



Radiologic Technology Program

2024



Clinical Handbook

Revised: January 2024

Dear Student Radiographer,

This clinical manual was developed to assist you as you progress through the Radiologic Technology Program at Hostos Community College. It contains the information you will need regarding the clinical portion of the program. *It is your responsibility to carefully review this information and abide by all the rules and regulations set forth in this manual.*

The regulations in this handbook may be changed by way of department notice. Should you have any questions, contact the Clinical Coordinator for clarification. We wish you success as you begin your clinical education in radiologic technology.

Prof. Manuel Livingston MSEd RT, Program Director

Mr. Leonard Cardinale MS RT, Clinical Coordinator

Class of 2025

CLINICAL EDUCATION MANUAL

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CLINICAL EDUCATION MANUAL

1. INTRODUCTION

Students in the Radiologic Technology Program have the opportunity to participate in a planned system of clinical education combining activities in major medical centers and an on-site energized laboratory.

Students are assigned to two (2) clinical affiliates during their clinical education.

- First year students begin their clinical education during the second semester (spring), and attend clinical two days a week. During the summer semester, students will continue at the same hospital five days a week.
- Each student will be assigned to a second hospital as they begin their senior year. Clinical will be three days a week during the fall and spring semesters and two to five days a week during the summer semester.

Students are closely monitored at the clinical affiliates by the college's designated clinical supervisor for each hospital. The clinical supervisor, who is a member of the hospital staff, is responsible for the general supervision of the students. The clinical supervisor conducts the hospital orientation, monitors attendance, determines room assignments and works closely with the clinical coordinator and clinical instructor. The clinical instructor, who is a college faculty member, is assigned to visit the hospital each week. The clinical coordinator also makes regularly scheduled visits to each clinical education center.

2. PHILOSOPHY OF CLINICAL EDUCATION

The Radiologic Technology Program faculty believes that every student, if provided with an optimum educational experience and opportunities, will be able to perform all routine radiographic procedures. Therefore, the program provides demonstration, supervision, and evaluation in the clinical setting to enable the student to effectively:

- A. Apply knowledge of the principles of radiation protection for the patient, self and others.
- B. Apply knowledge of anatomy, positioning, and radiographic technique, displayed on a digital medium to accurately evaluate radiographic images.
- C. Determine exposure factors to achieve optimum radiographic quality with a minimum radiation exposure to the patient.
- D. Examine radiographic images for the purpose of evaluating techniques, positions, and other pertinent technical and pathological details.

- E. Provide patient care.
- F. Establish interpersonal communication with the patient and other members of the health care team.

3. CLINICAL OBJECTIVES

The primary objective of clinical education is to correlate the students' clinical experience with the didactic portion of the program. This correlation is based upon a foundation of fundamental principles and procedures that develop into superior performance and knowledge as proficient technologists. The evaluation system is specifically designed to include assessment of the affective, cognitive and psychomotor domains. The Radiologic Technology Program provides a clinical environment structured to develop a competent, entry-level professional who:

- A. Integrates cognitive and psychomotor aspects of the curriculum to assure a meaningful clinical practicum.
- B. Performs basic radiographic examinations under direct and indirect supervision of a licensed radiologic technologist.
- C. Performs examinations to demonstrate clinical competency for each radiographic procedure.
- D. Adapts and maintains professional standards and ethics.
- E. Recognizes the role as a student technologist as an important part of an effective health care team.
- F. Recalls knowledge based on the applied principles of radiologic technology.
- G. Initiates radiographic procedures with an integrated knowledge of human structure, function and radiographic positions.
- H. Indicates proper use of image receptors, markers, and digital imaging and processing.
- I. Recalls knowledge of radiographic pathology in applying the appropriate principles of radiographic exposure.
- J. Applies knowledge of radiation physics and instrumentation to the operation of radiographic equipment.
- K. Utilizes knowledge of radiation protection to minimize radiation exposure to patients, personnel and the general public.

- L. Utilizes correct patient care procedures in routine and emergency patient care.
- M. Communicates effectively with the patient in a professional and caring manner.

4. CLINICAL EDUCATION SEQUENCE

4A. Junior Year Course Sequence

Fall Semester

Students are not assigned to the hospital during the first semester. They begin their clinical education at the college, in the laboratory component of the following courses:

- XRA 111 Radiologic Science I & Lab
- XRA 110 Radiography I & Lab

Process Improvement Maps, for the Table Bucky, Wall Bucky and the Table Top (non-grid) processes, coupled with Performance Improvement exercises. This will be accomplished through the use of visualization and psychomotor activity and will be implemented to enhance the student's ability to acquire and execute the skills necessary for a successful entrée into the clinical experience of the student radiographer. (Exhibits A, B, C of the Clinical Handbook)

Spring Semester

Students begin their hospital experience with a two days per week clinical rotation while continuing advanced laboratory practice in the following courses:

- XRA 121 Radiologic Science 2 & Lab
- XRA 120 Radiography 2 & Lab

Summer Semester

During the summer semester, students will continue at the same hospital for 5 days a week. During this time, students will ONLY receive three (3) personal days during the summer semester. All days used by the student must be communicated to the clinical Education center Supervisors as well as the Clinical Coordinator.

4B. Senior Year Course Sequence

Fall and Spring Semesters

Students are assigned to a different hospital for their senior year. The fall and spring clinical courses are three days a week. Students attend classes two days a week at the college.

Summer Semester

Students are assigned to work at one of the program's clinical education centers full-time Monday through Friday from 8:00 a.m. to 4:00 p.m. during the summer sessions. The exact dates of the summer session change each semester; however, clinical internships usually begin the first week of June and end in August.

5. CLINICAL ROTATIONS

5A. Junior Year Rotation

Spring: Clinical I February - May 2 days a week Summer: Clinical II June - August 5 days a week

5B. Senior Year Rotation

Fall: Clinical III September December 3 days a week
Spring: Clinical IV January – May 3 days a week
Summer Clinical V June-August 2-5 days a week

6. CLINICAL EDUCATION RULES AND REGULATIONS

The clinical education is provided in the Radiologic Technology curriculum to enable the student to correlate and practice various radiographic skills and to meet the legal requirements for licensure and registry eligibility. Students are expected to fulfill their clinical education under appropriate supervision of a clinical supervisor and clinical instructor. The college faculty visits the hospitals to observe and evaluate the students' clinical performance.

The following is a list of the rules and regulations concerning the clinical practicum that all students enrolled in the Radiologic Technology Program are required to follow.

6A. General Clinical Practicum Policies

- 1) Students must successfully complete the following prerequisites before they advance to XRA 129 Clinical Radiography I.
 - Clinical Education Center Requirements
 - Physical exam (student's responsibility)
 - I.D. badges
 - Immunization records (student's responsibility)
 - Pre-Clinical Radiation Protection requirements
 - Background check (Castle Branch) (student's responsibility)
 - Drug background (Castle Branch) (student's responsibility)
- 2) Students must complete their clinical education at the affiliation designated by the college. New York State Law mandates clinical practicum.
- 3) Clinical practicum is an eight-hour a day shift with one hour for lunch. Hospital hours are 8:00 a.m. to 4:00 p.m. It is the student's responsibility to schedule outside commitments to conform to this requirement.
- 4) Students must always work under direct and indirect supervision at the clinical education center as determined by the students' clinical competency.
- 5) At no time will anyone be radiographed at the clinical education center without a specific request, in writing, by a physician or their designee. Students may be subjected to dismissal from the program.
- 6) Student are subject to all the rules and regulations of the clinical education centers. This includes patient privacy, patient safety, and all emergency plans instilled at the institution. The clinical affiliate has the right to request the removal of any student who demonstrates any breach of their rules or displays unethical behavior.
- 7) Attendance records are kept by Trajecys and sign-in sheets at the clinical education centers. Students must sign in electronically using Trajecsys at the designated computer station when they arrive and sign out when they leave. No clinical credit will be given if the student's signature is not on record or if the attendance records are incomplete. Please see appendix B2 for instructions.
- 8) Students must be attired in proper, clean uniform at all times when at the clinical affiliates. Students will maintain a neat, presentable appearance and comply with the hospital's policies concerning personal hygiene and grooming, which includes but not limited to:
 - Proper Hostos uniform
 - Proper white clean shoes and socks (no clogs)
 - Excessive or oversized jewelry is not permitted while on duty.
 - Hair and nails upkeep must infection control policies
 - Lab Coat
 - Dosimeter

- 9) <u>In accordance with New York State law</u>, all students are required to wear badges specifying "Student Radiologic Technologist."
- 10) Students must maintain, and have on their person and/or readily available, their:
 - Pocket Guide to Radiography
 - Case log record
 - Ink pen
 - Lead markers R/L
 - Dosimeter
- 11) Student will be issued two dosimeters: one to be worn only in the college laboratory and the other at their assigned clinical education center. If the dosimeter is lost or misplaced, the student must contact a faculty member of the Radiologic Technology Program at Hostos Community College immediately. *Students are NOT permitted* to be at the clinical education center without a dosimeter. In addition, students are not allowed to accept a replacement dosimeter issued by the clinical education center. If available, a temporary dosimeter will be issued by the Radiologic Technology Program while a new one is ordered from the dosimeter vendor. Please handle dosimeters with care. It records your exposure to ionizing radiation ad improper care may result in false positive readings. Time missed because of a lost or missing dosimeter must be made up and points will be deducted from the final grade.
- 12) It is the student's responsibility to initial the monthly radiation exposure reports in compliance with New York State Law.
- 13) The Program Director reserves the right to change clinical education assignment rotations at any time during the program.
- 14) Students' clinical evaluation forms are completed each semester.
- 15) A physical examination is required before each clinical rotation. Students are <u>required</u> to have the Hepatitis B vaccine that may be available at our clinical affiliates, or at the College (plus any other vaccines required by the clinical affiliate). Offsite free vaccinations locations are available upon request.
- 16) Students must adhere to the same health and safety standards as new employees of the hospital education centers. *The physical examination may include drug screening.*
- 17) It is the student's responsibility to complete and submit a written statement and/or an incident report to the clinical coordinator <u>within 24 hours</u> if an accident occurs at the clinical education center.
- 18) All examinations performed on pediatric patients must adhere to the Pediatric Policy. (See 11F)

- 19) Reasons for student suspension or dismissal from the program include, but are not limited to the following:
 - Falsifying attendance records.
 - Signing in or out for another student.
 - Leaving the assigned area without permission.
 - Negligence which causes injury to a patient.
 - Performing examinations with inappropriate supervision.
 - As identified by the ARRT code of ethics, any illegal, unethical or immoral act or behavior.
 - Violating hospital policies
 - Imaging incorrect patient or body part
 - Performing exam without proper requisition
 - Undocumented excessive lanteness/absences
- 20) The use of cellular phones/cameras and other electronic personal devices within patient are in clinical facilities are restricted. Cell phones must be kept on silent mode at all times while in clinic and may be used for personal business only on breaks and during meal periods. This includes sending and receiving personal text messages. Urgent calls and text messaging may only be done in non-work and non-patient care areas of the hospital.

6B. Clinical Attendance Policies

** Students MUST login and log out of their clinical site using Trajecys**

6B.1. Clinical Lateness

Chronic lateness may result in points being deducted when assigning a clinical grade.

Any type of lateness is unacceptable. Habitual lateness will result in a reprimand (verbal, written warning) and placed on clinical probation with monitoring and possible suspension. Students who report any time after 8:00 a.m. are considered late. Three excessive lateness will be counted as one clinical absence and subject to the clinical absence policy. You will be marked late if you login into Trajecys outside the required departmental zone.

- Arrival 15 minutes or later will be considered an "excessive lateness" and may result in an unexcused absence and student may be sent home.
- ***Second lateness will result in 5 points deduction from final grade.***

• Each additional lateness will result in an additional 5 points deduction from the final grade.

6B.2. Clinical Absences

All absences in excess of the allowable absences for that semester will result in points being deducted when assigning a clinical grade.

See below for infractions of exceeding the allowable absences:

Class	Allowable Absences	Point Deductions
Spring - XRA 129 Clinical Radiography I	2 days a semester	5 points for each day over 2 days
Summer - XRA 139 Clinical Radiography II	3 days a semester	5 points for each day over 3 days
Fall - XRA 219 Clinical Radiography III	3 days a semester	5 points for each day over 3 days
Spring - XRA 229 Clinical Radiography IV	3 days a semester	5 points for each day over 3 days
Summer - XRA 239 Clinical Radiography V	1 day a semester	5 points for each day over 1 days

PLEASE NOTE:

Extended absences due to extenuating circumstances will be considered on an individual basis if proper documentation is provided.

6B.3. Required Notification

If a student is going to be absent from clinical practice, or excessively late, it is the student's responsibility to telephone the appropriate individual and properly identify yourself and note the name of the person you spoke to (the Clinical Supervisor, Clinical Coordinator and/or the Program Director) at the hospital <u>at least one hour before</u> the start of their shift. Failure to adhere to this policy will result in disciplinary action. Failure to comply will result in points being deducted.

PLEASE NOTE:

Notifying a fellow student is not acceptable. Students must notify the Clinical Coordinator, Instructor, and Supervisor or his/her designee (by e-mail) early that day. You can also **leave a voice message for the Clinical Coordinator** at 718 664-2626.

6C. Clinical Probation and Dismissal Policies

Clinical Probation is the official notification to the student of unacceptable behavior, excessive absence/lateness issues, or unsatisfactory clinical performance. Clinical probation status is conferred at the discretion of the Program Coordinator and the Clinical Coordinator for any unsafe or unprofessional behavior.

The following include but are not limited to the behaviors that may lead to clinical probation:

- Causing harm to a patient
- Unsafe practice in the clinical area
- Unexcused clinical absences beyond the permissible allotment
- Excessive lateness/absences
- Failure to notify faculty, supervisors of lateness or absences at their designated clinical education center
- Failure to follow direct and indirect supervision guidelines
- Non-adherence to HCC radiologic technology student uniform policy
- Unprofessional conduct
- Chronic Lateness/absence
- Being under the influence of alcohol or illicit drugs that will affect safety.

Clinical Probation Procedure:

- A discussion begins with the Program Coordinator and Clinical Coordinator. A contract describing the terms of the probation will be given to the student and a copy placed in the permanent student file.
- Clinical probation may result in a reduction of the clinical grade or, if the
 circumstances warrant, the student may be removed from the clinical education
 center or the possibility of not progressing in their program track. The specific
 terms of the probation will be established by the Program Director in consultation
 with the Clinical Coordinator. This will result in an individualized contract/plan
 specific to the behaviors that need modification.

Resolution of Probation

Disciplinary probation status will be removed when the student meets the
conditions set forth in the contract from the Program Coordinator outlining the
conditions of his/her probation and if the student has no other incidents of
unacceptable behavior or unsatisfactory clinical performance.

Clinical Probation Limitations

 When a student demonstrates a consistent lack of performance in the clinical requirements of the program, and has performed below average or has not satisfactorily completed the terms of clinical probation, the student will be terminated from the program.

Dismissal Policy

 Any insubordinate, unsafe, unprofessional, or unethical behavior may result in the clinical education center requesting the removal of a student. Hostos Radiologic Technology Program is under no obligation to place the student in another clinical education center.

6D. Substance Abuse Policy

The City University of New York ("CUNY") is an institution committed in promoting the physical, intellectual, and social development of all individuals. As such, CUNY seeks to prevent the abuse of drugs and alcohol, which can adversely impact performance and threaten the health and safety of students, employees, their families, and the general public. CUNY complies with all federal, state, and local laws concerning the unlawful possession, use, and distribution of drugs and alcohol. This policy applies to all CUNY students, employees, and visitors when they are on CUNY property, including CUNY residence halls, as well as when they are engaged in any CUNY-sponsored activities off campus.

In order to be admitted/readmitted to a clinical education center, the student must:

- Meet with a college counselor to determine their course of treatment
- Complete a prescribed drug/alcohol treatment program
- Submit documentation confirming completion of treatment
- Agree to random drug testing for the remainder of the program at the student's own expense

Continued abuse and/or resistance to rehabilitation will lead to termination from the program. For more information, please check your clinical site substance abuse policy and visit:

https://wvvw.hostos.cuny.edu/Hostos/media/Office-of-Human-Resources/DrugandAlcoholPolicy.pdf

6E. Communicable Disease Policy

The purpose of this policy is to assure the health and safety of students, patients and staff. If a student contracts a communicable disease, or has reason to believe that he/she has been exposed to a communicable disease, the following steps should be taken:

- 1. Report it immediately to the Program Director, who will refer the student to the college health service facility where he will be seen by the college nurse.
- 2. The Program Director will notify the affiliate clinical supervisor and if exposure was due to a clinically related incident the supervisor will be required to submit a written report of the incident.
- 3. The student may be referred to the employee health service at the clinical affiliate.
- 4. When all reports are received by the Program Director, a faculty committee will be formed to assess the situation and determine when the student may continue his/her clinical education.

6F. International Student

Any international student may apply for admission to a matriculated program at CUNY regardless of immigration status.

However, the radiology program has five mandatory clinical semesters of hospital internships. The hospitals require that all medical staff and employees be able to prove their *legal presence* and their *legal eligibility to work* in this country. Legal presence means that a person is either a U.S. citizen or is legally authorized to be/work in the United States. Legal presence can be proved using a U.S. birth certificate, U.S. passport, Certificate of Citizenship or Naturalization, Resident Alien Card or a valid foreign passport with a visa, I-94 or an I-94W with a participating country. The hospitals reserve the right to deny access to students who are unable to prove their legal presence in this country.

Furthermore, the hospital internship is an essential, legal requirement as specified in the Joint Review Committee on Education in Radiologic Technology *Standards for an Accredited Educational Program in Radiologic Sciences*.

Consequently, the radiology program only accepts students into the clinical phase of the program if they can prove their legal presence and their legal eligibility to work in the United States. Students are encouraged to reapply for admission into the program after they have established their legal presence in the Unites States.

6G. College Closings/Emergency Preparedness

All students must register for the CUNY ALERT SYSTEM. https://www.cuny.edu/about/university-resources/emergency-preparedness/

Students will be alerted with conditions on severe weather, natural disasters or other emergencies. During severe weather or emergencies, students will not attend clinicals. You may obtain further information by calling the College's general number 718-518-4444 for a recorded message or go to the Programs Community Site. Information will also be broadcast on the following radio stations:

WADO	1280 AM	
WBLS	107.5 FM	
WCBS	880 AM	101.1 FM
WFAS	1230 AM	104 FM
WINS	1010 AM	
WLIB	1190 AM	
WFAS WINS	1230 AM 1010 AM	

7. ORGANIZATIONS

Students may wish to contact the following organizations for additional information and materials:

Accreditation: Joint Review Committee on Education in Radiologic Technology

20 North Wacker Drive, Suite 900

Chicago, IL 60606-2901

(312) 704-5300 www.jrcert.org

Curriculum: American Society of Radiologic Technologists

15000 Central Avenue, N.E. Albuquerque, NM 87123-3917 (505) 298-4500

www.asrt.org

Certification: American Registry of Radiologic Technologists

1255 Northland Drive St. Paul, MN 55120-1155 (651) 687-0048

www.arrt.org

A copy of the JRCERT standards of practice is available at <u>www.jrcert.org</u> and a reserved copy is kept in the program director's office.

8. FACULTY

Charles I. Drago D.Ed., R.T. (R)(CT) Professor, Allied Health Chairperson

Manuel Livingston, M.S.Ed, R.T. (R)(CT) Assistant Professor, Program Director Leonard Cardinale, M.S., R.T.(R)(CT), L.S.S.B.B., Clinical Coordinator

Jarek Stelmark, MBA, R.T.(R)(CV)(C)(MR)(QM)(BD)(VI) Associate Professor

Rayola Chelladurai, MA, R.T. (R) (BD) Assistant Professor & Radiation Safety Officer

Sanjay Arya, MS, R.T.(R)(MR)(MRSO) Assistant Professor

Bill Hall, Pd.D., R.T. (R)(MR) Laboratory Instructor

Frances Dietz, M.P.H., R.T. (R)(M) (CT)(QA)(CRA) Adjunct Asst. Professor

Iris Cortes, M.A., R.T. (R)(CT) Adjunct Lecturer

Randy Rampersaud M.S. (R)(CT(MR) Adjunct Lecturer

Eric Gallo BS, R.T. (R)(CT)(MR) Adjunct Lecturer

Sesar Alicea, B.S., R.T. (R) Adjunct Lecturer

Federico Vetralla B.S., R.T. (R) (CT) Adjunct Lecturer

Stephanie Ronca, B.S., R.T. (R) Adjunct Lecturer

Carolyn McPherson, B.S., R.T. (R)(M) Adjunct Lecturer

Beatriz Reilly, B.S., R.T (R) Adjunct Lecturer

Elizabeth Vargas Administrative Assistant

9. CLINICAL AFFILIATIONS

The Radiologic Technology Program at Hostos Community College is affiliated with some of the finest Medical Centers in the New York metropolitan area. The program is presently affiliated with the following institutions:

9A. Montefiore Medical Center, Weiler Division

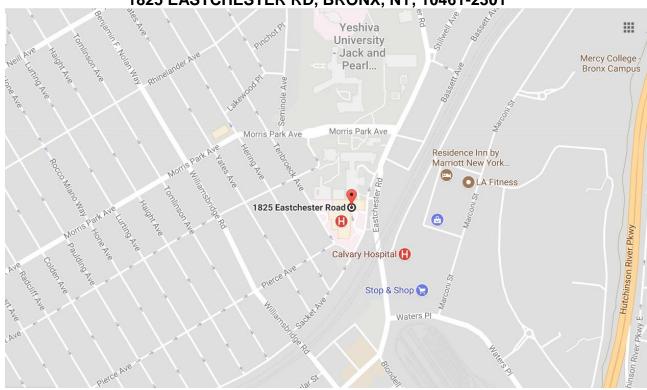
1825 Eastchester Road 3rd Floor Bronx, New York 10461

Telephone: (718) 904-2768 or 2550 Clinical Supervisor: Anto Jankovic, R.T. Radiology Administrator: Guy Fata, R.T.

Travel Directions: #4 subway to Fordham Road Transfer to #12 bus to Eastchester Road Transfer to #31 bus to hospital #5 subway to 180st St. Transfer to #21 bus

#6 subway to Westchester Sq. Transfer to #31 bus to hospital

1825 EASTCHESTER RD, BRONX, NY, 10461-2301



9B. Saint Barnabas Hospital

4422 Third Avenue (183rd Street) 4th floor, main building Bronx, New York 10457

Telephone: (718) 960-9000 x-6162 or x-4203

Clinical Supervisor: Armando Feliciano, R.T. Radiology Administrator: Ernesto Cerdena, R.T.

Travel Directions: #2 or #5 subway to 149th St. and 3rd Ave.

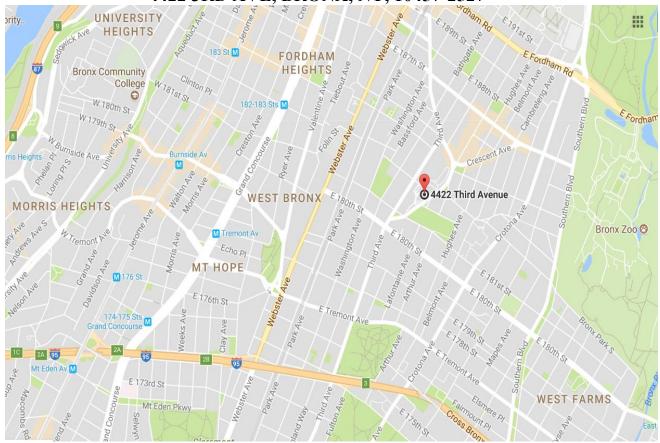
Transfer to #15 or #55 bus

#4 subway to 180th Street Transfer to #36 bus

#36 bus to 180th Street

Transfer to #15 or 55 bus to 183rd St.

4422 3RD AVE, BRONX, NY, 10457-2527



9C. BronxCare Health System

1650 Grand Concourse Main floor Bronx, New York 10457

Telephone: (718) 518-2726 or 5574 Clinical Supervisor: Ms. Y. Rodriguez, R.T. Radiology Administrator: Ms. S. Acevedo, R.T.

Travel Directions: #4 subway to Mount Eden Ave.

Walk three blocks east to Grand Concourse

D subway to 174/175 St. Walk three blocks south

1650 GRAND CONCOURSE, BRONX, NY, 10457-7606



9D. Lincoln Medical and Mental Health Center

234 East 149th Street 2nd floor Bronx, New York 10451

Telephone: (718) 579-5744 Clinical Supervisor: Mayra Soler, R.T. Radiographer Administrator: Amrit Pandya, R.T.

Travel Directions: #2, 4 or 5 subway to 149th St. & Grand Concourse

walk two blocks east.

234 E 149TH ST, BRONX, NY, 10451-5504 (2) Harlem River Dr Cardinal Hayes High School Melrose Playground 745th St Bridge Governor Smith Playground E 151st St 149 St-Grand Concourse Hostos Community College M E 150th St Cookie's 234 East 149th Street O Department Stores Westchester Ave Nadison Ave Bridge Riverton Square

9E. **Lenox Hill Hospital - Northwell Health**

100 E. 77th Street 3rd Floor New York, New York 10021

(212) 434-2952 Telephone:

Clinical Supervisor: Mr. E. Gallo, B.S., (R)(CT)(MR)

Radiology Administrator: Mr. F. DeSarno, R.T.

#6 subway to 77th Street Travel directions:

100 E 77TH ST, NEW YORK, NY, 10021-1882



9F. Memorial Sloan-Kettering Cancer Center

1275 York Avenue 2nd floor New York, New York 10065

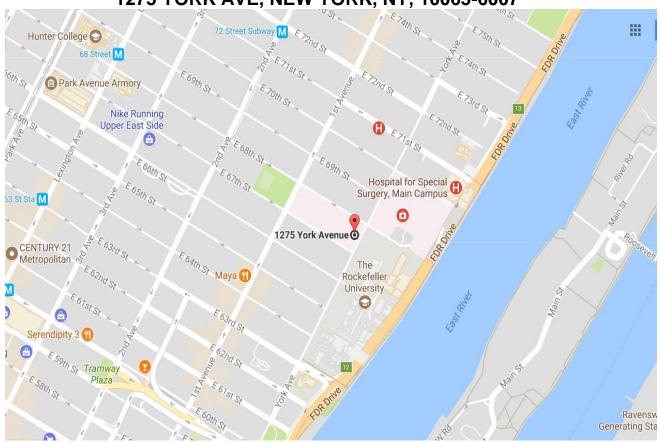
Telephone: (212) 639-7298 Clinical Supervisor: S. Del Rio, R.T. Radiology Administrator: Pat Soto, R.T.

Travel Directions #6 subway to 68th St.

Walk three blocks east to First Avenue

#M15 bus to 68th St. and First Avenue #M57 bus to 67th St. and York Avenue

1275 YORK AVE, NEW YORK, NY, 10065-6007



9G. **Veterans Affair Medical Center**

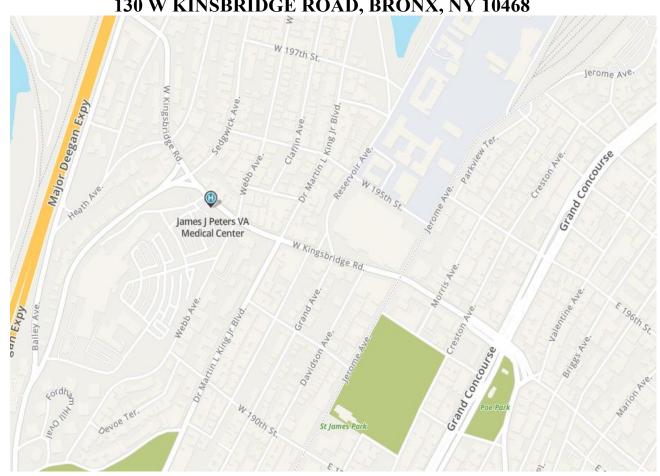
130 W Kingsbridge Rd. Bronx, New York 10468

Telephone: (718) 584-9000 Ext. 65 Clinical Supervisor: Carla Ashman, R.T. Radiology Administrator: David Kimio, R.T.

Travel Directions #BX32, BX9 and BXM3 buses

> Hudson train Subway 1, 4 or B

130 W KINSBRIDGE ROAD, BRONX, NY 10468



10. CLINICAL RADIOGRAPHY COURSES

XRA 129	Clinical Radiography I	2.0 credits	16 hours/week
XRA 139	Clinical Radiography II	3.0 credits	40 hours/week
XRA 219	Clinical Radiography III	2.5 credits	24 hours/week
XRA 229	Clinical Radiography IV	2.5 credits	24 hours/week
XRA 239	Clinical Radiography V	2.5 credits	16-40 hours/week

11. CLINICAL SUPERVISION

Students are required to complete the five (5) clinical courses listed above. As the student begins the sequence with Clinical Radiography I, the student will observe radiographers performing a wide variety of procedures. After 3 weeks of observing, the student will begin to assist the radiographers with these examinations.

As the student gains more confidence and experience, the student will advance to a mode of direct supervision. The assigned clinical instructor will perform equipment manipulation evaluation, followed by performance of assigned competencies with appointed staff members.

After testing competent, the student will advance to a mode of indirect supervision, where the supervision is provided by a qualified radiographer who is "immediately available" to assist. Immediately available means the physical presence of a licensed radiographer adjacent to the room or location where a radiographic procedure is being performed.

Direct supervision of junior students is always required in the following situations:

- 1. Critical care patients
- 2. Patients accompanied by an attendant or nurse
- 3. Acute care patients, i.e.

Multiple lines

Oxygen

Drainage tubing

4. Special situations, i.e.

Pediatrics

Pregnant patients

Operating room examinations

Mobile and bedside examinations

The following terms are defined to clarify student capabilities for each clinical course:

11A. Restricted Areas

These are radiographic areas and/or examinations that the student has not covered in his or her didactic courses. Students cannot be assigned to these areas until they have completed the appropriate didactic training.

11B. Observation

The student may not act as a radiographic assistant. They cannot perform the examination or make any radiographic exposures.

11C. Direct Supervision (Level 1)

Direct supervision is defined as student supervision by a qualified staff radiographer who:

- reviews the procedure in relation to the student's level of competency
- evaluates the condition of the patient in relation to the student's knowledge
- determines the capability of the student to assist in performing the examination
- is physically present during the conduct of the procedure
- reviews and approves the procedure and/or image, and
- submits all digital examinations into PACS

All repeat images must be performed according to the Repeat Image Policy. (Must be done by the technologist).

Students must be directly supervised until competency is achieved.

11D. Indirect Supervision (Level 2)

Indirect supervision is defined as student supervision by a licensed staff radiographer who:

- reviews the procedure in relation to the student's level of competency
- evaluates the condition of the patient in relation to the student's knowledge
- determines the capability of the student to perform the examination with reasonable success
- is immediately available to assist students regardless of the level of student achievement
- reviews and approves the procedure and/or image, and
- submits all digital examinations into PACS

"Immediately available" is interpreted as the physical presence of a licensed staff radiographer adjacent to the room or immediate vicinity where a radiographic procedure is being performed.

All repeat images must be performed according to the Repeat Image Policy. (Must be done by the technologist).

Students must be indirectly supervised even after competency is achieved.

11E. Repeat Image Policy

The presence of a qualified radiographer during the repeat of an unsatisfactory image assures patient safety and proper educational practices. A qualified staff radiographer must be physically present during the conduct of a repeat image and must approve the student's procedure prior to re-exposure.

When the student is working with indirect supervision, all repeat images must be performed under the <u>direct supervision of a licensed staff radiographer</u>.

When the student is working with direct supervision, all repeat images must be performed by a <u>licensed staff radiographer</u>.

11F. Pediatric Policy

All radiographic examinations of children under the age of 6 must be done under the <u>direct supervision of a qualified staff radiographer</u> regardless of the student's competency level.

11G. PACS Submission Policy

The verification and submission of all digital examinations into PACS is the <u>legal</u> responsibility of a qualified staff radiographer regardless of the student's level of achievement. A student is to verify or finalize an exam case.

11H. Release of Patients Policy

Upon completion of their exam(s), all patients will be allowed to leave the department only by a licensed staff radiographer irrespective of the supervision level of the student(s).

12. CLINICAL SUPERVISION REQUIREMENTS BY SEMESTER

The following synopsis should be used to determine the students' capabilities for each clinical course: (See competency categories, pg. 30)

Clinical Radiography I - SPRING

The first three weeks of this clinical course is primarily *observation only*. After this initial period the following applies:

Restricted Areas - Operating Room, C-Arm,

Special Procedures, CT, MRI, Bone Density, Mammography

Observation - category E – Contrast Media Studies

category F – Skull, Mobile Radiography

Direct Supervision - category A – Upper Extremities

category C Spine/Palvis

category C – Spine/Pelvis

category D – Routine Abdomen, Routine Chest

or AP Chest non-bucky (wheelchair/stretcher)

category G – Pediatric (Age 6 or younger)

Geriatric (Age 65, or cognitively

impair)

Indirect Supervision - **After Testing Competent**:

category D – Routine Abdomen, Routine Chest

or AP Chest non-bucky (wheelchair/stretcher)

Clinical Radiography II – SUMMER

Restricted Areas - O.R., C-Arm, Special Procedures, CT., MRI,

Bone Density, Mammography

Observation - category E – Contrast Media Studies

category F – Skull, Mobile Radiography

Direct Supervision - category A – Upper Extremities

category B – Lower Extremities category C – Spine/Pelvis

category D – Chest/ Abdomen

category E – Contrast Media Studies

category F – Mobile Radiography

category G – Pediatric (Age 6 or younger) Geriatric (Age 65, or cognitively

impair)

Indirect Supervision - **After Testing Competent**:

category A – Upper Extremities category B – Lower Extremities category C – Spine/Pelvis

category D – Routine Abdomen, Routine Chest

or AP Chest non-bucky (wheelchair/stretcher)

Clinical Radiography III – FALL

Restricted Areas - Special Procedures, CT, MRI, Bone Density,

Mammography

Observation - O.R., C-Arm

Direct Supervision - category E – Contrast Media Studies, C-Arm, O.R.

category F – Skull, Mobile Radiography category G – Pediatric (Age 6 or younger)

Geriatric (Age 65, or cognitively

impair)

Indirect Supervision - **After Testing Competent**:

category A – Upper Extremities category B – Lower Extremities category C – Spine/Pelvis

category D – Routine Abdomen, Routine Chest

or AP Chest non-bucky (wheelchair/stretcher)

Clinical Radiography IV – SPRING

Restricted Areas - None

Observation only- Special Procedures, CT., MRI, Bone Density, and

mammography

Direct Supervision - category E –Contrast Media Studies, C-Arm, O.R.

category F –Skull, Mobile Radiography category G – Pediatric (Age 6 or younger)

Geriatric (Age 65, or cognitively

impair)

Indirect Supervision -

After Testing Competent:

category A – Upper Extremities category B – Lower Extremities category C – Spine/Pelvis

category D - Routine Abdomen, Routine Chest

or AP Chest non-bucky (wheelchair/stretcher)

Skull (after completing lab competency)

Clinical Radiography V – SUMMER

Restricted Areas - None

Observation only Special Procedures, CT, MRI, Bone Density, and

mammography

Direct Supervision - category E – Contrast Media Studies, C-Arm, O.R.

category F – Skull, Mobile Radiography category G – Pediatric (Age 6 or younger)

Geriatric (Age 65, or cognitively

impair)

Indirect Supervision - **After Testing Competent**:

category A – Upper Extremities category B – Lower Extremities

category C – Spine/Pelvis

category D – Routine Abdomen, Routine Chest

or AP Chest non-bucky (wheelchair/stretcher)

Skull (after completing lab competency)

13. CLINICAL COURSE OUTLINES

Please read the objectives for each course and the categories for direct and indirect supervision. These categories indicate the examinations you may perform each semester and the level of supervision required. It is your responsibility to know, and adhere to, this information.

If you are asked to perform an examination that has not been covered in class, you are to indicate this to the technologist. You are not permitted to perform any examination until the content material has been taught at the college. If a problem arises, speak to your clinical supervisor or clinical instructor immediately.

14. CLINICAL GRADES

The first week of each semester, the Clinical Coordinator will review the course syllabi with the class.

Carefully review the grading criteria for each clinical course.

At the end of each semester, the clinical grades are computed by the Clinical Coordinator using the appropriate student evaluation forms. (See: Clinical Evaluation Forms, Appendix C). Grades are determined by evaluating the following categories:

- 1. Professionalism
- 2. Following Instructions
- 3. Communication Skills
- 4. Positioning Skills
- 5. Computing Technique
- 6. Radiation Protection
- 7. Knowledge of Equipment
- 8. Patient Care
- 9. Image Analysis and Clinical Assignment
- 10. Punctuality
- 11. Attendance
- 12. Completion of Clinical Competencies
- 13. Clinical Supervisor Overall Impression
- 14. Clinical Instructor Overall Impression
- 15. Clinical Coordinator Overall Impression

The clinical supervisor and clinical instructor at each affiliate complete a clinical evaluation form for each student. The clinical coordinator will complete his own evaluation form and will combine the information from these evaluation forms with the attendance records and performance in image analysis class to assign a clinical grade. A clinical grade is given for each semester. Clinical grading criteria are contained within each of the clinical course outlines. Students will be given the opportunity to review their evaluations. Failure to complete the assigned clinical competencies for the semester may result in a percentage grade reduction which will be determined based on the number of competencies required for the semester.

15. CLINICAL COMPETENCY PROGRAM

The Clinical Competency Program is designed to allow students to apply theoretical principles of radiography in practical settings.

(See: Clinical Competency, Appendix D)

These practical experiences take place with varying degrees of supervision. The degree of supervision is determined by an ongoing system of clinical assessments. The goal of the Clinical Competency Program is to assist student radiographers in attaining competency -- a state whereby students combine and apply knowledge and clinical skills without error and without direct supervision.

The Clinical Competency Program is based on a progression of clinical evaluations designed and dictated by ARRT to assure that graduates meet the clinical education objectives of the program.

15A. Competency Examinations & Categories

There are mandatory hospital-based competencies that must be completed during the five clinical courses. The Program's certifying agency, The American Registry of Radiologic Technologists (ARRT) mandates these competencies must be completed before a student may challenge the national certification examination.

Students are not permitted to do any of the mandated clinical competency examinations, until they complete the *pre-requisite*: **Equipment Manipulation Competency**. In addition, students must complete the *requisite* competency: **Basic Medical Techniques**, before the completion of Clinical Radiography II.

Competency Categories

Category A	Category B	Category C
Upper Extremities	Lower Extremities	Spine/Pelvis
1. Finger/Thumb	1. Foot	1. Cervical Spine (non-trauma)
2. Hand	2. Ankle	2. Thoracic Spine
3. Wrist	3. Knee	3. Lumbar Spine
4. Forearm	4. Tibia/Fibula	4. Pelvis
5. Elbow	5. Femur	5. Hip
6. Humerus	6. Lower Extremity (trauma)	
7. Shoulder (non-trauma)		
8. Shoulder (trauma)		
9. Upper Extremity (trauma	a-nonshoulder)	

The student will move from direct to indirect supervision when he/she completes each examination.

Category D	Category E
Chest/Abdomen	
1. Routine Chest	1. U.G.I. Series or BE (Fluoroscopy)
2. AP chest non-bucky (wheelchair/stretcher)	2. C-Arm (OR settings
3. Routine Advanced Chest	
4. Routine Supine Abdomen	
5. Abdomen (erect)	

For category D, the student will move from direct to indirect supervision when he/she completes each examination.

Direct Supervision Only

Category F
Portable
1. Chest
2. Abdomen
3. Extremity

The student must always work with direct supervision for category F, (Portables), G and E.

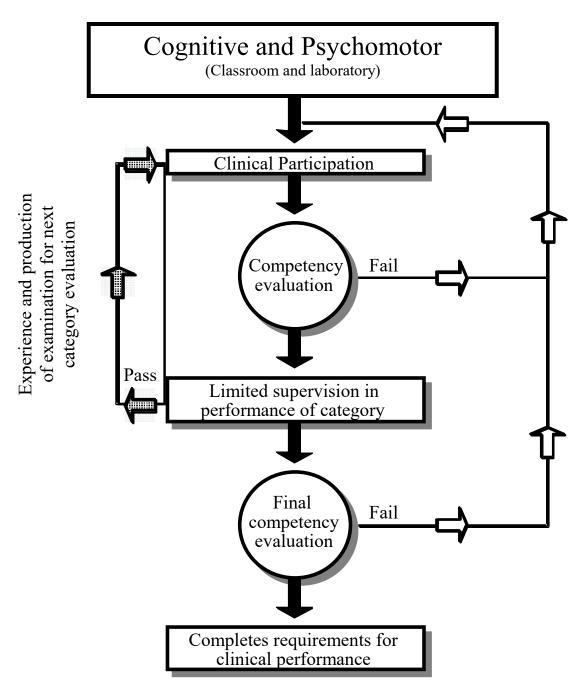
Category G
1. Peds (Age 6 or under)
2. Geriatric (Age 65 or cognitive impair)

15B. Unsatisfactory Competency Procedure

If a student fails a competency evaluation, he/she will be required to complete the Student Self-Assessment – Unsatisfactory Clinical Competency Evaluation Form and practice this exam once more before attempting to redo exam.

(See Appendix D6)

15C. Competency-Based Clinical Education Flow Chart



15D. Clinical Participation

Clinical participation has both laboratory and hospital components. To assure meaningful clinical participation, the students will have mastered cognitive competencies necessary to assure a meaningful clinical participation phase.

During the first semester of the program students participate in simulated clinical activities in the college laboratory. These activities include:

- 1. **DEMONSTRATION** the student is shown the radiographic positions in both lecture and laboratory.
- 2. **PRACTICE** combining knowledge and clinical skills, the students engage in clinically related activities in the laboratory. These activities include laboratory assignments within the formal positioning course as well as other assignments that are completed in open labs.
 - (OPEN LABS the laboratory is available between classes and in the evening. Students work under the direct supervision of the college laboratory technologist, who is a registered radiologic technologist.)

During the second semester students begin their hospital experience. This experience takes the form of five (5) separate clinical courses. Each of these courses has specific course outlines and objectives. Clinical experience at the hospital is accomplished in three progressive modes:

- 1. OBSERVATION
- 2. DIRECT SUPERVISION
- 3. INDIRECT SUPERVISION

Logging of Observed Cases

Students must provide proof of a minimum of three direct /indirect observations of the examination they seek competency in. To follow HIPAA regulations, logging of observed cases MUST only occur on the premises of the assigned health facility. A violation of this requirement will lead to disciplinary action deemed appropriate by faculty.

15E. Clinical Assessment Procedures

The demonstration mode is completed when the instructor teaches and illustrates the positions for each examination.

The lab practice mode takes place within the positioning laboratory and with assignments that are completed in open labs.

The pre-clinical assessment is a practical examination that students must complete prior to beginning their hospital practicum.

The clinical practice mode takes place at affiliate hospitals. Students perform this practice mode with either direct or indirect supervision.

15F. Equipment Manipulation Competency

Assessment Objectives

Before Clinical Competency may be performed, the student must demonstrate appropriate knowledge of how to use general radiographic equipment. The student must pass all items listed on the "Equipment Manipulation Competency Evaluation".

The student will:

- 1. Locate the main power on/off switch.
- 2. Turn the control console power on/off.
- 3. Identify the location and turn on/off the following electro-mechanical locks:
 - a. Vertical Lock
 - b. Horizontal Lock
 - c. Transverse Lock
 - d. Angulation Lock
 - e. Rotation Lock
 - f. Centering Lock
- 4. Center the overhead tube to the table bucky grid tray using the appropriate SID.
- 5. Center the overhead tube to the wall bucky grid tray using the appropriate SID.
- 6. Position the overhead tube for a routine PA hand examination.

See Appendix D for the Equipment Competency form.

15G. Clinical Competency Objectives

The purpose of the clinical competency evaluation is to assess the students' ability to meet the following objectives:

- 1. Equipment Manipulation
- 2. Basic Medical Procedures
- 3. Technical Factors
- 4. Positioning Skills
- 5. Radiation Protection
- 6. Image Evaluation
- 7. Student Patient Interaction/communication
- 8. Patient Transfer
- 9. Patient Care

Clinical competency evaluations assess the students' ability to meet clinical education objectives. Evaluations are graded on a pass/fail basis. Clinical competency requirements designated in each clinical course are considered to be the minimum criteria for successfully completing the clinical course.

15H. Clinical Competency Assessment

Students are required to meet particular competency requirements for each semester. Students who do not complete the minimum number of competencies will have points deducted from their clinical grade.

15I. Hospital Tested Competencies - by Semester

Students are required to perform fifty-one competency examinations (thirty-six mandatory and 15 electives, with the chance of simulating ten of them) at their clinical education center. The competencies required each semester are the **minimum** number necessary to receive **full** credit towards their clinical grade. Please see appendix D. Successfully completed competencies will be submitted by your clinical supervisor, instructor, coordinator or any other designated person on Trajecsys and will available for you to evaluate your progress.

FIRST YEAR:

Clinical Radiography 1

No competencies can be performed until the student successfully completes the equipment manipulation competency. Before attempting any competency, student must provide a record of three minimum observed cases logged. A minimum of four exams indicated below must be completed under the direct supervision of the Clinical Instructor or Clinical Coordinator.

The clinical grade is only based upon completing the required minimum exams.

- Equipment Manipulation
- Basic Medical Technique (to be completed within the first two months of clinical by clinical instructor)
- Routine chest
- Upper or lower extremity (2)
- AP chest stretcher/wheelchair
- Routine Abdomen or Extremities

**The student may perform additional exams during all sessions (with approval of clinical supervisor and technologist).

Clinical Radiography 2

The student must perform a minimum of 12 exams. The student may perform additional exams; however, the grade is based upon completing the 12 required exams.**

<u>SECOND YEAR:</u> (Spot comps will be done by clinical coordinator or clinical instructors).

Clinical Radiography 3

The student will perform a minimum of 12 additional exams. The student may perform additional exams; however, the grade is based upon completing the 12 required exams.

Clinical Radiography 4

The student will perform a minimum of 12 additional exams. The student may perform additional exams; however, the grade is based upon completing the 12 required exams.

Clinical Radiography 5

The student will perform additional exams for a total of 51 competencies (36 mandatory and 15 electives, with the option of simulating 10 of them. Please, refer to ARRT guidelines).

PLEASE NOTE:

At any point during the clinical component of the program, a student may be retested by the clinical coordinator on any exam they have been deemed competent. (Please see 15B, page 27)

15J. Laboratory Competencies

In addition to the hospital-based competencies, the following mandated competencies will be simulated in the college laboratory (10 might be counted toward the 51 competencies required by ARRT).

- 1. Routine Skull
- 2. Temporomandibular Joints
- 3. Mandible
- 4. Orbits
- 5. Facial Bones
- 6. Nasal Bones
- 7. Paranasal Sinuses
- 8. Sacrum/Coccyx
- 9. Scapula
- 10. Sternum
- 11. Clavicle
- 12. Chest Lateral Decubitus
- 13. Soft Tissue neck
- 14. Sternoclavicular Joints
- 15. Ribs
- 16. A.C Joints
- 17. Thumb or finger
- 18. Humerus
- 19. Calcaneus
- 20. Patella
- 21. Femur
- 22. Tibia/Fibula
- 23. Toes
- 24. Thoracic spine
- 25. Cross table spine
- 26. Cross table hip
- 27. Scoliosis

- 28. S.I. Joints
- 29. Abdomen Upright
- 30. Abdomen Decubitus
- 31. C- Arm Manipulation
- 32. C-Arm Sterile field
- 33. Pediatric Chest.
- 34. Pediatric Upper or Lower extremity
- 35. Pediatric Abdomen
- 36. Pediatric Mobile study

16. CLINICAL OBJECTIVES FOR ELECTIVE ROTATIONS

The appropriate role for the student technologist during elective rotations is to observe and/or assist during these rotations. The following is a list of clinical objectives for the elective rotations of Special Procedures, Computed Tomography (CT), Magnetic Resonance Imaging (MRI) and Mammography.

16A. Interventional Procedures

The Student Will:

- 1. Demonstrate the ability to assist in the appropriate transport and transfer of patients.
- 2. Observe and/or assist in the positioning of the patient and preparation of auxiliary imaging equipment.
- 3. Observe and/or assist in the preparation of the power injector (if needed).
- 4. Observe and/or assist with aseptic techniques.
- 5. Identify the various catheters, guidewires, dilators and drainage tubing used in I.R. exams.
- 6. Assist in providing adequate radiation protection for patient personnel.
- 7. Evaluate the radiographic quality of the examination and describe related anatomy and pathology.

16B. Computed Tomography (CT)

The Student Will:

- 1. Demonstrate the ability to assist in the proper transport and transfer of the patient.
- 2. Observe and/or assist in the positioning for various CT examinations

- 3. Observe, identify, and/or assist in the selection of proper technical factors and programming requirements for the examination.
- 4. Observe and/or assist in the preparation of the power injector (if needed).
- 4. Assist in providing adequate radiation protection for the patient and personnel.
- 5. Identify cross-sectional anatomical structures.

16C. Magnetic Resonance Imaging (MRI)

All students must complete MR safety screening before rotating through MRI.

The Student Will:

- 1. Assist in providing adequate screening for the patient and personnel.
- 2. Demonstrate the ability to assist in the proper transport and transfer of the patient.
- 3. Observe and/or assist in the positioning for various MRI studies.
- 4. Observe and/or assist in identifying and placing RF coils on the patient.
- 5. Observe and/or assist in the preparation of the power injector (if needed).
- 5. Identify cross-sectional anatomical structures.

16D. Bone Density/Mammography

The Student Will:

- 1. Demonstrate the ability to assist in the proper transport and transfer of the patient.
- 2. Observe and/or assist in the positioning of the patient.
- 3. Observe and/or assist in the selection of proper technical factors and programming requirements for the examination.
- 4. Assist in providing adequate screening for the patient and personnel.
- 5. Identify anatomical structures.
- 6. Observe and or assist in Quality Control testing.

APPENDIX A

Laboratory-Tested

Competency Forms

LABORATORY COMPETENCY EVALUATION CRITERIA

1. EQUIPMENT MANIPULATION:

- a. Adequately manipulate locks and/or bucky grid
- b. Position tube properly
- c. Proper use of psychomotor &visualization skills
- d. Identify image with appropriate markers

2. TECHNICAL FACTORS:

- a. Measure patient correctly
- b. Select appropriate exposure factors (kVp, mAs & FFD)
- c. Select correct technical factors (image receptor & grid)

3. POSITIONING SKILLS:

- a. Position patient correctly & select appropriate image receptor size
- b. Center anatomical area of interest to image receptor
- c. Align central ray to image receptor
- d. Use immobilizing devices correctly
- e. Instruct patient properly

4. RADIATION PROTECTION:

- a. Collimate beam properly
- b. Shield patient correctly

5. IMAGE ANALYSIS:

- a. Evaluate radiograph for visibility and sharpness
- b. Evaluate radiograph for proper positioning

Students must meet all evaluation criteria to successfully complete the Competency Evaluation.

Radiographing A Patient - Table Bucky

Exhibit: A

A MEET & GREET B EQUIPMENT C COMPLETE

Call Patient

Student Introduction

Identify Patient – 2 Identifiers

Questions Patient About a reason for Exam

Get Patient Changed



Set Console to TABLE Bucky

Set Technique on Console

Place Image Receptor (IR) in Table Bucky Tray, Push In & Lock Tray

Detent Tube to Table & Move Tube Toward Feet

Place Patient on Table & Shield Patient

Center Bucky to Table & Center Tube to Bucky IR



Position Patient

Give Breathing/Movement Instructions

Make Exposure & RE-Breath
Patient

Review Image & Position
Patient for Next Image & Repeat
to Complete Exam

Move Tube Away From Patient, Remove Patient From Table

Give Discharge Instructions to Patient & Send Images to PACS

Radiographing A Patient - Wall Bucky

Exhibit: B

A
MEET & GREET

B EQUIPMENT C COMPLETE

Call Patient

Student Introduction

Identify Patient – 2 Identifiers

Questions Patient About a reason for Exam

Get Patient Changed



Set Console to WALL Bucky

Set Technique on Console

Place Image Receptor (IR) in Wall Bucky Tray, Push In & Lock Tray

Detent Tube to Wall Set Correct Tube Distance

Place Patient in Front of Wall Bucky and Shield Patient



Position Patient

Give Breathing/Movement Instructions

Make Exposure & RE-Breath
Patient

Review Image & Position
Patient for Next Image & Repeat
to Complete Exam

Move Tube Away From Patient, Remove Patient From Wall Bucky

Give Discharge Instructions to Patient & Send Images to PACS

Radiographing A Patient - Table Top (Non-Grid)

Exhibit: C

A
MEET & GREET

B EQUIPMENT C COMPLETE

Call Patient

Student Introduction

Identify Patient – 2 Identifiers

Questions Patient About a reason for Exam

Get Patient Changed



Set Console to Table Top (Non-Grid)

Set Technique on Console

Place Image Receptor (IR) on TABLE TOP

Place Patient Body Part on Image Receptor & Shield Patient

Center Tub to Image Receptor



Position Patient on Table/Chair

Give Breathing/Movement Instructions

Make Exposure & RE-Breath
Patient

Review Image & Position
Patient for Next Image & Repeat
to Complete Exam

Move Tube Away From Patient, Remove Patient From Table/Chair

Give Discharge Instructions to Patient & Send Images to PACS

LABORATORY COMPETENCY

WORKBOOK

Assignment 1: Category 2: Upper & Lower Extremities

Assignment 2: Category 3: Thorax & Vertebral Column

Assignment 3: Category 4: Skull

Lab Competency Worksheet 1 Category 2 Examinations

Thumb	Projection	Pass	Fail	Projection	Pass	Fail	Projection	Pass	Fail
	PA			Lateral					
Hand	PA			Lateral			PA oblique		
Wrist	PA			Lateral			PA oblique		
Forearm	AP			Lateral					
Elbow	AP			Lateral					
Humerus	AP			Lateral					
Foot	AP axial			Lateral			AP oblique		
Lower Ext	remities								
Anatomy	Projection A.P. exict	Pass		Projection	Pass		Projection A.P. obligue	Pass	
root	AP			Lateral			AP oblique		
Ankle	AP oblique			projection)			Air oblique		
Calcaneus	Axial			projection					
Leg	AP			Lateral					
	AP			Lateral					
Knee				<u> </u>					
Knee Patella	Tangential	(Set	tegas	t method)	ш				

Lab Competency Worksheet 2 Category 3 Examinations

Name:					• • • • • • • • • • • • • • • • • • • •	
Bony Thora	x					
Anatomy	Projection	Pass	Fail	Projection	Pass	Fail
Shoulder	AP, internal rotation			AP, external rotation		
Scapula	AP			Lateral, erect		
Clavicle	AP			AP axial		
Ribs	AP			AP oblique (RPO or LPO)		
Sternum	PA oblique (RAO)			Lateral, erect		
Simulated E	xams					
Anatomy	Projection	Pass	Fail	Projection	Pass	Fail
Pediatric Chest	PA			Lateral, erect		
Esophagus	PA oblique (RAO)			PA oblique (LAO)		
Anatomy	Projection	Pass	Fail	Projection	Pass	Fail
Cervical Spine	AP axial			Lateral, erect		
Cervicar Spine	PA axial oblique (RAO or LAO)			Lateral, horizontal beam		
Thoracic Spine	AP			Lateral		
Lumbar Spine	AP			Lateral		
Eumour Spine	AP oblique (RPO or LPO)			Lateral L5/S1		
Sacrum	AP			Lateral		
Соссух	AP					
Pelvis	AP					
S.I. Joints	AP obliques (LPO and RPO)					
All projection	ons successfully completed		All	failed projections must be repeate	ed	
Evaluator:				Date		
Comments:						

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Lab Competency Worksheet 3 Category 4 Examinations

Name:		•••••					•••••
Routine S	Skull						
Projection		Pass	Fail	Project	ion	Pass	Fail
PA	(Perpendicular method)			Lateral	(Right or Left)		
AP axial	(Towne method)			Subme	ntovertical (Schüller method)		
Routine I	Paranasal Sinus	es					
Projection		Pass	Fail	Project	ion	Pass	Fail
PA axial	(Caldwell 15° method)			Lateral	(Right or Left)		
Parietoacanth	ial (Waters method)			Subme	ntovertical (SMV)		
Anatomy Facial bones	Projection Modified parietoacant	nial		ss Fail	Projection Waters method)	Pass	
Facial bones	Modified parietoacanth	nial	(N	Modified	Waters method)		
Nasal bones	Right lateral] 🗆	Left lateral		
Mandible	PA				Axiolateral oblique		
T.M.J.	AP axial		(1	Modified	Towne method)		
1.171.J.	Axiolateral oblique		(Modifie		Law method)		
Zygomatic	Submentovertical (SM	IV)			Oblique inferosuperior (Tange	ntial)□	
Orbits	Parietoorbital oblique		(F	Rhese m	ethod)		
All projections successfully completed All failed projections must be repeated							
Evaluator:					Date	•••••	•••••
Comments:							•••••
••••••		•••••••	••••••				••••••
	••••						

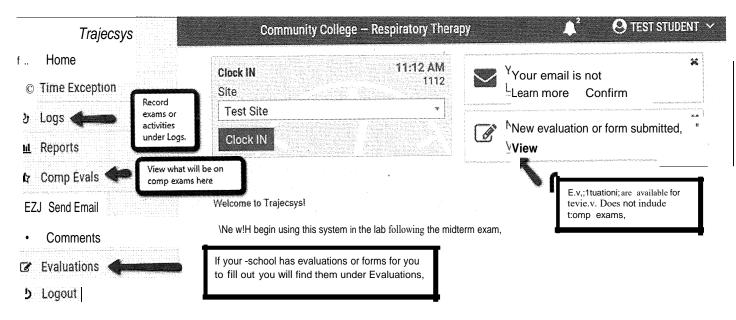
Lab Competency Worksheet 4 Repeated Projections

	Anatomy	Projection	Method	Pass Fail
1				
2				
3				
4				
5				
6				
7				
8				
9				
0				
	All projections su	ccessfully completed	All failed projection	ns must be repeat
Evalua	tor:		Date	
Comm	ents:			
• • • • • • • • • • • • • • • • • • • •				
		•••••	•••••	•••••

Student Menu and Instructions

The Trajecsys Student Menu was designed to be as user friendly as possible. This "cheat sheet" highlights the primary functions that most students will utilize on a daily basis.

Student Home Page

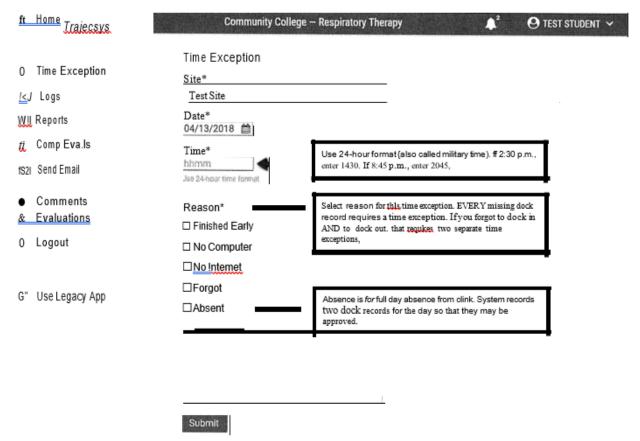


Clock In/Out - Students will clock in each day at their clinical site and clock out at the end of their shift, at their assigned clinical site. This will only be done when the student is physically at their assigned clinical site. Clocking in/out from another computer or through the student's phone will only be allowed if the assigned clinical site computer is not functioning; It must be done near the location of the assigned clinical computer.

Reports - Students may access these items on the Reports menu page:

- Time summary
- Skill summary (compilation of log sheet entries and linked comp exam results; click comp date hyperlink to view item-by-item results)
- Evaluation results other than comps (use either the Evaluation Summaries or Completed Evals/Forms for evaluation results - same info in different formats)
- Note: some schools expect students to add a comment to a comp exam or to an evaluation form that was submitted by an instructor on the student. Students will open the result on their Reports page (Skill Summary for comps and Evaluations for other forms), scroll to the bottom and click the +Add Comment. The student will type a comment in the text box and click Add to append a comment to the document. These are called Post Submission Comments

Time Exception - If you don't file a clock in or out record, you must file a "time exception" instead. Using the clock in/out page is always preferred over filing time exceptions. A time exception is required for every missing clock record. If a student forgets to clock in AND forgets to clock out, this requires two separate time exceptions to correct the two missing clock records. One time exception is not sufficient to replace two missing clock records. Again, time exceptions should be used rarely; students should use the clock in / out button on the home page to record time records. **Enter time exceptions in 24-hour format (8:00 AM is 0800; 1:00 PM is 1300; hours; 9:00 PM is 2100).**

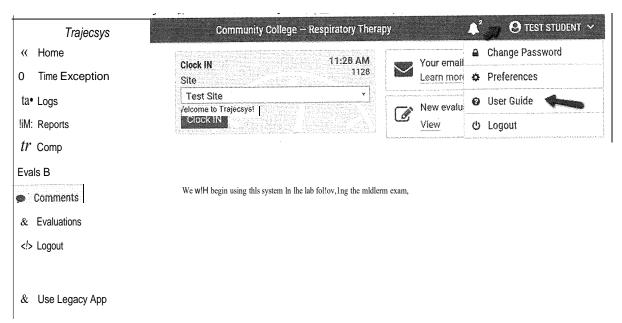


Daily Log Sheets - Students will complete the items on the Logs menu page. Each school may designate different items that are presented on this page. Your selections may differ from these:

- Date of exam or activity practiced
- Clinical site
- Key ask program leader what to use for the key field
- Name of supervising employee (if not in list, click New and add full first and last names, then click Add)
- Click Add Log sheet; then select:
- Major study
- Procedure
- Time
- Comments

Any other requested items

- □ **Evaluations** This menu item is used for evaluations or other forms that students will complete. (Note: not all programs will have this menu item.)
- ☐ **Troubleshooting** The User Guide can be accessed by clicking your name which will be located in the upper right hand corner.



- □ **Payments** Students who pay us directly can go to our website:

 <u>www.trajecsys.com</u> and click Payments in the upper right corner. The direct link to the payments page is: https://www.trajecsys.com/Payments.aspx
- □ **NOTE** Some schools will not have comp evals on the menu, while others may not have Logs or the Evaluation menu item

APPENDIX B

Clinical Record Keeping

Forms

Clinical Handbook EDUCATION AGREEMENT

<i>I</i> ,	hereby acknowledge:							
	PRINT STUDENT'S NAME							
1.	I have received a copy of the Radiologic Technology Program's Clinical Handbook; and, I have carefully read and understand the policies and procedures of the program.							
2.	I have carefully read and understand the "clinical objectives" contained in the Radiologic Technology Program's Clinical Handbook.							
3.	I have carefully read and understand the "clinical education rules and regulations",6 and 6A, numbers one (1) through twenty two (21).							
4.	I have carefully read and understand the "clinical attendance policy" numbers 6B, "clinical probation and dismissal policies" number 6C, and "substance abuse policy" number 6D.							
5.	I have carefully read and understand the "levels of clinical supervision" number 12 through 12D and will strictly adhere to this policy.							
 <i>I</i> .	hereby grant:							
- , ₋	PRINT STUDENT'S NAME							
1.	Hostos Community College's Radiologic Technology faculty permission to send for, or share, any information they consider necessary and appropriate to verify my personal, academic, medical and/or legal records.							
2.	Permission for my file to be examined as part of the routine accreditation review proceedings.							
I h	ereby affirm all of the above statements.							
Stı	ident's Signature: Date:							
Sw	vorn to before me this day of 20							
No	otary's Signature:							

Excess Clinical Lateness Notice

TO:		-
FROM:	(Clinical Coordinator)	_
DATE:		-
RE:	Lateness	
	According to the attendance re	cords at:
		you were late on the
following	three days:	
	e equivalent of one (1) absence; the your accrued absences for this sem day(s), which must be made up d	
Comments:		
I have reviewe file.	ed the above information and understand that the	is notification will be placed in my permanent studen
S1	tudent's Signature	Clinical Coordinator's Signature

EXCESS CLINICAL ABSENCE NOTICE

Date:
Student name:
According to the attendance records at:
You were absent on the following days:
You have exceeded the number of absences permitted for this semester by day(s). Therefore, you must submit documentation for all future excess absences.
According to the Clinical Handbook: If a student exceeds the number of allowable absences for a clinical course, a five point grade deduction will occur for each day beyond the allowable absences. The student will also be placed on clinical probation. Please refer to the Clinical Handbook, page 9, #6B.2.
(See: Radiologic Technology Program Clinical Handbook for additional details.)
Please Note: Excess absences may result in disciplinary action.
Comments:
Clinical Coordinator's Signature
I have reviewed the above information and understand that this notification will be placed in my permanent student file.
Student's Signature

APPENDIX C

Clinical Evaluation

Forms

Mid-Semester Clinical Evaluation

Stude	ent:	Date:								
Hospi	ital: Clinical Radiography	1 11	III I	v v						
Evalu	nator:									
	PLEASE NOTE Categories 4, 5, and 7 are not applicable for Clinical Radiography	l only.								
	ase indicate your rating of the above student each category listed below:	Good	Satisfactory	Needs Improvement	Does Not Apply					
	Overall Impression Clinical evaluator's impression of the student's progress throughout the semester									
1.	Professionalism Student's conduct in dealing with supervisors, technologists and patients									
2.	Following Instructions Student's ability to take and follow direction									

2. Following Instructions
Student's ability to take and follow direction

3. Communication Skills
Student's ability to verbally communicate with supervisors, technologists and patients

4. Positioning Skills
Student's ability to position patients correctly

5. Computing Technique
A. Student's ability to compute appropriate exposure factors

B. Adapt factors for various patient conditions

6. Radiation Protection
Student's adherence to radiation protection procedures and protocol.

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7.

8.

Knowledge of Equipment

Patient Care

Student's knowledge of equipment and their proper utilization

Student's ability to assess the patient's needs in order to complete the exam

Please indicate you for each category li	r rating of this student sted below:		Satisfactory	Needs Improvement		
A. Clinical Competer Student's adherence	ncy Policy to the college's direct and indirect supe	rvision levels				
B. <u>Appearance</u>	to the program's professional dress cod					
C. <u>Dependability</u> Student's willingness	to perform tasks within his or her abili	ties				
Please explain any needs i	nprovement items below:					
Have there been any incidents of clinical misconduct? Have there been any incidents where the student did NOT follow the correct patient identification procedures? NoYes, please explain below						
correctly perform and/or label an examination? NoYes, please explain below						
Describe the student's clinic	al strengths:					
What could the student have	e done to improve his or her clinical per	rformance?				
Additional Comments:						
□ NO COMMENTS Clinical Evaluator's Signature						
Student's Comments:						
□ NO COMMENTS Student's Signature						

Final Clinical Evaluation

Clinical Supervisor / Clinical Instructor

Student	Date:									
Hospita	il: Clinical F	Radiogra	phy:	II I	III IN	/ V				
Evaluat (Please P		[Supe	rvisor	☐ Ins	tructor				
	Excellent = Student has successfully satisfied the category within 90-100% accuracy Good = Student has successfully satisfied the category within 80-89% accuracy Satisfactory = Student has successfully satisfied the category within 70-79% accuracy Needs Improvement = Student has failed to complete the objectives for this semester									
	se indicate your rating of the above student ach category listed below:	4 Excellent	⁵⁰⁰⁹ 3	Satisfactory	→ Needs Improvement	O Fail				
Cli	rerall Impression nical evaluator's impression of the student's progress throughout semester									
S	Professionalism Student's conduct in dealing with supervisors, technologists and patients									
2. <u>F</u>	Following Instructions Student's ability to take and follow direction									
S	Communication Skills Student's ability to verbally communicate with supervisors, echnologists and patients									
	Positioning Skills Student's ability to position patients correctly									
	Computing Technique A. Student's ability to compute appropriate exposure factors									
F	3. Adapt factors for various patient conditions									
	Radiation Protection Student's adherence to radiation protection procedures and protocol.									
S	Knowledge of Equipment Student's knowledge of equipment and their proper utilization									
S	Patient Care Student's ability to assess the patient's needs in order to complete the exam									

	ase indicate your rating of this student each category listed below:		Satisfactory	Needs Improvement	
A.	Clinical Competency Policy Student's adherence to the college's direct and indirect supervision leve	ls			
В.	Appearance Student's adherence to the program's professional dress code				
C.	<u>Dependability</u> Student's willingness to perform tasks within his or her abilities				
Pleas	e explain any needs improvement items below:		<u> </u>		
Have	there been any incidents of clinical misconduct? N	oYes, please explain belo	w		
Have there been any incidents where the student did NOT follow the correct patient identification procedures? No Yes, please explain below					
Have there been any incidents where the student did NOT correctly perform and/or label an examination? NoYes, please explain below					
Descr	ribe the student's clinical strengths:				
What	could the student have done to improve his or her clinical performance?				
Addi	tional Comments:				
□ N¢	O COMMENTSClinic	al Evaluator's Signature			
Stud	ent's Comments:				
□ No	O COMMENTS	Student's Signature			

Final Clinical Evaluation

Clinical Coordinator

Date:

Hospi	tal: Clinical Radio	graphy:	l II	III IV	/ V	
	Excellent = Student has successfully satisfied the category within 90-100% accuracy Good = Student has successfully satisfied the category within 80-89% accuracy Satisfactory = Student has successfully satisfied the category within 70-79% accuracy Needs Improvement = Student has failed to complete the objectives for this semester					
	ase indicate your rating of the above student each category listed below:	4 Excellent	9009 3	Satisfactory	L Needs Improvement	O Fail
	Overall Impression Clinical evaluator's impression of the student's progress throughout the semester					
1.	Professionalism Student's conduct in dealing with supervisors, technologists and patients					
2.	Following Instructions Student's ability to take and follow direction					
3.	<u>Communication Skills</u> Student's ability to verbally communicate with supervisors, technologists and patients					
4.	Positioning Skills Student's ability to position patients correctly					
5.	Computing Technique A. Student's ability to compute appropriate exposure factors					
	B. Adapt factors for various patient conditions					
6.	Radiation Protection Student's adherence to radiation protection procedures and protocol					
7.	Knowledge of Equipment Student's knowledge of equipment and their proper utilization					
8.	Patient Care Student's ability to assess the patient's needs in order to complete the exam					
9.	Image Analysis and Clinical Assignments Student's performance in image analysis classes and other clinical assignments					

Deductions to the Clinical Grade:

Student:

	A	Exceeded the allowable number of absences by: 1 2	3 4			
	В	Insufficient number of competencies completed:	%			
	C	Failed to sign the monthly dosimetry report within the appropriate time	(-1)			
	D	Failed to return the film badge by the 15th of the month	(-2)			
	E	Lost the film badge due to negligence or not wearing dosimeter	(-5)			
	F	Clinical misconduct; violated a stated clinical policy or procedure; received a suspension from the hospital for days				
	G	Failed to follow the correct patient identification procedure; but, brought the right patient into the exam room; no exposures made	(-1)			
	Η	Failed to follow the correct patient identification procedure; brought the wrong patient into the exam room; no exposures made	(-5)			
	I	No markers visible on the radiograph/image receptor	(-1)			
	J	Incorrect placement of L/R markers on the radiograph/image receptor	(-3)			
	K	Performed the wrong view or routine on the patient	(-5)			
	L	Performed the wrong exam on the patient	(-10)			
	M	Digitally linked the wrong patient data with the exam	(-25)			
Please explain any checked items below:						
Additional Comments:						
□ No comments						
Clinical Coordinator's Signature						
Student's Comments:						
Stud	dent's		iicai Coordinatoi S Sigri			
Stud	dent's		iicai Coordinatoi S Sigri			
Stud	dent's		ilical Coolulliator S Sign			

APPENDIX D

Clinical Forms

STUDENT EVALUATION EQUIPMENT MANIPULATION COMPETENCY

	Name	Evaluator			
	Hospital	Date			
	Room/Equipment		·	·	
			<u>Pass</u>	<u>Fail</u>	<u>N/A</u>
1.	Locate the main power on/off switch.				
2.	Turn the control console power on/off.				
3.	Identify the location and turn on/off the following ba	sic locks:			
	a. Vertical Lock				
	b. Horizontal Lock				
	c. Transverse Lock				
	d. Angulation Lock				
	e. Rotation Lock				
	f. Centering Lock				
4.	Identify the location and engage (on) and disengage (locks not listed above.	off) any of the			
5.	Position the overhead tube for a routine PA hand exa	mination.			
6.	Center the overhead tube to the table bucky grid tray abdominal study.				
7.	Center the overhead tube to the wall bucky grid tray abdominal study.	or an upright			
	STUDENTS MUST PA	SS ALL ITEMS			
	Student Signature				
	Evaluator's Signature				

COMMENTS:		 	

Clinical Evaluation and Assessment

Clinical Affiliation Site

BronxC	Care Northwell LHH Montefiore Einstein/Hutchinson GRADE:					
Lincoln Medical Ctr LHGV MSKCC St. Barnabas VA Hospital						
Student: Date:						
Mode o	f Transport: Ambulatory Wheelchair Stretcher Portable Date:					
Exami	nation: Trauma Study? Yes No					
Patholo	gy: Port/ Geriatric/ Pediatric					
Projecti	ons: 1) 2) 3) 4) 5) Category: A B C D E F					
-	or: Passing Grade:75 ≥					
	tient Care (20 points- 2 points each)					
	Reads requisition and correctly interprets clinical information relevant to the radiographic exam.					
1.						
2.	Properly prepares the patient for exam requested – gowns/ removes objects that may cause a repeat exposure.					
3.	Makes room ready: clean and organized; items relevant to the exam (<i>sheets, pillows, positioning aids, tape, markers</i>) prepared and/or available.					
4.	Verifies patient's complete name and date of birth using a minimum of 2 identifiers.	A.F.				
5.						
6.	Demonstrates effective communication skills (speaking, listening, non-verbal) to facilitate exam.					
7.	7. Apply critical-thinking to monitor patient's comfort due to age, mental status, physical condition.					
8.	3. Performs correct examination on patient.					
9.	Use of gonadal and/or breast shield when applicable.					
10.	Practices medical asepsis and uses criteria for infection control (isolation - contact, airborne) when appropriate for the exam.					
II. Positioning (20 points- 4 points each)						
1.	Identifies and applies the facility's protocol.					
2.	Selects and uses positioning aids when applicable.					
3.	Correctly positions body part for each projection required (includes the element of time).					
4.	Accurately places central ray to the body part in question.					
5.	Identifies a minimum of 5 anatomical structures and functions in the radiographic image(s).					
III. Ear	nipment/ Portable Machine manipulation (20 points- 5 points each)					
1.	Radiographic table manipulation/ grid selection.					
2.						
3.	+ ^ '					
L						

_			
	4.	Operates the equipment in a safe and appropriate manner (portable and table-top exams).	
IV	. Exp	posure Factors and Radiation Protection- ALARA (20 points- 4 points each)	
	1.	Demonstrates cognition of appropriate exposure and adjustments (D.I. E.I.) that will render an optimal radiograph on ALL projections required for the exam.	
	2.	Employs correct collimation to the body part in question for each projection.	
Ī	3.	Wears lead apron when necessary (mobile, fluoroscopic procedures).	A.F.
Ī	4.	Clears area of visitors and staff during mobile and/or fluoroscopic procedures.	A.F.
	5.	Provides protective lead aprons to personnel/ patients in proximity to exam.	
V.	Imag	ge Evaluation & Analysis (20 points- 5 points each)	
Ī	1.	Student will evaluate and critique images for positioning and /or centering.	
	2.	Student will explain methods of improving image quality by integrating at least 2 of the following: • Exposure parameters (kVp, mAs, SID, EI, grid ratio, CR and DR factors) • Patient body habitus • 15% rule • Pathology (based on student's level of knowledge) • Environmental factors (mobile radiography) • Artifacts (pre/ post processing)	
	3.	Proper markers used and visible in the exposed field for each projection.	
	4.	Repeated images*	A.F.
Re	marks	A.F.: Automatic Failure	
		S Signature: Date: Instructor's Signature: Date:	
-11	miled instructor's signature.		

BASIC MEDICAL TECHNIQUES

			DATE:	//_	
Ī.	STAN	NDARD PRECAUTIONS PTICTECHNIQUE)			
		UDENT WILL DEMONSTRATE THE USE OF ARD PRECAUTIONS FOR INFECTION CONTROL.	PASS	FAIL	Competency Completed
	1. 2.	Utilizes gloves for touching blood/body fluids. Identifies that gloves are changed and hands washed after patient contact.			
	3.	Identifies the correct use of face masks.			
	4. 5.	Demonstrates the correct use of gowns. Demonstrates the correct way to dispose of hypodermic needles.			
11.	THE STOMETHO	CT ISOLATION UDENT WILL DEMONSTRATE THE CORRECT D OF ENTERING AND LEAVING AN ISOLATION USING STRICT ISOLATION TECHNIQUES.			
	1.	Identifies the need to remove all jewelry/and wears a cap if hair touches collar.			
	2.	Demonstrates the proper way to wear mask.			
	3.	Demonstrates hand washing technique			
	4.	Demonstrates how to put on gown.			
	5.	Demonstrates the proper way to wear gloves.			
	6.	Places extra clean gloves on the portable machine.			
	7.	Properly places covered cassette for exposure			
	8.	Identifies the need to remove contaminated gloves before making an exposure.			
	9.	Demonstrates the removal of the covered cassette to the assistant.			
	10.	Remove contaminated gloves and gown properly.			
	11.	Rewashes hand for 2 minutes without touching handles with bare hands.			
	12. 13.	Demonstrates cleaning the portable machine. Identifies the need to wash hands again.			

III. MEDICAL EMERGENCIES

THE STUDENT WILL IDENTIFY THE CORRECT ACTION TO TAKE IN AN EMERGENCY INVOLVING A PATIENT FAINTING OR HAVING A CONVULSIVE SEIZURE.

		PASS	FAIL	
1.	Fainting (Syncope) - demonstrates the correct action when handling a fainting spell.			Competency Completed
2.	Convulsive Seizures - demonstrates the correct action when handling a convulsive seizure.			
3.	Identifies the location of the Emergency Cart.			
4.	Identifies the proper protocol for medical emergencies.			
Comme	nts:			
		Instructor'	s Signature	
		Student's	Signature	_

APPENDIX E

DIDACTIC AND CLINICAL COMPETENCY REQUIREMENT