and professional setting. The student will be evaluated on these by means of the clinical grading system.

a. Respect For Patient's Well Being

- Patient Modesty

  Students are expected to observe the patient's right to privacy and modesty, as if s/he were the patient. This need should be met under all circumstances including transportation to the radiology department, within the radiology department and during examinations. Patients should be covered, as much as possible, at all times. Examination room doors should be closed during all examinations; the student should provide a method of restricted access to the room if patient modesty is compromised by the nature of the examination. Instructions to the patient should also be given in private to prevent embarrassment to the patient.

  During transportation the patient should be provided with his/her bathrobe, if available and practical. If not, the patient should be provided with an alternate form of covering. Slippers should be made available

(either the patient's own, or the hospital provided ones). When a patient is transported by wheelchair, a blanket or sheet should be used to cover the patient's legs.

Outpatients should be provided with a patient gown that will provide the maximum coverage for that is absolutely necessary for performance of the radiographic examination. Shoes and/or socks should be left on for all examinations except those in which they will interfere with the performance or cleanliness of the examination.

- Keeping Patient Information Confidential
  The Health Insurance Portability and Accountability Act (HIPAA) is in effect and is being adhered to by the clinical sites. Students may be asked to sign HIPAA confidentiality statements during the clinical rotations. **Disclosure of confidential information may result in the student's dismissal from the Radiography program.**

  The student is expected to observe the rules of confidentiality (HIPAA) of patient information. That information which should be kept confidential includes, but is not limited to, examination results, information in the patient's medical record (chart), personal history, behavior in the radiology department, and any information obtained from the patient during the examination. The information should be passed on only to those professionals directly involved in the patient's care. Patient information is not to be discussed with co-workers that are not involved in patient care, other students, student' family and friends, or the patient's family.

  Students should not extend personal favors to family and friends based on their access to patients' radiology results and hospital records.

- Showing Concern for Patient's Comfort
  The student is expected to demonstrate concern, in the form of empathy, for the patient's physical and emotional comfort.

  Physical comfort should be achieved by providing support in the form of pillows, sponges, and/or chairs for the patient. Examinations should be performed in a manner that concentrates on patient comfort, not one of ease for the student. Uncomfortable positions should be setup so that the patient remains in position as short a time as possible. The patient should be made as comfortable as possible before the student leaves to check films or examination progress. Patients remaining in the department for long periods of time should be checked on frequently to assure patient comfort.

  The emotional comfort of the patient is equally important, although harder to address. The student should keep in mind that the patient's

primary concerns are more than just the outcome or progress of this examination. While it is not the student's responsibility to address all of a patient's emotional problems, s/he should address those often most prevalent in the radiology department. Those areas include, but are not limited to, fear of results, fear of resulting disability, loss of self-esteem and fear of the unknown.

Fear of the unknown is the easiest for students to dispel, simply by explaining the examination in lay terms and keeping the patients informed of the examination progress. Other fears may be partially dispelled by simply listening to them and providing reassurance without imparting confidential or false information to the patient. Students should encourage communication, when appropriate, by asking questions and conversing with the patient. The patient's need for self-esteem should be met by allowing the patient to do as much as possible for him/herself without violating hospital policies. The student will need to use judgment in determining what the patient should be allowed to do, but should keep in mind that patients are not invalids.

b. Proper Patient Communication

- Addressing Patient Using Proper Titles

  A general attitude of respect for the patient as a human being is desired. Part of that includes respect when addressing a person with whom the student is unfamiliar. Upon initial contact, a patient should be approached using either the patients first or last name. Each clinical site may have a preference. When addressing a patient by their last name you should utilize proper titles, i.e., Mr., Ms., Reverend, Sister, etc., and surname. Upon patient request, or after lengthy contact with the patient, the student may use a method of addressing the patient, which is less formal. Children may be addressed on a first name basis in order to promote trust and cooperation. At no time are the use of slang terms, i.e., honey, sweetie, dear, etc., to be used. The student will not reach the point of familiarity with a patient that would permit the use of such terms.

- Introducing Student to Patient

  In light of the information that is available to the student regarding the patient and his/her condition, it is a common courtesy that the patient should know the name of the individual performing the examination. The student should introduce him/herself to the patient at the time of initial contact. This will also help the patient to feel that his/her needs are better being taken care of. The patient may then ask the student technologist directly for assistance. Others present in the room during the examination should also be introduced to the patient.

- Explaining the Examination in Lay Terms

Considering the intimate nature of many of the examination performed, essentially all portions of the diagnostic examination should be explained to the patient. Judgment must be used by the student technologist regarding the scope and extent of the explanation based on the examination type, patient comprehension level, and patient age and interest. The complexity of the procedure and the anxiety level of the patient should also be considered. Explanations should always be given regarding the general nature of the examination, any palpations made by the student technologist, and any movements required of the patient. In the interest of time and simplicity, short, concise explanations are usually best. However, when indicated by the examination and/or patient, lengthy and in-depth explanations should be given. Care must be taken to use language, which is consistent with the patient's level of comprehension. Jargon, acronyms, and scientific terms should not be used.

- Patient's Right to Refuse Examination and/or Student Technologists
  All patients have the right to refuse a diagnostic examination. If a patient refuses an examination, please consult your clinical liaison. DO NOT continue with the examination against the will of the patient.
  The patient also has the right to request another technologist to perform their examination. Kindly inform the patient that you will ask another technologist to perform the examination.

- Keeping Patient Informed of Examination Progress
  The patient should know the reason for any apparent delay in the examination progress. This is inclusive of any time when something is not actively being done for or to the patient. Common waiting times in the waiting area, waiting for a special room, waiting for a radiologist, waiting for images to be reviewed, waiting for the next image in a timed sequence, waiting for reading, waiting for paperwork, etc. should be explained to the patient. These simple explanations can help to alleviate the patient's fears and anxieties, thereby favorable affecting that patient's opinion of the student, examination, department and institution.

c. Proper Professional Respect
   Professional respect should be extended to the following persons: 1) Radiologists, 2) Staff Technologists, 3) Program faculty, 4) Staff Physicians, 5) Hospital Staff, and 6) all members of the Radiology Department. In order to define "proper professional respect" with each group, a description of the relationship between the student and each group will be offered.

   - Radiologists
     The student should recognize the relationship that exists between the student technologist and the radiologist. The radiologist is highly trained

in the area of interpretation of images, while being minimally trained in their production. The student, on the other hand, is in the process of being highly trained in the area of production and only minimally in the area of interpretation. Therefore, one cannot exist without the other. It is imperative that each acknowledge the other's area of expertise.

- Respect for the radiologist will be displayed by:
  - Introducing the radiologist to the patient in any examination in which the two come in contact.
  - Referring to the radiologist using proper title and surname.
  - Not questioning the radiologist's instructions regarding a specific examination. Appropriate clarification of instructions is encouraged.
  - Not questioning the radiologist's interpretation of an image in a public way. The student's base of knowledge does not justify that disagreement.
  - Questions which enrich the student's understanding of radiography and the radiologist's requirements are appropriate and encouraged. Questions should be asked on an individual basis and when time allows (not during an examination).
    - Being loyal to and supportive of the radiologist's role and competence in public. Privileged information obtained in the hospital setting must be kept in the utmost confidentiality. Personal opinions of the radiologists must be kept as such – personal, not public.
- Staff Technologists
  - Staff technologists should be viewed by student technologists as providers of information, examples to be followed and authorities in the field. **The student should recognize that radiography is an art; not an exact science; several different methods may achieve the same end.** The classroom teaches one way, working technologists develop variations of this way. Students should take advantage of this knowledge and learn as many ways possible to achieve the desired results. Students should not expect staff technologists to be the ultimate source of information, as recall of specifics may gradually decrease after the formal educational process has ended.

- Respect for the staff technologist will be displayed by:
  - Accepting the technologist's decisions regarding positioning, procedure and technique. This should be done without question, in light of the education and experience of the staff technologist.
  - Questioning the staff technologist's decisions in private and in the atmosphere of increasing knowledge, not passing judgment on the competence of the staff technologist.
  - Recognizing that each staff technologist may have individualized any given procedure, while keeping in mind the method that was taught to the student by the program faculty.

- Being loyal to and supportive of the staff technologist's role and competence in public. Privileged information contained in the hospital setting must be kept in the utmost confidentiality. Personal opinions of the staff technologists must be kept as such – personal, not public.

♦ Program Faculty
- The student should view the program faculty as mentors and role models. The relationship between faculty and student must remain at a healthy professional distance in order to facilitate learning. Respect for the faculty is a fundamental assumption, without which, learning is compromised.

♦ Respect for faculty will be displayed by:
- Following all instructions given by faculty.
- Questioning of instructions and decisions is not discouraged, however, questions must be asked privately and at the soonest appropriate time following the examination in question. Students should ask questions with the intent of gaining further knowledge and insight, not with the intent of questioning competency. The authority of the program faculty should be recognized without ignoring the student's right to disagree. The student should understand that acceptance is required while personal agreement with faculty's philosophy is not.
- Bringing discrepancies in positioning, procedure, and technique to the faculty's attention so that explanation may be offered.
- Recognizing the faculty member's role as liaison with other parties involved in the educational process, i.e., department personnel, hospital personnel, and college staff and faculty.
- Being loyal to and supportive of the program faculty's role and competence in public. Privileged information obtained in the hospital setting must be kept in the utmost confidentiality. Personal opinions of the program faculty must be kept as such – personal, not public.

♦ Staff Physicians
- The relationship between student and physician is similar to that between student and radiologist, in that a certain level of respect is assumed. The student should recognize the physician's special area of expertise and should acknowledge their role in the care of the patient, and may be the only person who is aware of all facets of the patient's condition.

♦ Respect for the staff physician will be displayed by:
- Referring to the staff physician using proper title and surname.
- Not questioning the physician's judgment or competence in area where the student is not qualified to judge.

- Recognizing the staff physician's role in the requesting of radiographic examinations.
- Being loyal to and supportive of the staff physician's role and competence in public. Privileged information obtained in the hospital setting must be kept in the utmost confidentiality. Personal opinions of the staff physician must be kept as such – personal, not public.

♦ Hospital Staff
- The students' relationship with the hospital staff should be reflective of an awareness of their given areas of expertise. An atmosphere of cooperation, not competition, is essential in order to facilitate the best possible care for the patient. The student should remember that the hospital and its staff is providing a service to the student by allowing the clinical phase of training to take place there.

♦ Respect for the hospital staff will be displayed by:
- Addressing hospital personnel by a method, which is appropriate to the position of that staff member.
- Not questioning the competency of hospital personnel in areas where the student is not qualified to judge.
- Acknowledging the staff members' area of expertise and seeking the assistance of an appropriate member when the student's base of knowledge does not provide for proper care of the patient.
- Being loyal to and supportive of the hospital staff's role and competency in public. Privileged information obtained in the hospital setting must be kept in the utmost confidentiality. Personal opinions of the hospital staff must be kept as such – personal, not public.

♦ Imaging Department Staff

The student's relationship with other Imaging Department staff should be one of respect for the others area of expertise. Radiology aides and secretarial personnel should be acknowledged for their special skills and should be viewed as a source of information by the student. At no time during the student's training should s/he display a condescending attitude toward personnel. They are a vital part of the department, without which the department would not function.

♦ Respect for other Imaging department personnel will be displayed by:
- Allowing personnel to perform their job to the best of their ability.
- Asking for assistance in performing tasks – not demanding it.
- Asking questions of the staff in an appropriate place and time to broaden the student's base of knowledge.
- Not asking staff to perform tasks for which they are not qualified or are not allowed to perform.
- Being loyal to and supportive of the department personnel's role and competence. Privileged information obtained in the hospital setting

must be kept in the utmost confidentiality. Personal opinions of the department personnel must be kept as such – personal, not public.

d. Cooperation With The Clinical Site Staff

- Accepting Constructive Criticism:
  Students will inevitably be the recipient of criticism from faculty, staff technologists and radiologists. It is vital to the educational progress of the student that the criticism be viewed as an attempt toward improvement in the student's competence or professional growth. What is seen as criticism by the student may actually be only a difference of opinion, a difference in instruction, or a demonstration of the "art" of radiography expressed as an individualized method. The student should accept the criticism without argument. A defensive attitude is expected initially, but should be displayed as little as possible until the student has taken the time to examine the circumstances more fully. The student should attempt to understand the criticism and should further study images, procedure books, reference books, or ask faculty members to help with an explanation.

  At no time is it acceptable for a student to disagree with criticism in front of a patient. It is also unacceptable for criticism to be given in front of a patient, and faculty members should be made aware of any such instances.
  In the event that criticism is given in a non-constructive manner, the clinical liaison should be notified as soon as possible in order to rectify the situation. Time is important in this instance as details tend to be distorted proportionately with increases in time.

- Observing Rules and Regulations
  Students in clinical training must observe the rules and regulations of the hospital and radiology department in which training is taking place. Areas of concern include, but are not limited to, the following:

-Parking	-Transportation of patients
-Dress code	-Examination procedures
-Work assignments	-Use of facilities
-Use and care of equipment	-Image quality criteria

- Asking Appropriate Questions of Staff
  In order to enhance the clinical learning experience, the student should attempt to learn as much as possible about the happenings in the radiology department. Students will be taught in the classroom to perform each examination according to a given set of criteria. Individual technologists may perform that examination differently according to

patient conditions, equipment available, personal preference, or variations in training. The student should question the technologists regarding the variance at an appropriate time and place. The student should observe and question staff technologist's actions regarding an exceptionally difficult or unusual patient in order to have a reference in the instance that the student encounters a similar patient or circumstance.

Students are encouraged to ask questions about pathology, symptoms, treatment and etiology of diseases and conditions seen in patients. The deeper the understanding of disease process and treatment, the better the understanding of the student technologist's role and relationship to the patient. Questions should be asked at an appropriate time and place and in the proper context. This asking of questions is viewed as an indicator of interest and motivation in the student.

- Offering Assistance to Staff

  An atmosphere of cooperation among staff and student technologists is essential to the operation of the radiology department. A student in clinical training must keep him/herself occupied as much as possible in order to intensify learning. At no time during the scheduled clinical hours should a technologist perform an examination unassisted while students are present in the lounge area, or otherwise occupied by non-clinical activities, i.e., studying. The only exception to this is when the students are involved in a structured clinical activity directed by a faculty member, i.e., practice sessions, laboratories, film critique class. It is especially recommended for students to assist with examinations which are beyond their didactic educational level. This will enhance classroom learning in the subject area. In these circumstances, it is important for the student not to participate with a closed mind. The student should be inquisitive about positioning, centering, central ray angulation, technique, and anatomy, as well as becoming familiar with departmental policy regarding the examination. These actions will increase the student's rate of learning, as well as, create a positive attitude in the technologist regarding that particular student.

- Seeking Responsible Assignments

  Acceptable behavior in this area will be demonstrated by the following:
  - Attempting to perform routine examinations (ones which the student has been deemed competent in and has had practice with) on a difficult patient.
  - Attempting examinations for which the student has received classroom instruction. The student should attempt to perform the examination as completely as possible with the technologist assisting when necessary, rather than always watching what the staff technologist does.

e. Dependability

- ♦ Following Instructions

  The student will follow instruction given by staff technologists and faculty as completely and accurately as possible. If the instructions as given are unclear to the student, it is his/her responsibility to obtain clarification BEFORE attempting to carry them out. Asking in advance is always better than making an error or guessing as to the intended meaning. The student should not be reprimanded or "made fun of" for asking clarifying questions. Any instances of this happening should be reported to the clinical liaison immediately.

- ♦ Meeting Clinical Assignments as Scheduled

  Students are expected to meet all clinical assignments unless an emergency arises or illness would cause the student to perform at a substandard level. Although the radiology department does not depend on students for its day to day functioning, the students are an important part of the department.

  Circumstances arise where the assistance of a student would provide smoother and more pleasant operation. Additionally, there are times when a specific examination may be delayed (when appropriate) in order for the students to benefit during its performance. Failure of the student to meet the scheduled clinical hours creates feelings of mistrust and unreliability in the technologist's view of the students.

  Dependability is one of the most admired and expected of attributes of any health professional or student**.** Failure to meet expectations in this area carries over into other areas of the technologist's view of the student.

- ♦ Completing Patient Exams

  Students should complete patient examinations from the beginning of the examination to the end, unless department procedures indicate otherwise. The student is responsible for the following:

  - Reviewing and evaluating patient requisitions
  - Room preparation
  - Greeting the patient
  - Dressing the patient as appropriate for the exam
  - Completing the exam
  - Processing images, CR or DR
  - Reviewing images for quality and anatomy
  - Discharging patient
  - Closing out the exam
  - Completing paperwork
  - Forwarding images via PACS to the appropriate departments/personnel
  - Cleaning room

Assistance with any part of these is acceptable as long as it is on a voluntary basis and does not result in the failure of the student to perform all duties.

Additionally, a student should complete any examination with which s/he is involved at the end of scheduled clinical hours unless the involvement is so minor that the student's leaving will not require replacement or in any way affect the performance of the examination

f. Adherence to Program Dress Code By:
   - ♦ Wearing Appropriate Uniform
     Uniforms promote a professional "look" and identify the student as a learner of Clarkson College. **Students will be sent home from clinical for attire which is outside the stated Student Uniform Policy**.

   - ♦ Observing Personal Hygiene
     Students are expected to observe normal and customary rules of hygiene. Hair should be neat, clean and secured so as not to interfere with the examination. The body should be bathed daily to prevent the spreading of germs. Hands and fingernails should be kept scrupulously clean throughout the clinical time, since hands are the most frequent cause and spreader of disease.

g. Seeking Assistance When Necessary
   - ♦ For Proper Patient Care in Examinations
     The student should use sound judgment when seeking help with difficult aspects of an examination. If the student is unaware of the required skills in order to care for a given piece of equipment, assistance should be sought from a staff nurse, technologist or faculty member. When transporting a patient, the student should be certain which apparatus may be discontinued while in the department and which ones must accompany the patient before disconnecting anything. Once in the department, the student is responsible for the operation of the apparatus and should seek assistance from a staff technologist or faculty member should any problems arise. When it comes to patient care, caution is preferred over negligence; therefore, the student should not hesitate to ask for help. As the student progresses in his/her education a decrease in assistance should be the sought after goal. Some areas of patient care where assistance may be needed are:

     -Isolation policies
     -IV operations
     -Chest tubes and suction
     Nasogastric tubes and suction
     -Oxygen administration
     -Catheter care

Patient care should also include other items beyond care of equipment. Several aspects of patient care have been discussed in Sections D:1:a and D:1:b. The student should also be concerned about the personal cleanliness of the patient, if the patient is unable to perform those acts alone. A patient should never be returned to the patient floor in an unclean state. Patients that are incontinent or without bowel control should be cleaned before leaving the department or in the patient's room before the student leaves. Outpatients, as well as inpatients, should be provided with necessary items to clean themselves of barium and should be assisted as necessary.

- In Technical Aspects of Exam
  Students should seek assistance with an examination whenever there is doubt about its performance. This includes the areas of technique, positioning, central ray angulation, nature of examination, department routine and difficult patients. The student is encouraged to try to use his/her knowledge and common sense to reason out the problem, but should not hesitate to ask for help if necessary. As in all circumstances, the assistance should be sought at the proper time and in the proper manner and never in front of a patient. As the students' education progresses, less assistance should be necessary. Students are encouraged to commit techniques to memory as soon as possible and to rely on references as little as possible.

h. Judgment

- The Ability to Adapt to New Situations
  As the student progresses, it should become easier to adapt each examination to the patient and circumstances surrounding the examination. The student should be able to adapt the routine method of performing the examination in the areas of positioning, central ray angulation, placement of the IR, focal film distance, IR-grid combinations, technique and patient mobility. The student should always attempt to perform the examination in the way that is easiest and least harmful for the patient. In order to accomplish this, it is necessary to adapt the routine much of the time. The student should observe and assist whenever possible with this type of examination in order to gain experience and helpful insight.

- Instilling Confidence in Patients
  The student should demonstrate to the patient that s/he is capable of doing the examination and is confident in him/herself. This may be demonstrated by an even, calm tone of voice, steady hands, organization, efficiency, conversation, thorough explanations, acknowledgement of questions, providing answers when possible and by seeking assistance, if necessary, without the patient's knowledge. The patient should respond to the student in a manner that suggests trust and confidence. The patient may demonstrate this by conversing easily, relating symptoms

and problems associated with disease, laying in a relaxed position, speaking with a calm, even tone of voice, and responding to the student's instructions properly.

- Student Confidence
  The student should keep in mind that while s/he is enrolled in this program, the educational process is still taking place. While the student's body of knowledge is appreciated, it is also recognized that there is always more to learn. Students should not pretend that they know to do an examination of which they are unsure; it is never acceptable to perform an examination without being reasonably sure of the outcome of one's actions related to patient care and examination quality. The student should use his/her knowledge and reasoning and should share this with other students and technologists in an atmosphere of cooperation and assistance, not superiority. The outward signs of overconfidence will be in the student's tone of voice, facial expression and reactions to the other person's acceptance of the information.

- Basing Decisions on Clear Thought
  In instances where quick concise decisions are necessary, the student should develop the ability to decide quickly based on the knowledge and the circumstances surrounding the examination. Such instances may range from the pediatric patient to the disoriented older patient to the uncooperative emergency patient. The student should, as much as possible, remain calm and self-confident and perform the examination as routinely and efficiently as possible. The student should not cease to function in the capacity of student's ability to achieve this. Therefore, the student should observe and assist whenever possible with this type of examination.

- Always Striving for Quality
  The student should combine knowledge and reasoning in the performance of the examination in order to ensure quality care and images. In the instance that an image is less than optimal, the student should evaluate the image's quality and patient condition in order to determine if a repeat image is indicated. The student should not make this decision entirely on his/her own. Student images should always be reviewed by a staff technologist, faculty member or radiologists. If a repeat is needed, the student should perform this willingly with a registered technologist, and should not give the person requesting the repeat a difficult time. Opposition to the decision should not be expressed verbally or nonverbally; requesting an explanation of the reason for the repeat, is acceptable. The student should be certain of how to correct the error and **MUST** request to be accompanied by a

technologist for the repeat film. The student should strive for the perfect image, accept the good image and be willing to repeat the poor one, if necessary.

2018-2019

Radiography Program
Program Policies

III. General Information Regarding Program Policies

A. EVALUATION METHODS:

1. Clinical Courses
   The student's final grade will constitute one-third cognitive, one-third psychomotor, and one-third affective evaluation. To achieve clinical competency, a passing grade is required in all three categories. Refer to grading criteria detailed under each category. In the event a student does not have a passing grade in all three categories, the student will not be permitted to progress to a higher level of coursework in the Radiography program.

2. Theory/Lab Courses
   Students must complete the following components of the course with an average of 75% or greater in EACH of the following to continue matriculating through the Radiography Program:
   - Exams and Quizzes (Testing)
   - Cumulative Course Grade
   - Lab (as applicable)

   If a student does not pass the above requirements, only the grade that reflects the failing grade will be posted and turned in to the Registrar. Students receiving a "D", "F", "WF", or "NP" will be dismissed from the Radiography Program.

   Refer to the Associate Degree Programs Progression Policy.

   ♦ The following letter grades will be assigned:
   A = 92-100
   B = 83-91
   C = 75-82
   D = 65-74
   F = 64 and Below

ROUNDING RULES FOR FINAL GRADES
Final grades will be rounded to the nearest whole number using the tenth position (not the hundredth position). Grades containing .5 or higher will be rounded up to the nearest whole number. Grades containing .4 or below will be rounded down to the nearest whole number. For example: 91.4 will remain a 91%.....88.7 will round to 89%.

B. Program Attendance & Non-Attendance

Students are expected to attend all classes/labs/clinical in which they are enrolled. Makeup is very difficult. It is the student's responsibility to contact faculty to discuss topics/content/hours missed. The appropriate personnel **MUST** be notified of the reason(s) **before** an absence/tardy occurs; otherwise, the absence/tardy is considered unexcused. **Each unexcused absence/tardy will lower the final course grade by one letter grade.**

Being tardy, leaving early, or absent should be rare occurrences with good cause.

Students are encouraged to take vacations, planned time off during the scheduled semester breaks.

Classification of Absences:

Unexcused Absence:

The appropriate personnel **MUST** be notified of the reason(s) **before** an absence/tardy occurs; otherwise, the absence/tardy is considered unexcused. **Each unexcused absence/tardy will lower the final course grade by one letter grade.**

Excused Absence (without documentation):

The appropriate personnel **are** notified of the reason(s) **prior** to the absence/tardy occurring, but the student has no documentation that would supersede the attendance non-attendance policy.

Excused Absence with Documentation:

The appropriate personnel **are** notified of the reason(s) **prior** to the absence/tardy occurring. A student has an event that qualifies as an extenuating circumstance, such as illness, bereavement, pregnancy, or medical leave, **with proper documentation**.

Two consecutive absences of any classification in a course will result in the Radiography program director, College Registrar, and Financial Aid offices being notified.

Each class/lab/clinical day missed will count as an occurrence for that class/lab/clinical course. Exceptions may also be made for extenuating circumstances such as illness, bereavement, pregnancy, or medical leave, with proper documentation.

Clarification:

- A tardy will be defined as arriving after the scheduled start time of the class, lab, or clinical rotation.
- Students will not be allowed to attend the class/lab if they have missed 10 minutes of a lab or 30 minutes of a lecture/theory course.
- Per lab instructor, labs may or may not be allowed to be made up. If a lab is missed, it is up to the individual student to check with the instructor for makeup options.
- Any points (exams, quizzes, assignments, participation, etc.…) associated with an ***unexcused*** absence, will not be eligible for makeup, and will be assigned a ***zero***.
- **At no time** will a student be able to bring an infant/child to class/lab/clinical.
  Note: Drop in daycare services should be considered in advance and may be provided via the following website:
  https://omahachildcare.org/cat/drop-in-care/

Excessive Absenteeism:
Excessive absenteeism will not be tolerated. The radiography program's definition of excessive absenteeism is being absent for more than 3 sessions for an individual class/lab/clinical without proper documentation. Excessive absences in a course/lab/clinical do not fit the Clarkson College mission and values for success. Consequences of excessive absences for an on-campus course/lab/clinical will result in a drop of letter grade and possible dismissal from the program/college.

Class/Lab/Clinical

- 3 excused absences without proper documentation are allowed per class, per lab, per clinical. Each additional excused absence without proper documentation will result in a drop in letter grade.

Clinical

Over the course of the clinical experience students will be allotted 4 total personal days that can be used as personal time that does not have to be made up. These hours are broken down per semester and cannot be saved up to be used at the end of the program or cumulatively. Fall (1), Spring (2), Summer (1).

Once your personal time has been used, the Program Attendance & Non-Attendance Policy will apply.

Note: If, due to extreme emergency, (such as car crash, hospitalization, sudden death of immediate family member, etc…) the faculty determines, that it would have been impossible for the student to notify to the faculty prior to class, the absence may be excused.

A warning will be given only to the first offense for an unexcused absence/tardy that occurs in the Radiography Program. The program director will be notified by the course faculty and an anecdotal form will be completed. Documentation of the incidence via Anecdotal Record will be kept in the program director's office. Any future infractions will fall under the Attendance & Non-Attendance Policy.

2. Sick Leave
   In case of an illness, students will be required to makeup clinical work they miss due to the illness. If a student is absent for three (3) or more consecutive days due to illness, a written and signed statement from a physician indicating the student's capability to return is required.

3. Bereavement
   Students will be allowed three (3) excused absences to attend funerals involving immediate family members, i.e., parents, siblings, spouse/partner, children and grandparents. Missed clinical time up to three (3) days will not have to be made up. Funeral leave for non-immediate family members will also be considered an excused absence, however, the missed clinical hours must be made up. All coursework or labs missed will be required to be made up.

4. Drug and Alcohol Policy

   Clarkson College Students will be required to submit to Drug/Alcohol testing through Certified Background. Any student may be required to complete a Drug/Alcohol Test as either a scheduled, random selection process, or for cause. Missed class, lab or clinical is the student's responsibility to make-up. Please refer to the Clarkson College Drug and Alcohol Policy, as found within the most current Academic Catalog and Handbook, for details.

6. Inclement Weather

   In case of bad weather and/or roads, regardless if the College has closed, the student will decide if they feel that they can safely travel or not. If the student chooses not to travel, it is **MANDATORY** that they call and inform the course faculty or clinical liaison and clinical coordinator, prior to their scheduled start time. Time missed due to inclement weather must be made-up.

   If the weather is severe and threatens the safety of students coming to the College, the College may be closed. In the event of such conditions, Radio Stations KFAB (1110 AM), and television stations, KMTV – Channel 3, KETV – Channel 7, and WOWT – Channel 6, will be notified in time for broadcast at 6:30 a.m. A call to the College's Weather Line (552-6110) after 6:00 a.m. can also be made to determine the status of the College on the morning when the weather is bad.

   If the college does close due to inclement weather conditions, clinical students are not automatically excused from clinical rotations. Clinical students are required to complete a minimum number of clinical hours/semester and any time missed due to inclement weather must be made-up.

C. **Student Communication**

Students are required to communicate with peers, supervisors and faculty in a professional and respectful manner. Communication involves verbal as well as non-verbal strategies. Non-verbal communication during class periods should convey interest, respect and a mature professional demeanor. Email will be used for a communication tool throughout the Radiography program. It is required that students acquire, activate and regularly access (daily during the weekday) his/her Clarkson College email account. It is not acceptable for his/her account to be forwarded. Students are responsible for notifying the Program Director when there is a change in primary telephone number or address for the student.

Email and Online Course Access

All students are required to utilize the Clarkson College e-mail system for electronic communication with faculty. Students will respond to faculty email as necessary within 48 hours or two business days. All students are required to access the online campus system via OneLogin to complete course requirements while enrolled.

Netiquette Guidelines

Internet, LMS, and E-mail access is a privilege, not a right, and activities that may be acceptable on your private account at home may not be acceptable when using your Clarkson College-authorized service. The purpose of Netiquette guidelines is to help

clarify standards and acceptable etiquette for all electronic communication between the faculty and the student and/or student to student throughout the duration of the course. Please review this website for Netiquette guidelines.
http://www.albion.com/netiquette/corerules.html

D. Technology in the Learning Environment

Students will be expected to turn off all cell phones and electronic devices, not used for educational purposes, during class, lab, and clinical time. Photography, videography and audio recording of class or lab, or events within a class or lab may be completed only following explicit permission form the course faculty.

E. Clinical Hours

Students must complete a minimum of 1080 clinical hours (not to include the 30-minute lunch allowance). (However, some program-approved activities may count toward the above clinical hours.) The time for each student to be present in the clinic is scheduled and specified each academic semester by the clinical coordinator of the Radiography Program. Students **may not** trade times/days on the clinical schedule except for extenuating circumstances. Any change to the clinical schedule must be in writing via email and approved by the clinical liaison and clinical coordinator 72 hours or 3 business days in advance. Failure to do so could result in the requested clinical change not being granted. Trading of clinical sites or schedules for clinical education is **NOT** allowed.

If at the end of a student's daily clinical instruction, s/he is doing an examination, that student is obligated to see that particular examination through. After an examination is completed, the student is under no obligation to begin another procedure. Students must track clinical hours on the online clinical recording keeping website. Students are allowed and required to take one-half hour for meals on all shifts over 6 hours long. These hours do not count toward the 1080 clinical hour requirement.

Students may not start their shift early or skip meals with the intent of leaving early (or to makeup missed clinical hours) without prior approval of the clinical liaison and clinical coordinator or other Clarkson College Radiography faculty as deemed necessary.

Make-up of missed clinical will be done by scheduling clinical time that is similar to the shift/hours that were missed. Example: If you miss a day shift during the week, you will be required to make up a day shift during the week. If you miss a night shift, you will be making up a night shift. A missed weekend shift will result in scheduling hours on another weekend shift when other students are not already scheduled. Again, make-up hours will be a shift for a shift. These make-up hours must be pre-approved with both the clinical liaison and clinical coordinator before they can be completed.

Students will be allowed personal days for the fall (1) spring (2) and summer (1) semester to be used as needed. These allotted personal days cannot be accrued from one semester to the next.

Regarding make-up hours, if students need to make-up hours missed during a semester, hours can be completed during the semester breaks. A schedule must be completed and

pre-approved by the student, clinical liaison at the facility and the clinical coordinator and/or program director at the College. All clinical hours must be completed in order to progress to the next clinical semester and/or graduate. Please note that clinical hours cannot be made up during holidays that are observed by the College. Refer to the Radiography progression policy.

F. Employment/Temporary Radiographer License

Outside Work

Faculty recognize that it is often desirable and sometimes required that students maintain part-time jobs while obtaining their education. While faculty strive to accommodate these situations, students are not permitted to allow outside employment obligations to interfere with their course work, lab obligations or academic clinical responsibilities in any RT course. Outside employment activities that interfere with the academic requirements set forth by the Radiography program will not be considered an acceptable excuse for absenteeism, tardiness, or academic failure.

Radiography faculty recommend that students limit their hours of outside employment to no more than twenty (20) hours. This recommendation is to help students prioritize their time toward achieving academic success at Clarkson College.

Temporary Radiographer

If the student has the opportunity to become employed as a Temporary Radiographer, the employment **MAY NOT** be used in place of the supervised clinical education. Employment hours **MAY NOT** be used for makeup clinical hours, and competencies **MAY NOT** be performed during employment hours. Students may not accept a position as a Temporary Radiographer until s/he has completed 12 months of Radiography training. Any outside employment as a Temporary Radiographer is the responsibility of the student, i.e., state licensure, liability insurance.

The program recommends that students will not accrue more than twelve (12) hours for both clinical and primary work combined in a 24 hour period and there should be 8 hours between the end of a shift and the start of the next clinical experience.

G. Student Pregnancy Policy

It is important that students be aware that they are receiving their clinical education and training in the vicinity of ionizing radiation.

A student is encouraged to report her pregnancy to the program director and or Radiation Safety Officer/clinical coordinator immediately. **However, a written disclosure is voluntary – NOT REQUIRED.**

The student may receive counseling from the clinical coordinator/Radiation Safety Officer of the program and may be required to show proof of counseling from their physician.

The pregnant student who is in good health may continue her coursework/lab and/or clinical experience. The student and her physician should consult to ensure that the clinical experience does not interfere with the student's health or pregnancy. If the

student chooses to continue in the program and complete the clinical requirements the following options are available:

1. Continue in the program with no alterations of clinical schedule.
2. Continue in the program with alternations of clinical schedule that may or may not include reduction of fluoroscopy, surgical or portable rotations.
3. Withdraw or take a leave of absence from the Program.
4. Submit a written withdrawal from declaration of pregnancy.

Students who remain active in the Radiography Program will receive and must wear a second radiation monitor at waist level to monitor fetal dose. (The waist monitor must be worn on the inside of protective aprons to correctly monitor fetal dose.) Refer to the Clarkson College Radiation Protection Plan in Section V.

Students who decide to withdraw or take a leave of absence from the program are required to report to the Financial Aid Office to discuss how these actions might affect their financial aid status. Return or re-entry into the course/lab/clinical experience courses of the program is dependent upon availability of program/clinical space, and/or the attainment of capacity waiver from the JRCERT for the time period required for the student to complete the required course work.

All students are required to read the NRC Pregnancy Health Risks in Section V and the Clarkson College Protection Plan under section IV. – M. of this Handbook.

H. Clinical Student Uniform and Grooming Policy

Students are reminded that how you dress reflects on you, the College and the Profession. In order to exhibit an image of professionalism to patients and visitors and to help the students comply with the various hospital policies, the following dress code will consist of:

- **Uniform:**
  - Cherokee Uniform Company Galaxy Blue scrubs.
  - Approved Laboratory jacket (optional) – if worn must specify Clarkson College student on the front. Please note that surgical scrub jackets cannot be worn unless the student is in the surgery rotation.
  - Clarkson College Logo and designation in Radiography embroidered on uniform placed on the left collar of scrub top and laboratory jackets.
  - ID/Name tag – Furnished by College during admission to the College. (This must be worn at collar level.)
  - Personal Dosimeter – Furnished by College.
  - White socks or hose.
  - White, gray or black tennis shoes only, no neon. As needed, pre-approval from the clinical coordinator or director of the Radiography program.

- **Criteria for Uniform:**
  - Uniform must be clean and pressed.

- Shoes must be neat and clean. No open-toe shoes, boots, or sandals are allowed.
- The Clarkson College logo must be embroidered on the front of the uniform, scrub top and/or laboratory jacket.
- The film badge must be worn at collar level, outside protective apron, at all times.
- Surgical scrubs may only be worn during surgery rotations.
- If the uniform top does not offer a student enough warmth with the lab coat (See above) a white short-sleeve or long-sleeve t-shirt may be worn under the uniform top. (**No visible print and/or decal on the t-shirt should be seen through the uniform top**.)
- *Any student reporting to the clinical site in improper uniform or attire, soiled or untidy uniform, and/or dirty shoes, will be sent home by the clinical liaison or program faculty. Clinical time missed due to this incident will be made up and reported in an anecdotal report. (See Sample Clinical Forms.)*

♦ **Grooming:**
- Hair must be neat and clean, if shoulder length or longer must be worn such that it does not fall forward into face or patient when performing duties.
- Moustaches, beard and/or sideburns should be well groomed.
- Students should shower or bathe daily and use an adequate deodorant.
- No scented perfumes, body or after shave lotions may be worn at clinical as it may be objectionable to the ill patient.
- Students' breath and clothing/uniforms or lab coats must not smell of smoke.
- Fingernails should be short, neat and clean. Fingernail polish, if used, should be clear. **Acrylic/Shellac nails are not permitted.**
- Make-up should be used tastefully. Bright colors may be offensive to the ill patient and should not be worn at clinical.

♦ **Jewelry & Decorative Body Adornment:**
- Jewelry should be kept simple and to a minimum
- Rings (only wedding bands are acceptable), some specialty areas may not permit any rings to be worn*.
- Earrings (Only 1 small post-type stud may be worn in each ear.)
- Piercing (No body piercing, that may be seen by patients or faculty, are permitted. In the exception of post-type stud earrings as defined above.)
- Pins may not be worn on the external surface of the uniform.
- Necklaces, bracelets, and anklets may not be worn at any time.
- Additional jewelry not listed may or may not be worn at the discretion of the faculty or clinical facility.
- Tattoos must be covered at all times during clinical rotations.

*Clarkson College and faculty, and/or Clinical Affiliates and staff are not responsible for misplaced, lost or theft of jewelry.

- **Additional Guidelines:**
  - No chewing gum while attending patients.
  - Smoking, if permitted by the clinical site, is only to occur during scheduled breaks and in designated areas. See Clinical Liaison for designated smoking areas.
  - Students in the clinical education centers are not to receive visitors or phone calls during their assigned shift unless it is an emergency message. Personal phone calls should be made with public phones and only during scheduled work breaks.
  - Cell phones are not to be utilized during clinical time.
  - Eating food and/or drinking should be done in specifically designated areas at regularly scheduled breaks.
  - Students are not allowed to use the internet for personal use outside of the clinical requirements at the clinical site.

I. Professional Dress

The following are considered appropriate attire for on-campus and/or professional events, clinical site/orientation visits, and anytime that the student is representing the College.

- Clinical attire as outlined in the Clarkson College Radiography/Medical Imaging Student Handbook, Clinical Uniform Policy.
- Khaki's/dress pants and a Clarkson College polo
- Business casual, i.e. dress pants, skirts, dress shirt/sweater.
- The following are not acceptable: t-shirts, jeans, shorts, short skirts/dresses, tennis shoes, and flip flops

Based on the event, your instructor may give you further guidance.

Faculty will determine the thresholds of acceptable and non-acceptable.

J. Clinical Policies

Clinical policies provide the student and faculty with a consistent method for evaluating success and areas of improvement while the student is completing their clinical requirements.

Clinical Record Keeping

Students must keep a daily record of all radiographic examinations completed. Students are to keep a record of all clinical experiences using the online clinical record keeping website provided for that purpose. These records will be reviewed by the clinical coordinator throughout the semester. Deliberate falsification of clinical records may result in the dismissal of the student from the program.

Confidentiality of Student Records

Student records are kept in a locked file in the program director's office and are available to the student at any time. Permanent records are on file in the Registrar's Office.

Students are responsible for keeping their clinical records confidential at the clinical site and their access to the online clinical record keeping website must be kept confidential and may not be shared.

Clinical liaisons will be required to lock any student information that they have in a locked file cabinet or locked office (i.e. clinical affective evaluations, exams, pertinent student information, etc…). Additionally, clinical liaison access to the online clinical recording keeping website is confidential and may not be shared with anyone else.

Clinical Competency Grading

The student will follow these steps when requesting a clinical competency:

1. Prior to the start of an examination, inform the registered technologist present that they wish to be graded on the examination.
2. The student will perform the examination with the evaluator present. Once the examination is started, the student may not cancel the evaluation.
3. The evaluator will grade the student's performance based on the established guidelines. **NOTE:** The student's grade is determined by the Clinical Competency Evaluation Form located on the online clinical recording keeping website.
4. The completed form must be submitted by the evaluator. All successfully passed competencies will then be posted to the online clinical recording keeping website. The clinical coordinator will review competencies on the website.
5. Note: A clinical competency can be revoked at the discretion of the college faculty.

A sample competency form and explanations are in the Sample Forms Section of this handbook. Prior to the start of each semester the student should review their list of competencies that they have completed and those left to complete.

Repeat Policy

To ensure that patient radiation exposure is kept as low as reasonably achievable (ALARA) and to comply with JRCERT Regulations, students may not repeat radiographs without direct supervision.

If the student must repeat a radiograph, **AN INSTRUCTOR OR REGISTERED TECHNOLOGIST MUST BE PRESENT IN THE ROOM. THE INSTRUCTOR/TECHNOLOGIST MUST CHECK THE STUDENT'S POSITIONING AND TECHNIQUE BEFORE THE REPEAT EXPOSURE IS MADE.**

All repeats will be entered on the daily examination log and must include documentation of the technologist initials that provided direct supervision during the repeat exam. The clinical coordinator will review monthly.

Any student that does not follow the repeat policy will be subject to the Disciplinary Action Policy and Procedure process.

Accidents/Illness to Patients/Self/Staff Requiring Emergency Care

1. Immediately report any accident, incident, or unusual occurrence involving a patient to the staff technologist to whom you are assigned, no matter how minor it may seem to you.
2. A radiologist is to check the individual prior to them leaving the area/department.
3. Appropriate incident forms must be filled out relative to each case. (Incident Reporting). An initial examination will be performed by the radiologist to determine any injury. After the initial examination, and explanation of options, individuals may refuse treatment.
4. Students should consult with the clinical liaison and clinical coordinator concerning the incident.
5. In the event a student or faculty member suffers an illness requiring emergency care while on the premises of the clinical site, the site will provide emergency medical care or will arrange transportation to receive emergency care. The cost will be charged to the student or faculty member. (Per affiliation agreement)

K. Chain of Command

Students are encouraged to resolve issues (personality or operational) at the lowest level possible; however, should a mutual agreement not occur or if the student feels that the issue(s) have not been fully resolved, they should consult with the following chain of command by filling out a petition for reconsideration form that can be found on the Clarkson College website at the following link: Petition for Reconsideration.

1. Staff Technologist
2. Clinical Liaison
3. Clinical Coordinator
4. Program Director
5. Vice President

L. Petition for Reconsideration

A petition for reconsideration asks that an exception to a decision or policy be made because of extenuating circumstances. Petitions might be used to resolve disputes between an individual and an institution over issues such as grades (except grades related to academic integrity issues), billing, financial aid, terms of employment course transfer, degree requirements, other similar disputes, or to review events or circumstances that have occurred in an individual's particular relationship with an institution.

Procedure

1. All Petitions for Reconsideration must be submitted, on the **Petition for Reconsideration Form**, to the Registrar's office within one term following the incident in order to facilitate tracking.
2. The Registrar's office will schedule a meeting with the individual(s) petitioned within five(5) business days of receipt of the **Petition for Reconsideration Form**.
3. The decision regarding the petition for reconsideration will be made at that meeting.

4. The individual petitioned will notify, in writing, the petitioner of the decision of the petition for reconsideration within five business days.
5. The Registrar's office will post a letter to all involved parties of the decision and the Registrar will send notification to all involved parties within five (5) business days.

If, after receiving the results the petitioner still believes the decision is inequitable, a new petition for reconsideration may be filed to the next level of authority (within five business days). The above procedure will be used at the next level of authority. If the student is not satisfied with the decision of the Petition for Reconsideration at that level, the student may then contact the appropriate Vice President within five (5) business days of the Petition for Reconsideration decision. The appropriate Vice President will respond within 10 business days. Decisions made by the Vice President shall be final.

M. Student Grievance Process

A grievance is a complaint that a specific decision or action that affects the student's academic record or status has violated published policies and procedures, or has been applied to the grievant in a manner different from that used for other students.

Step 1: The student must complete a Grievance Form obtained from the Student Services office or the following link on the Clarkson College website: Student Grievance Policy . The student must provide strong, documented evidence and submit the completed Grievance Form to the Registrar's Office. The student must submit the Grievance Form no later than 14 days from the time of incident.
Step 2: The Registrar's Office will forward the Grievance Form to the Vice President of Academic Affairs (VPAA) who will initiate and facilitate the college committee's response to the student's grievance. The VPAA will provide a written response of the outcome within 10 business days.
Step 3: The Vice President of Academic Affairs (VPAA) office will form and facilitate the Grievance Committee. Complaints may provide statements from witnesses as part of their information and evidence. Complaints of discrimination of the basis of sex may be filed with the U.S. Department of Education Office of Civil Rights, 8930 Ward Parkway, suite 2037, Kansas City, Missouri 64114-3302, and (816) 268-0050.

N. Academic Integrity

Clarkson College views academic integrity as a reflection of a student's personal integrity. Therefore, all students are required and expected to maintain the highest standards of academic integrity in the preparation of all work and examinations. Students found in violation of the academic integrity policy (SW-25) are subject to disciplinary action. Students can obtain more information about the Academic Integrity Policy in the online Clarkson College Academic Catalog and/or course syllabi.

O. Professional and Personal Conduct of the Radiography and/or Medical Imaging (MI) Student:

Students are obligated to function within the framework of the ARRT Code of Ethics, the Clarkson College Student Code of Conduct and the policies and procedures of the College and Radiography (R) and/or Medical Imaging (MI) Program.

Below are the links to the ARRT Code of Ethics and the College's Student Code of Conduct:

ARRT Code of Ethics
Clarkson College Code of Conduct Policy

In keeping with the philosophy of Clarkson College, a student is expected to exhibit professional behavior when performing activities or representing the Radiography/Medical Imaging program in any capacity. The student is expected to follow the "Code of Conduct" identified in the Clarkson College academic catalog.

Students who choose not to exhibit professional behavior and/or comply with the policies and procedures of Clarkson College and/or the Radiography/Medical Imaging program will be faced with disciplinary action.

Professional expectations for all programs

Clarkson College requires students to demonstrate characteristics relating to professionalism, including but not limited to, interpersonal skills, communication skills, appearance, use of constructive feedback, and responsibility. These characteristics are not explicitly part of a profession's core knowledge and technical skills but are nevertheless required for success in the health care field.
http://www.clarksoncollege.edu/Admissions/undergraduate/professional-expectations/

P. Disciplinary Action Policy and Procedures

Professional and personal conduct of students in the Radiography and Medical Imaging Program and clinical setting is governed by the clinical and program policies of their Handbook. Students will be given access to the Radiography Student Handbook in Radiography 101 Introduction to Radiologic Technology and in each Radiography course and semester to follow. Any infraction of the policies will warrant immediate disciplinary action (refer to Clinical Objectives for Professional Behavior).

The disciplinary action policy commences upon enrollment in the Radiography and/or Medical Imaging program. Anecdotal reports/records received while in the Radiography program will progress with the student while pursuing the Medical Imaging degree.

1. If a problem concerning a student develops in a Radiography course/lab/clinical, the faculty/clinical liaison shall provide the program director and/or clinical coordinator an anecdotal record (refer to Sample Clinical Forms located in the Program Handbook) detailing the incident and all supporting documentation, as soon as possible.
2. Upon receipt of the anecdotal record, the program director and/or clinical coordinator will investigate the problem, as well as the circumstances surrounding the incident. The Program Director and/or clinical coordinator, in consultation with the faculty and

administration, will review the anecdotal record and any prior infractions of the disciplinary policy to determine the most appropriate plan of action for the student which will be outlined in the anecdotal record.

3. Upon reviewing the anecdotal record, students will be consulted on the recommendations/plan of action and required to sign it, thereby agreeing to fulfill its requirement(s) and conditions to progress or graduate.
4. Students who do not wish to engage in the plan of action, or who fail to fulfill the requirements of the anecdotal record will be dismissed. Students who wish to appeal the decision may do so through the Clarkson College petition process.
5. Infractions of the disciplinary policy <u>may</u> result in a Code of Conduct violation. Subsequent infractions of the disciplinary policy <u>will</u> result in a Code of Conduct violation.
6. Any student who is dismissed from the Radiography program and is dually enrolled in the Medical Imaging program will be dismissed from both academic programs as part of the Progression Policy.

<u>Note:</u> Severe infractions of Clinical Affiliate or College/Program Policies may warrant immediate suspension without the previously described steps (i.e., unethical behavior, falsifying records, abusing patient rights, collusion, cheating, plagiarism, etc.).

Educational Contract and Remediation Options

Mastery of course concepts is required for matriculation in the Radiography and Medical Imaging Programs. An Educational Contract may be established to provide guidelines, recommendations, and resources for students' academic success. Educational Contracts may include a referral to the Success Center, an outside counselor, additional research, additional course work, additional clinical time, or other resources as indicated.

The information from an Educational Contract will be shared with faculty teaching in the same course/lab/clinical as well as the Program Director.

1. If an academic issue concerning a student develops in a Radiography course/lab/clinical, the faculty shall inform the program director of the Educational Contract (refer to Sample Clinical Forms located in the Program Handbook) as soon as possible.
2. Upon reviewing the Educational Contract, students will be informed of the recommendations/requirements and required to sign it, thereby agreeing to fulfill its requirement(s) and conditions.
3. Student's completion of the requirements/recommendations (met or not met) will be documented and placed in the student's file in the Program Director's office.
4. Successful completion of the educational contract does not guarantee successful completion of the course. Students must pass all aspects of the course within the set guidelines of the course syllabus to continue matriculating in the Radiography/Medical Imaging program.

Q. Clarkson College MRI Safety Screening Procedure

In clinical, the radiography student may have the opportunity to enter the MRI suite. In MRI, the magnetic field is **ALWAYS** on; therefore, entering the MRI suite with ferromagnetic objects or an implanted device poses a threat to the student or anyone in the suite and is strictly prohibited. Please review the American College of Radiology's guidelines for MRI safety: ACR Guidance Document on MR Safe Practices: 2013
To assure that Clarkson College radiography students employ proper MRI safety practices the following protocols are in place:

- All students must complete an MRI safety-screening sheet prior to attending clinical to ensure that they are safe to enter the MRI suite.
- All students must comply with each clinical site's policy and procedures pertaining to ferromagnetic or metallic objects in the MRI suite to avoid ferromagnetic projectiles from entering the MRI suite.
- All students must watch an MRI safety video prior to attending clinical.

R. Clarkson College Radiation Protection Plan

The Radiography Program complies with all radiation safety guidelines adopts for Radiation Protection. It is the program's philosophy that any individual, regardless of age, shall be protected from unnecessary radiation exposure.

I. Personal Radiation Safety

All students and faculty who are associated with the operation of an x-ray device are subject to the occupational exposure limits as stated by the "Summary of Recommendations-NCRP Report No. 116." Therefore, all students and faculty will wear a personal dosimeter and protective apparel whenever the possibility of exposure to medical ionizing radiation exists in the clinical environment and on-campus lab.

a. Guidelines for the Personal Dosimeter
    i. All radiography students will be supplied with a personal dosimeter (OSL). The dosimeter must be worn at all times while in the clinical setting. Students who are not wearing a personal dosimeter will be asked to leave the clinical education site and not return until they have obtained their personal dosimeter.
b. Lost Personal Dosimeter Policy
    i. Students who lose or fail to have their personal dosimeter with them at the clinical education site will not be permitted to stay in the clinic. If the student left the badge at home, he or she will be allowed to leave the facility to go and get the badge. However, the missed clinical time must be made up as required by the program's clinical attendance policy. If the badge has been lost, the student must re-order the badge through the clinical coordinator. Replacement badges are re ordered at the student's expense.
    ii. Students who have lost their badges will not be allowed to return to the clinic until a new badge has been obtained.
c. Appropriate Use of the Personal Dosimeter

i. Whenever the personal dosimeter is worn, it shall be placed at the collar. In fluoroscopic procedures, or any other procedures that require the use of lead aprons, the dosimeter shall be worn at the collar outside of the apron.
ii. Protect the dosimeter from excessive heat and moisture. If the personal dosimeter is accidentally washed and dried, the badge may be ruined and any reports from that badge would be erroneous. The student must inform the clinical coordinator and documentation of the incident will be sent to the dosimetry report service.

d. Exposure Monitoring
    i. Student personal dosimeters will be replaced each month (or whenever the current dosimetry reporting service issues new dosimeters). Additionally, each month, the clinical coordinator receives a dosimetry report from the dosimetry reporting service stating the exposure that each student received during the prior month. The monthly report is posted in the Lower Level radiology classroom for each student to review and initial. In order to maintain confidentiality, the following student information is excluded, the social security number and birth date. The report consists of the following measurements:
        - DDE (Deep Dose Equivalent)
        - LDE (Lens Dose Equivalent)
        - SDE (Shallow Dose Equivalent)
    ii. Each of the above are given for the following periods:
        - Month of exposure
        - Quarterly accumulation
        - Year to date
        - Lifetime

Upon receipt of the report, the clinical coordinator will review the results and monitor student exposure levels to ensure that NRC Regulations are not exceeded. Students will be required to acknowledge and initial the reports as they are received. A copy of each report will be provided to the students for their personal records upon completion of the program and a written request. The original reports will be maintained by the program, as required by the Nebraska Radiation Control Regulations.

In the event that a badge report should exceed .83mSv (83 mrem)/month (20% of the NRC Monthly Occupation Dose Limit) during a clinical rotation, the clinical coordinator (RSO) will aid in determining the cause and make corrective measures as needed. Meetings will be set with the department manager, clinical liaison, student and clinical coordinator to determine the cause and if need be, a physicist will be brought in to investigate further. Upon determining the causative factor/s, a counseling session will be held with the student to reduce future exposures. Documentation of the session will be placed in the student file.

e. Completion of RT 271, Radiation Protection
All students must successfully complete RT 271 before they will be allowed to attend the clinical portion of the program.

f. Pregnancy Policy
Should a student become pregnant while enrolled in the Radiography program, she has the option of disclosing in writing, at any time, her pregnancy. If the student elects not to disclose the pregnancy, she will not be considered pregnant by program faculty.

In the event that a student voluntarily discloses her pregnancy in writing, she will be asked to complete the "Declaration of Pregnancy Form." She will also be given a copy of the NRC's "Instruction Concerning Prenatal Radiation Exposure" (Regulatory Guide 8.13 found in the Student Clinical Handbook Section Pregnancy Health Risks, V.). After disclosure of the pregnancy, the student may choose from the following program options as specified in Section D of the Radiography Program, Program Policies:

1. Continue in the program with no alterations of clinical schedule.
2. Continue in the program with alternations of clinical schedule that may or may not include reduction of fluoroscopy, surgical or portable rotations.
3. Withdraw or take a leave of absence from the Program.
4. Submit a written withdrawal from declaration of pregnancy.

Students who elect to stay enrolled in the program will be asked to submit a Medical Release Form completed by her physician stating the precautions, if any that should be followed during the pregnancy. The student will be required to complete the form prior to returning to the clinical environment.

The pregnant student who continues in the program will be issued a second monitoring badge to be worn underneath the apron at waist level. Exposure levels will be monitored on a monthly basis to ensure that badge reports are in compliance with NRC regulations. In the event that the badge report should equal or exceed .1mSv or 10mrem/month (20% of the NRC Monthly Gestation Dose), the student will be brought on campus to explain the elevated reading. A meeting will be set up with the student, clinical coordinator (RSO), and program director. The student will be counseled on methods to reduce future exposures. The student will remain on routine clinical rotations unless badge reports approach maximum levels. Should this occur, the student will be removed from clinical and can return to complete the clinical requirements after the baby has been born.

Although radiation exposure will be monitored closely throughout the pregnancy, the student is expected to utilize her knowledge of radiation control principles at all times to minimize her exposure. This includes appropriate use of time, distance and shielding techniques. Additionally, both the badge issued for pregnancy monitoring and the monthly body badge must be worn by the student at all times while in the clinical setting.

The student is advised that if she is unable to meet the didactic and/or clinical objectives due to conditions of the pregnancy or delivery, graduation may be delayed. Missed clinical experience must be made up prior to graduation. Refer to the Student Pregnancy Policy in Section IV – D.

II. Radiation Safety in the Laboratory

A. Human Exposure:
At no time will humans be exposed to ionizing radiation in the campus laboratory. Any student who exposes a human in the laboratory will be dismissed from the program.

III. Radiation Safety in the Clinical Environment

A. Clinical Supervision Policy
In order to assure the safety of patients and students, student supervision in the clinical setting is based on student competence. Prior to proving competency in a radiographic procedure, the exam is conducted under direct supervision. The Joint Review Committee on Education in Radiologic Technology (JRCERT) defines direct supervision as:
"Student supervision by a qualified practitioner who reviews the procedure in relation to the student's achievement, evaluates the condition of the patient in relation to the student's knowledge, is present during the procedure, and reviews and approves the procedure."

After competency has been proven, radiographic procedures may be conducted under **indirect supervision**. "The JRCERT (2014) defines indirect supervision as that supervision provided by a qualified radiographer immediately available to assist students regardless of the level of student achievement. 'Immediately available' is interpreted as the physical 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 on patients" (p.52).

Should a student have to **repeat an image**, the image must be repeated under the direct supervision of a qualified practitioner, regardless of the student's level of competency. When documenting repeat images, the student must include the registered technologist initials that provided direct supervision during the repeat.

Note: At no time will a student perform a mobile, surgical or repeat exam without direct supervision, even if a competency has been successfully completed.

Any student that does not follow the Repeat and Direct/Indirect Supervision guidelines will be subject to the Disciplinary Action Policy and Procedure process.

B. Student Safety

1. Use of Personal Dosimeter:
   As mentioned in I.A above, the dosimeter must be worn at all times while in the clinical setting. Students who are not wearing a personal dosimeter will be asked to leave the clinical education site and not return until they have obtained their badge. Refer to I.B for the program's lost dosimeter policy.

2. Protective Apparel/Barriers
   Protective apparel will be worn during any procedure in which there is risk of radiation exposure to the student. This includes, but is not limited to, general diagnostic, fluoroscopy, portables, and c-arm procedures.

3. Fluoroscopic Procedures:
   Radiography students are allowed to operate fluoroscopic equipment under the direct supervision of a radiologist, physician, or registered technologist. While performing or assisting in fluoroscopic procedures, students will wear appropriate protective barriers as stated in the clinical education site's policy and procedures.

   Students are encouraged to wear all protective barriers that are available to them at the clinical education sites (i.e. aprons, thyroid shields, goggles).

4. Mobile Procedures:
   Students will abide by the policies set forth in III.A and III.B while performing mobile radiographic procedures.

   Additionally, when students are performing mobile procedures they will notify all persons in the area of a radiographic exposure, prior to making the exposure. This will be done by clearly announcing that an exposure is about to be taken. The student will then allow the individuals ample to move to a safe area before making the exposure.

   Students are required to wear protective apparel/barriers when they are in charge of exposing a patient during a mobile procedure. The radiation protection principles of time, distance, and shielding must be applied.

5. Holding of Patients:
   Clarkson College Radiography students must understand basic radiation safety practices prior to assignment to clinical settings. As students' progress in the program, they must become increasingly proficient in the application of radiation safety practice.
   Students are required to follow the guidelines as listed below:

   1. Students must not hold image receptors during any radiographic procedure.
   2. Students should not hold patients during any radiographic procedure when an immobilization method is the appropriate standard of care.

a. Students should attempt to utilize an available mechanical holding devices prior to holding a patient during an exposure.
b. If mechanical methods of restraint/immobilization are not feasible, non-occupationally exposed persons wearing appropriate protective apparel should perform this function.
c. However, if extenuating circumstances occur and a student finds themselves in a situation that requires them to remain in the room during an exposure, the student must follow the appropriate guidelines set below:

1) Wear appropriate protective barriers. (i.e. lead aprons, thyroid shield)

2) Must stand out of the path of the primary beam.

3) Holding of the patient must be documented via an anecdotal report found in the student's clinical log book and in the Sample Forms Section X. of the Radiography Student Handbook. Documentation of the event will allow clinical instructors and faculty to monitor the frequency of procedural exposure.

C. Patient Safety

I. Gonadal Shielding

According to Statkiewicz (2014) "Reproductive organs should be protected from exposure to the useful beam when they are in or within approximately 5 cm of a properly collimated beam, unless this would compromise the diagnostic value of the study"(pg. 300). This practice shall be followed unless the shielding interferes with the diagnostic procedure.

II. Specific Area Shielding

Whenever possible, radiosensitive tissue, other than the gonads, should be shielded from the primary beam. Students should make every effort to shield radiosensitive tissue such as marrow, breast, and the lens of the eye from the primary beam whenever it does not interfere with the radiographic procedure.

III. Protection of Non-Patients

Students shall make every effort to protect individuals not intended for radiation exposure, but remain in the vicinity of the scattered beam. Protective barriers such as aprons will be given to nursing staff, family members involved in holding patients, and any others who must remain near the vicinity of an x-ray source during an exposure. In mobile radiography, this also includes protecting

a. Patients in adjacent beds in non-private hospital rooms, or bays.

b. Staff and ancillary personnel shall be protected from the direct scatter radiation by protective aprons or whole body protective barriers of not less than 0.25 mm lead equivalent.
c. Other patients who cannot be removed from the room shall be protected from the direct scatter radiation by whole body protective barriers of 0.25mm lead equivalent or shall be positioned that the nearest portion of the body is at least two meters from both the tube head and the nearest edge of the useful beam.

All of the items discussed above in Section III, Radiation Safety in the Clinical Environment, represent the minimal radiation protection steps to be taken as mandated by either state or federal regulations and laws. If a clinical education site has additional policies and procedures that exceed the minimal protection requirements as set forth by the laws and regulations, then those policies and procedures supersede the program's radiation protection policies. Therefore, in those situations, the student is bound to the clinical education site's stricter policies.

IV. Radiation Safety Dose Limits for Clarkson College Radiography/Medical Imaging Students

In the event that a badge report should exceed or .83 mSv (83 mrem)/month (20% of the NRC Monthly Occupation Dose Limit) during a clinical/externship rotation, the clinical coordinator (RSO) will aid in determining the cause and make corrective measures as needed. Meetings will be set with the department manager, clinical liaison, student and clinical coordinator or externship instructor to determine the cause and if need be, a physicist will be brought in to investigate further. Upon determining the causative factor/s, a counseling session will be held with the student to reduce future exposures. Documentation of the session will be placed in the student file.

Consultation Form

The following student has been counseled regarding their monthly and/or yearly occupational dose limit.

I, _____, on this date, _____, have been counseled regarding my badge report _____ mrem for the monitoring period of _____ that exceeded the .83mSv (83 mrem)/month set by the Clarkson College Radiography/Medical Imaging Program as the monthly occupational dose limit.

The following persons were notified and included in the investigation, as deemed necessary, to determine the cause of the dose.

_____ _____

Department Manager/Date Clinical Liaison/Date

_____ _____

Clinical Coordinator or Externship Instructor/Date Physicist/Date

Cause of dose was determined to be from

_____

_____

_____

Additional comments & Final recommendations:

_____

_____

_____

_____ _____

RSO & Date Student & Date

Declaration Form for Radiation Badge Issues

Please check the appropriate issue associated with your radiation badge.

- ☐ Lost
- ☐ Left in fluoroscopy room
- ☐ Left in surgery suite
- ☐ Left on lead apron
- ☐ Went through washer and/or dryer
- ☐ Other

_____

I, _____, am reporting an issue with my radiation badge for the _____ monitoring period. I am aware that this could affect the results of my monthly radiation dose report. Additionally, if my badge is lost, I am not able to attend clinical until a replacement badge has been ordered/assigned by the clinical coordinator/RSO.

_____
Student name/Date

References:

Joint Review Committee on Education in Radiologic Technology (JRCERT). (2014). *Standards for an accredited educational program in radiography* [PDF document]. Retrieved from http://www.jrcert.org/programs-faculty/jrcert-standards/

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2018-2019

Radiography Program
Pregnancy Health Risks

V. Pregnancy Health Risks

Adapted from the U.S. Nuclear Regulatory Guide 8.13, Instructions Concerning Prenatal Radiation Exposure

Revision 3 June 1999

U.S. Nuclear Regulatory Guide
REGULATORY GUIDE

Office of Nuclear Regulatory Research
Regulatory Guide 8.13 (Draft was issued as DG-8014)

INSTRUCTION CONCERNING PRENATAL RADIATION EXPOSURE

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 non-pregnant 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.

2. United Nations Scientific Committee on the Effects of Atomic Radiation, Sources and Effects of Ionizing Radiation, United Nations, New York, 1993.
3. R. Doll and R. Wakeford, "Risk of Childhood Cancer from Fetal Irradiation," The British Journal of Radiology, 70, 130-139, 1997.
4. 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.
5. 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.
6. National Council on Radiation Protection and Measurements, Risk Estimates for Radiation Protection, NCRP Report No. 115, Bethesda, MD, 1993.
7. National Radiological Protection Board, Advice on Exposure to Ionizing Radiation During Pregnancy, National Radiological Protection Board, Chilton, Didcot, UK, 1998.
8. 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)

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.

Declaration of Pregnancy

(to be voluntarily completed by student of the Clarkson College Radiography Program)

I, _____, on this date, _____, declare that I am pregnant. This declaration is in accordance with the recommendations of the NRC and the State of Nebraska radiation protection regulations. The estimated date of conception (month and year) is _____.

This declaration is submitted to the clinical coordinator (RSO), Shelli Weddum, and/or program director, Ellen Collins.

(Refer to the Student Clinical Handbook for Pregnancy Health Risks, Section V.)

Signature: _____ Date: _____

Upon declaration, the student, clinical coordinator and program director will set up a counseling session to further discuss the student's options for continuance in the clinical setting or a leave of absence from the program. (Refer to the Student Pregnancy Policy in the Clinical Handbook, Section IV-D.) Students will also be referred to the Title IX Coordinator.

The following options are available to the student:

1. Continue in the program with no alterations of clinical schedule.
2. Continue in the program with alternations of clinical schedule that may or may not include reduction of fluoroscopy, surgical or portable rotations.
3. Withdraw or take a leave of absence from the Program.
4. Submit a written withdrawal from declaration of pregnancy.

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Radiography Program
Health and Safety Requirements

VI. Health and Safety Requirements

Clarkson College is committed to providing a safe and healthy environment for all members of our campus community, as well as the patients many of our students interact with throughout their education. To protect yourself from certain conditions of risk you may be exposed to, it is essential for you to complete specific health and safety requirements according to your academic program needs. Failure to comply with such requirements will prevent class and/or clinical attendance. All health and safety requirements are at the expense of the student and are non-refundable.

For additional information about this process, visit the Health and Safety section within ClarksonCollege.edu website.

Prior conviction of a felony or misdemeanor may make a student ineligible to participate in clinical experiences and thus ineligible to complete the scheduled program of study. If a student is convicted of a felony or misdemeanor during the time he/she is a student, it is the student's responsibility to inform his/her program director immediately.

Successful completion of the program and ARRT certification does not guarantee ability to obtain a state license.

Health and Safety Requirement: All Radiography students must meet the following requirements.

- Written copy of recent health examination completed by a licensed health care provider, which verifies student's health status is sufficient to complete their selected program of study
- Evidence of TD (Tetanus booster) within past 10 years
- Reactive Varicella titer or evidence of chicken pox immunity
- Evidence of MMR (measles, mumps & rubella) immunizations; or reactive Rubella titer and Rubeola titers; or other evidence of immunity to measles (requirement is waived for students born before 1956)
- Evidence of coverage by a comprehensive health insurance plan (due monthly for monthly coverage, annually for annual coverage, etc).
- Annual Tuberculosis (TB) screening, and Non-reactive PPD (skin test) or Negative chest x-ray (to be used if PPD has ever been positive) or Absence of symptoms of TB if prior history of reactive PPD and negative chest x-ray, as noted by the primary health care provider.
- Current Health Care Provider Basic Life (BLS) Certification of Completion
- Appropriate Hepatitis B immunization. First of series of three immunizations prior to registration and subsequent completion of the Hepatitis B immunization protocol and reactive titer. If titer is non-reactive, student must receive a second series of Hepatitis B immunizations followed by a reactive titer. If the second titer is non-reactive, no further immunizations are required, but a core antibody is to be obtained or documentation that no further Hepatitis B testing is necessary from the primary health care provider.

Additional Requirements may be required based on the affiliation agreement with the clinical facility.

Mandatory Training:

Prior to the student's clinical rotation, the student must complete both a HIPAA and Bloodborne Pathogen Training Module.

HIPAA Training:

The Health Insurance Portability and Accountability Act (HIPAA) is in effect and is being adhered to by the clinical sites. Students may be asked to sign HIPAA confidentiality statements during the clinical rotation. Disclosure of confidential information may result in the student's dismissal from the Radiography program. Students must complete a HIPAA training module and quiz prior to the start of a clinical rotation.

Bloodborne Pathogen Training:

According to the Occupational Safety and Health Administration's (OSHA) Bloodborne Pathogen (BBP) Standard, training must be received when first assigned to tasks where occupational exposure to BBP is possible. The training must occur annually or when changes take place to the training module. Students must complete a Bloodborne Pathogens module and quiz prior to the start of a clinical rotation.

MRI Safety

- All students must complete an MRI safety-screening sheet prior to attending clinical to ensure that they are safe to enter the MRI suite.
- All students must comply with each clinical site's policy and procedures pertaining to ferromagnetic or metallic objects in the MRI suite to avoid ferromagnetic projectiles from entering the MRI suite.
- All students must watch an MRI safety video prior to attending clinical.

Refer to Section IV. Q. MRI Safety Screening

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Radiography Program
Compliance with JRCERT Standards

Clarkson College

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VII. Compliance with JRCERT Standards

The **Associate of Science in Radiography** program at Clarkson College is fully accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). As an accredited program, the Radiography program is required to meet standards which can be located on campus in the Clarkson College Library, Radiography Lab and found at: http://www.jrcert.org/acc_standards.html

Complaints or concerns involving accreditation issues should be directed to the program director or the clinical coordinator. Upon receipt of any allegations of non-compliance with the JRCERT standards, the program director and the faculty involved will investigate the report within three weeks. If an incident of non-compliance is identified, the program director and faculty will take action within the following three weeks to remedy the situation. A student will be provided a response in writing. If the student continues to feel the program is not in compliance with the JRCERT standards they may contact the organization at:

Joint Review Committee on Education in Radiologic Technology (JRCERT)
20 N. Wacker Drive, Suite 2850 Chicago, IL 60606-3182 **PH** 312.704.5300
www.jrcert.org

Clarkson College is accredited by The Higher Learning Commission
230 South LaSalle Street, Suite 7-500 Chicago, IL 60604-1411 **PH** 800.621.7440
www.hlcommission.org/

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Radiography Program
Clinical Hours Documentation Contract

CLARKSON COLLEGE
Radiography Program

CLINICAL HOURS DOCUMENTATION CONTRACT

Clock in/out Procedures:

1. You will be required to *clock in/out each day. However, do not clock in/out for lunch breaks unless you leave the building.
2. Falsification of time records will result in disciplinary actions which may include immediate dismissal from the program.
3. You may **NOT** clock in/out for anyone else. Clocking in/out for another person will result in Disciplinary Action as stated in the Radiography Student Handbook.
4. Failure to clock in/out: Report to the clinical liaison that you forgot to clock in/out.
5. You will then need to file a "Time Exception" which is a substitute time record. The "Time Exception" record must include the initials of a registered technologist and/or clinical liaison before hours can be approved. Once that has been completed, the clinical liaison can approve the time change. This must be done on the day of the incident. Time Exception records must be maintained at $\leq$20% for each semesters total time records; hence it should be used minimally.
6. Approval of time records will be submitted by the clinical liaison weekly.
7. Clinical hours are detailed in the syllabus and clinical schedules and may not be altered without prior approval.

I have read and understand the Clinical Hours Clock In/Out Procedures. I also understand that failure to follow the outlined procedures will result in appropriate disciplinary action(s), up to dismissal from the program. I further understand that the rules listed in the Clinical Handbook apply to the process.

_____ _____
Student Signature Date

_____ _____
School Official Signature Date

***** Clocking in/out may be defined as; 1) via the online clinical record keeping web based clinical time clock system and/or 2) time exception in and/or out with initials from department personnel.

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Radiography Program
Signature Page

Clarkson College

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IX. Radiography Student Handbook Signature Page

RADIOGRAPHY STUDENT HANDBOOK SIGNATURE PAGE

I, the undersigned, have received the Clarkson College Student Radiologic Technologist's Handbook, which includes, but not limited to, the Program Policies and Procedures, Academic Integrity, Professionalism, Employment, Pregnancy Policy, Disciplinary Action Policy and the Clarkson College Radiation Protection Plan. The faculty has discussed, I have read, and I have had the opportunity to discuss any concerns or questions concerning the manual.

I agree to abide by all of the policies, rules and guidelines, and I understand that failure to do so can result in appropriate disciplinary action, up to and including dismissal from the Radiography Program.

I further understand that additional policies/procedures may be added/deleted at the discretion of the program. These changes will be discussed and distributed in written form as an addendum to this manual.

Student Signature:_____

Date:_____

Program Official:_____

Date:_____

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Radiography Program
Declaration of Pregnancy

Clarkson College

Prepare to be the **best.**

Declaration of Pregnancy

(to be voluntarily completed by student of the Clarkson College Radiography Program)

I, _____, on this date, _____, declare that I am pregnant. This declaration is in accordance with the recommendations of the NRC and the State of Nebraska radiation protection regulations. The estimated date of conception (month and year) is _____.

This declaration is submitted to the clinical coordinator (RSO), Shelli Weddum, and/or program director, Ellen Collins.

(Refer to the Radiography Student Handbook for Pregnancy Health Risks, Section V.)

Signature: _____ Date: _____

Upon declaration, the student, clinical coordinator and program director will set up a counseling session to further discuss the student's options for continuance in the clinical setting or a leave of absence from the program. (Refer to the Student Pregnancy Policy in the Radiography Student Handbook, Section IV-D.) Student will also be referred to the Title IX Coordinator.

The following options are available to the student:

1. Continue in the program with no alterations of clinical schedule.
2. Continue in the program with alternations of clinical schedule that may or may not include reduction of fluoroscopy, surgical or portable rotations.
3. Withdraw or take a leave of absence from the Program.
4. Submit a written withdrawal from declaration of pregnancy.

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Radiography Program
Anecdotal Record
Educational Contract
Incident Form

CLARKSON COLLEGE
RADIOGRAPHY PROGRAM
Anecdotal Record

Student's Name_____ **Date**_____

Imaging Site_____ **Semester: Fall Spring Summer Year**_____
(Please Circle)

Technologist Involved:_____ **Patient/Individual Involved:** _____

NATURE OF THE INCIDENT

(Circle One)

Behavioral **Psychomotor** **Cognitive**

Description of Incident (be as explicit as possible): _____

_____

_____

_____

_____

Student's Comments: _____

_____

_____

_____

_____

Radiologic Technologist's Suggestions for Corrective Action: _____

_____

_____

_____

_____

Actions Taken by the Clinical Coordinator: _____

_____

_____

_____

_____

Program Director's Comments: _____

_____

_____

_____

_____ _____

Faculty/Technologist's Signature Student's Signature*

_____ _____

Date Date

* A signature acknowledges that the incident was discussed with the student and is in NO way to be construed as an admission of denial nor guilt.

_____ _____

Clinical Coordinator's Signature Program Director's Signature

_____ _____

Date Date

Educational Contract

Student Name:
Date:

Concerns for Progression
Student A is currently not passing the RT 120 Radiographic Exposures I course. Students must pass the course with a 75% or greater to continue matriculating through the Radiography Program.

Below is a list of recommended resources and guidelines to help students to be successful in the Radiography/Medical Imaging Programs. The items listed below will support the student's learning processes through the theory, lab, and/or clinical components of the program.

Items that are checked will be considered a REQUIREMENT of the educational contract.

_____ Counselor Services _____Met _____Not Met _____
Faculty Signature and Date

_____Tutor _____Met _____Not Met _____
Faculty Signature and Date

_____Review Sessions (as applicable) _____Met _____Not Met _____
Faculty Signature and Date

_____Workshops _____Met _____Not Met _____
Faculty Signature and Date

_____Academic Skill Building
_____Test Anxiety
_____Time Management

_____Writing Lab _____Met _____Not Met _____
Faculty Signature and Date

_____Workbooks _____Met _____Not Met _____
Faculty Signature and Date

_____Outlining chapters _____Met _____Not Met _____
Faculty Signature and Date

_____Flashcards _____Met _____Not Met _____
Faculty Signature and Date

Terms of Completion: These guidelines will remain in effect until the completion of the course.

***Please note that successful completion of the educational contract does not guarantee successful completion of the course. Students must pass all aspects of the course within the set guidelines of the course syllabus to continue matriculating in the RT/MI program.*

I have met with the instructor, read and understand the above contract.

_____ _____
Student Signature and Date Faculty Signature and Date

_____ _____
Director Signature and Date Additional signatures as needed

Clarkson College

Prepare to be the best.

PERSONAL INFORMATION

Name: SSN:

Address:

Home Number: DOB:

Work Number: Program:

INCIDENT INFORMATION:

Date of Incident: Time of Incident:

Location of Incident:

INJURY INFORMATION:

Describe the activity that caused the incident/injury:

Describe the injury/illness:

Any objects, equipment, or substance directly involved?

❒ No ❒ Yes (describe):

Did injury necessitate need for treatment? ❒ No ❒ Yes

MEDICAL EVALUATION

Seen in Emergency Department? ❒ No ❒ Yes

Seen by Student Health (Clarkson Family Medicine)? ❒ No ❒ Yes

Seen by Health Care Provider? ❒ No ❒ Yes

If Yes, Physicians Name and Location:

Medical Evaluation/Treatment:

Physician's Signature:

SIGNATURES

Signature of injured party: Date:

Director/Instructor Comments:

Director/Instructor Signature: Date & Time notified:

FORWARD TO MANAGER OF FACILITIES

2018-2019

Radiography Program
Sample Clinical Forms

Clarkson College

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RADIOGRAPHY PROGRAM
Clinical Summary Sheet

Name _____ **Entering Fall _____**

Semester	**Clinical Site**	**Clinical Hours** (exclude 30 min. lunch)	**Affective Evaluations (Scores)**	**Psychomotor Competencies**	**Rechecks**	**Reviewed Procedure Sheet**	**Clinical Staff Evaluation**
Fall		**___/**240	#1 _____ #2 _____	**8 Required** **_____**Mandatory _____Elective	N/A	Variety of Procedures ☐ Yes No* *Comments required	☐ Yes
Spring		**___/**480	#1_____ #2_____ #3_____	**26 Required** **_____**Mandatory **_____**Elective	____/13	Variety of Procedures ☐ Yes ☐ No* *Comments Required	☐ Yes
Summer		___/360	#1_____ #2_____	**18 Required** **_____**Mandatory _____Elective	____/9	Variety of Procedures ☐Yes ☐ No* *Comments Required	☐ Yes
Total		___1080		**52 Required** ___/37 Mandatory ___/15 Elective	**____/**22		

Notes:

Fall (year)

Reviewed by:

Spring (year)

Reviewed by:

Summer (year):

Reviewed by:

CLARKSON COLLEGE
RADIOGRAPHY PROGRAM
Radiography Competency Requirements

Fifty-two (52) competencies are required for graduation. Students must demonstrate competency in all 37 of the mandatory and at least 15 of the elective Radiological Procedures. Candidates must select one elective procedure from the head section. Candidates must select either an Upper GI or Barium Enema plus one other elective from the fluoroscopy section. A maximum of eight (8) simulations may be completed in the Summer Semester. Simulations may be either mandatory or electives, but the following mandatory exams **must** be completed on a patient (all contrast media studies and C-arm Procedures).

IMAGING PROCEDURES

THORAX	Mandatory	Elective	Date Completed	Age	Pathology	Patient (P) or Simulated (S)	Verified By
Chest, routine	**M**						
Chest, age 6 years or younger	**M**						
Chest, routine, Geriatric*	**M**						
Chest, wheelchair or stretcher	**M**						
Ribs	**M**						
Chest, decubitus		**E**					
Sternum		**E**					
UpperAirway(Soft Tissue Neck)		**E**					
EXTREMITIES	Mandatory	Elective	Date Completed	Age	Pathology	Patient (P) or Simulated (S)	Verified By
Finger or Thumb	**M**						
Hand	**M**						
Wrist	**M**						
Forearm	**M**						
Elbow	**M**						
Humerus	**M**						
Shoulder	**M**						
Foot	**M**						
Ankle	**M**						
Tibia and Fibula	**M**						
Knee	**M**						
Patella		**E**					
Femur	**M**						
Trauma Upper Extremity (*non shoulder)	**M**						
Trauma Lower Extremity	**M**						
Upper Extremity, age 6 years		**E**					

or younger							
Upper Extremity, Geriatric*	**M**						
Lower Extremity, age 6 years of younger		**E**					
Lower Extremity, Geriatric*	**M**						
Scapula		**E**					
Clavicle	**M**						
Acromioclavicular Joints		**E**					
Trauma Shoulder (Y view, Transthoracic or Axillary)	**M**						
Toes		**E**					
Os Calcis		**E**					
HEAD – Candidates must select at least one (1) procedure from this section.	Mandatory	Elective	Date Completed	Age	Pathology	Patient (P) or Simulated (S)	Verified By
Facial Bones		**E**					
Nasal Bones		**E**					
Paranasal Sinuses	**M**						
Skull	**M**						
Orbits		**E**					
Zygomatic Arches		**E**					
Mandible		**E**					
Temporomandibular Joints		**E**					
SPINE AND PELVIS	Mandatory	Elective	Date Completed	Age	Pathology	Patient (P) or Simulated (S)	Verified By
Cervical Spine	**M**						
Thoracic Spine	**M**						
Lumbosacral Spine	**M**						
Cross-Table (horizontal beam) Lateral Spine	**M**						
Pelvis	**M**						
Hip	**M**						
Cross-Table (horizontal beam) Lateral Hip	**M**						
Scoliosis Series		**E**					
Sacrum and/or Coccyx		**E**					
Sacroiliac Joints		**E**					
ABDOMEN	Mandatory	Elective	Date Completed	Age	Pathology	Patient (P) or Simulated (S)	Verified By
Abdomen Supine (KUB)	**M**						
Abdomen, Upright	**M**						
Abdomen, Decubitus		**E**					
Intravenous Urography		**E**					

Abdomen, age 6 or younger		**E**					
Fluoroscopy Studies – Candidates must select either Upper GI or Barium enema plus one other procedure from this section	Mandatory	Elective	Date Completed	Age	Pathology	Patient (P) or Simulated (S)	Verified By
Esophagus Study		**E**					
Upper G.I. Series	**M**						
Small Bowel Series		**E**					
Barium Enema (single or double contrast)	**M**						
Myelography		**E**					
Cystography or Cystourethrography		**E**					
ERCP		**E**					
Arthrography		**E**					
Hysterosalpingography		**E**					
MOBILE AND SURGICAL	Mandatory	Elective	Date Completed	Age	Pathology	Patient (P) or Simulated (S)	Verified By
Portable Chest	**M**						
Portable Abdomen	**M**						
Portable Orthopedics	**M**						
Mobile Study, age 6 or younger		**E**					
C-Arm Procedure (Requiring Manipulation to Obtain More Than One Projection)	**M**						
C-Arm Procedures (Requiring Manipulation Around a Sterile Field)	**M**						

***Geriatric Patient – 65 yrs or older (Physically or Cognitively Impaired as a Result of Aging)**

***Trauma is considered a serious injury or shock to the body. Modifications may include variations in positioning, minimal movement of the body part, etc.**

General Patient Care

Requirement: Candidates must be CPR certified and demonstrate competence in the remaining nine patient care activities listed below. The activities should be performed on patients; however, simulation is acceptable (see end note) if state or institutional regulations prohibit candidates from performing the procedures on patients.

General Patient Care	Date Completed	Competence Verified By
CPR		
Vital signs – Blood Pressure		
Vital Signs – Temperature		
Vital Signs – Pulse		
Vital Signs - Respiration		
Vital Signs – Pulse Oximetry		
Sterile and aseptic technique		
Venipuncture		
Transfer of patient		
Care of patient medical equipment (e.g., oxygen tank, IV tubing)		

Note: The ARRT requirements specify that certain clinical procedures may be simulated. Simulations must meet the following criteria: (a) the student is required to competently demonstrate skills as similar as circumstances permit to the cognitive, psychomotor, and affective skills required in the clinical setting; (b) the program director is confident that the skills required to competently perform the simulated task will generalize or transfer to the clinical setting, and, if applicable, the student will evaluate related images. Examples of acceptable simulation include: demonstrating CPR on a mannequin; positioning a fellow student for a projection without actually activating the x-ray beam, and performing venipuncture by demonstrating aseptic technique on another person, but then inserting the needle into an artificial forearm or grapefruit.

CLARKSON COLLEGE
RADIOGRAPHY PROGRAM
Competency Evaluation Form

Student's Name_____ **Date** _____

Imaging Site: Clarkson College Lab **Semester: Fall Spring Summer Year**_____
(Please Circle)
Evaluator_____ **Exam:** _____

Type of Evaluation: Competency Recheck Simulation
(Please Circle)

The student will notify the clinical liaison when ready to perform a competency. The examination/procedure will be monitored by the evaluator. Starred (*) tasks are critical to successful completion of competency. If the student fails to perform a starred task, the evaluation process is automatically terminated and the student receives an unsuccessful competency evaluation. A grade of 75% must be obtained in order to pass.

Please mark "Yes" if the student has performed the specific objective, otherwise mark "No". Each category must be marked, unless the criteria is not applicable (N/A). Written comments about the examination and student's ability are encouraged.

	General	***Yes***	***No***	***N/A***
1.	Prepares physical facilities, provides clean, orderly work area and equipment.			
2.	Evaluates requisition for procedure(s) and patient information			
3.	Identifies correct patient. *			
4.	Introduces self to patient. *			
5.	Assesses patient's mental and physical capabilities and modifies the exam accordingly.			
6.	Request starting date of last menstrual period for female patients.*			
7.	Acquires appropriate clinical patient history by utilizing age appropriate communication.* (Minimal patient history acquired and/or it was not age appropriate.)-1			
8.	Verbally explains procedure to patient by utilizing age appropriate communication.*			
9.	Utilizes age appropriate nonverbal communication strategies. (i.e. eye contact, body language)			
10.	Displays professional patient relations.			
11.	Utilizes proper radiation protection for patient, technologists and self*.			
12.	Performs examination with confidence and skill, in a timely manner.			
13.	Performs examination in a logical sequence.			

	Evaluation Criteria	*Yes*	*No*	*N/A*
14.	Selects appropriate image receptor (IR). (i.e. grid/no-grid)			
15.	Correct image receptor (IR) placement (Bucky/table-top and crosswise/lengthwise)			
16.	Places patient in correct position (upright/supine/lat./decub./comfortable) by providing clear patient instructions.*			
17.	Places part in correct position (flexion/extension/inversion/rotation/oblique).			
18.	Anatomy centered to image receptor (IR).			
19.	Correct tube-film alignment.			
20.	Correct central ray placement.(Clipped anatomy)*(CR incorrect but anatomy visualized)-1			
21.	Angled central ray appropriately.			
22.	Correct SID (source-to-image distance).			
23.	Evidence of proper collimation.* (Minimal collimation visualized.) -1			
24.	Demonstrates proper patient identification & radiographic markers.			
25.	Selects proper technical factors; accurately sets control panel.*			
26.	Provides proper breathing instruction.			
	Repeat*			

Position(s):

Comments:

INSTRUCTOR/TECHNOLOGIST/DATE

STUDENT/DATE

Communication

Goal #1: Graduates will be able to communicate effectively.

Student is COMPETENT IN effective communication with:

1a. Patients (by obtaining an accurate patient history, explaining the examination, and providing clear patient instructions) (4 points possible)

A	B	C	D
Consistently Exceeds the Standard-4 points	Exceeds the Standard-3 points	Meets the Standard-2 points	Fails to Meet the Standard-1 points

1b. Supervisors (Clinical Liaison, Radiologist) Uses appropriate medical terminology and interacts in a professional manner (4 points possible)

A	B	C	D
Consistently Exceeds the Standard-4 points	Exceeds the Standard-3 points	Meets the Standard-2 points	Fails to Meet the Standard-1 points

1c. Other Members of the Health Care Team (technologists, nurses) displays respectful inter-professional communication. (4 points possible)

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard -2 points	Fails to Meet the Standard -1 points

Critical Thinking

Goal #2: Graduates will be able to use critical thinking skills.

2a. Student adapts the procedure according to patient needs with ASSISTANCE. (4 points possible)

A	B		C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points		Meets the Standard -2 points	Fails to Meet the Standard -1 points

2b. Ability to Follow Directions (4 points possible)

Student is able to follow directions and explanations given by instructor, liaison or technologist WITH ASSISTANCE.

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard -2 points	Fails to Meet the Standard -1 points

Technology

Goal #3: Graduates will be able to use technology skills to perform specialized imaging procedures.

3a. Application of Knowledge (4 points possible)

Student demonstrates anatomy knowledge, displays procedural skills and selects proper imaging factors, as instructed during previous didactic experience, as well as appropriate use and care of equipment. Student is OBSERVING AND GAINING BEGINNING KNOWLEDGE.

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard - 2 points	Fails to Meet the Standard -1 points

3b. Standard of Work (4 points possible):

Student is ASSISTING and/or with CLOSE OBSERVATION **performing examinations according to the department standards and protocols**, further DEVELOPING the sequential progression of work flow for the department.

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard - 2 points	Fails to Meet the Standard -1 points

Diverse Population

Goal #4: Graduates will be able to care for patients in a manner that shows respect for cultural differences.

Concern for the Patient

Student is PRACTICING caring for the basic needs of the diverse patient population in a manner that:

4a. Demonstrates respect for each patient's cultural preference. (4 points possible)

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard - 2 points	Fails to Meet the Standard -1 points

4b. Adheres to the professional standards of patient safety (radiation safety, MRI safety, CDC standard precautions, etc.) (4 points possible)

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard - 2 points	Fails to Meet the Standard -1 points

4c. Complies with HIPAA by strictly maintaining the patient's confidentiality. (4 points possible)

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard - 2 points	Fails to Meet the Standard -1 points

4d. Respects the patient by protecting their privacy and modesty. (4 points possible)

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard - 2 points	Fails to Meet the Standard -1 points

Professionalism:

Goal #5: Graduates will be able to exhibit professionalism.

5a. Appearance: (4 points possible)
Student follows proper dress codes as stated in the Dress Code Policy in the RT handbook.
Rationale should be included in this section for any question rated other than "Above Average".

A	B	C	D
Consistently Exceeds the Standard -4 points (No infractions)	Exceeds the Standard -3 points (1-2 infractions)	Meets the Standard - 2 points (3-4 infractions)	Fails to Meet the Standard -1 points (5 or more infractions)

5b. Punctuality: (4 points possible)
Student is on time for clinical hours, except in emergencies, as approved by the Clinical Liaison and Externship instructor.
Rationale should be included in this section for any question rated other than "Above Average".

A	B	C	D
Consistently Exceeds the Standard -4 points (No infractions)	Exceeds the Standard -3 points (1-2 infractions)	Meets the Standard - 2 points (3-4 infractions)	Fails to Meet the Standard -1 points (5 or more infractions)

5c. Professional Behavior: (4 points possible)
The student is able to **PERFORM** the examination in a professional manor, demonstrating a standard of behavior that reflects respect for others, ethical conduct, and responsibility for actions.

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard - 2 points	Fails to Meet the Standard -1 points

5d. Attitude Toward Criticism (4 points possible)
Student accepts criticism from instructor, liaison, and technologists **CAREFULLY ASSESSES SUGGESTIONS AND ATTEMPTS TO CHANGE BEHAVIOR APPROPRIATELY.**

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard - 3 points	Fails to Meet the Standard - 1 point

5e. Initiative (4 points possible)
Student displays a willingness to **ASSIST** in **AND PERFOM PROFICIENCED** radiographic examinations and associated duties **WITHOUT BEING DIRECTED**.

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard - 2 points	Fails to Meet the Standard -1 point

5f. Teamwork (4 Points possible)
Student is able to work as a part of a team, actively **ASSISTING** in exams/procedures as well as other associated tasks.

A	B	C	D
Consistently Exceeds the Standard -4 points	Exceeds the Standard -3 points	Meets the Standard - 2 points	Fails to Meet the Standard -1 point