2022-2023

School of Radiography

Clinical Handbook

Heritage Valley Kennedy
School Of Radiography

412-777-6210

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Kennedy Township, PA 15136

HeritageValley.org

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Heritage Valley Kennedy

School of Radiography

Mission Statement

The mission of Heritage Valley Kennedy's School of Radiography is to meet the needs of the communities we serve by offering a radiologic technology program that provides an environment for the development of competent and professional future radiologic technologists by offering a solid clinical and theoretical background in the Radiologic Sciences.

Fundamental Goals

Upon completion of the program the student will demonstrate:

- Clinical Competency
- Critical Thinking Skills
- Professionalism
- Communication Skills

CLINICAL COMPETENCY

Heritage Valley Kennedy offers a clinical competency-based radiography program.
The clinical competency process is a mechanism that gradually takes the student from the passive role of an observer to the more active role of a performer. The process systematically builds, strengthens, and tests the student's technical knowledge and abilities so consistency and excellence is achieved in clinical performance. The clinical competency process begins during the first week of orientation and continues throughout the program.

The Clinical Competency Program was designed for the following specific purposes:

1. Provide a balanced education and assure a sound clinical experience
2. Enable students to become competent and proficient in radiographic procedures
3. Comply with the JRCERT Standards
4. Meet and exceed the ARRT Core Clinical Competency Requirements
5. Ensure high standards of patient care
6. Minimize radiation exposure through the knowledge and practice of sound radiation protection
7. Increase clinical confidence and professionalism

Clinical labs are scheduled and taught by the Clinical Coordinator. These labs provide the student with basic positioning skills and the opportunity to practice the skills in a non-radiation environment. The labs introduce the student to basic radiographic procedures that gradually increase in complexity as the student progresses through the program.

In addition to clinical labs, the student is assigned to a specific radiographic room under the direction of a qualified radiographer or the Clinical Coordinator. This allows the student to gain hands-on patient experience. Depending on the student's level of competency, the student may be observing, assisting with, or performing the examination.

After observing and assisting with a procedure, the student may gain preliminary competency by demonstrating the ability to perform the procedure proficiently, satisfactorily, and nearly independently while still under the direct supervision of the radiographer. Once the student has satisfied all preliminary competency requirements for a specific procedure, as outlined on the Preliminary Competency Check Sheet, the student may formally test on the procedure to prove competency. (Please refer to the Clinical Competency section of this handbook).

A student is deemed competent in a specific radiographic procedure by obtaining 85 percent or higher on a Radiographic Examination Competency Form via Trajecsys on an electronic form that is completed and signed by an attending qualified radiographer. After achieving competency on a specific procedure, the student must perform the procedure under indirect supervision. **However, regardless of the student's level of competency, the student may not repeat any projection without the direct supervision of a qualified radiographer.**

Ongoing student proficiency in and knowledge of radiographic procedures is demonstrated by the terminal competency process, as outlined in this handbook. (Please refer to the Terminal Competency section of this handbook).

The student's clinical conduct is also evaluated by the Clinical Coordinator in order to measure the student's professionalism. (Please refer to the Professional Adjustment section of this handbook.)

JRCERT
The Joint Committee on Education in Radiologic Technology
20 N. Wacker Drive, Suite 2850
Chicago, Illinois 60606-3182
(312) 704-5300

RADIOGRAPHY PROGRAM DEFINITION OF TERMS

Assist The act of the student helping a radiographer in the performance of a radiographic procedure in a relevant and educational manner, as determined by the attending radiographer, without the student actually performing the examination. Examples of student assistance include bringing patients to the room, retrieving and obtaining patient history.

Comp An abbreviated term for "Radiographic Examination Competency". This term refers to a radiographic procedure performed by a student in which competency, according to criteria on the Radiographic Examination Competency Form via Trajecsys on an electronic form which is satisfied with a score of 85 percent or higher as determined by an attending qualified radiographer.

Comp Form An abbreviated term for "Radiographic Examination Competency Form." This electronic form is used by an attending qualified radiographer or the Clinical Preceptor when evaluating a student's clinical performance and resultant images while testing for competency.

Direct Supervision *S*tudents must be supervised under the following parameters:
A qualified radiographer:

1) Reviews the procedure in relation to the students achievement
2) Evaluates the condition of the patient in relation to the students knowledge
3) Is present during the entire procedure
4) Reviews and approves the procedure
5) Is present during student performance of any repeat of any unsatisfactory radiograph

Exam Simulation A formal test performed by a student on a non-patient individual and evaluated by the Clinical Coordinator in order to demonstrate student competency in a specific radiographic procedure. The Radiographic Examination Competency Form or Lab Demonstration testing electronic form via Trajecsys is used to evaluate the student on criteria that is limited, but similar, to criteria used to evaluate for competency on actual patients.

Indirect Supervision: Supervision provided by a qualified radiographer immediately available to assist the students within hearing distance. The student must have achieved a passing grade for the competency to perform it within a hearing distance of a qualified radiographer. The technologist must be immediately available and is interpreted as the presence of a qualified radiographer adjacent to the room or location where a radiographic procedure is being performed. This availability applies to all areas where ionizing radiation equipment is in use.

Lab Demonstration A lab simulation is performed at mid-term and at the end of the session. Lab demonstrations are performed by the student on a non-patient individual for evaluation and grading by the Clinical Coordinator according to level of performance.

Lab Simulation The initial part of the learning process in which radiographic projections are rehearsed on non-patient individuals in a non-energized setting.

Non-Patient Individual An individual who is not an actual patient, such as a fellow student or the Clinical Coordinator, on whom radiographic positioning and/or procedures are practiced or simulated by students.

Observe The act of a student watching a radiographer perform a radiographic procedure.

Pediatric Patient Unless otherwise defined, a patient who is 18 years of age or younger, in accordance with Heritage Valley Kennedy's School of Radiography policy.

Preliminary Comp Record An abbreviated term for the "Preliminary Radiographic Examination Record" that is initialed and dated by a qualified radiographer after the student has demonstrated preliminary competency of a radiographic procedure.

Preliminary Radiographic Examination Competency A radiographic procedure performed proficiently, satisfactorily, and nearly independently by the student, as determined by the attending radiographer. Preliminary comps are required before a student can formally test for competency.

Preliminary Radiographic Examination Competency Record The log sheet that is initialed and dated by a radiographer after the student has demonstrated preliminary competency of a radiographic procedure. This record may also be referred to as the Preliminary Comp Record.

Qualified Radiographer A radiologic technologist who is employed by Heritage Valley Health System and who has active and good standing registration in radiography with the ARRT.

Radiographer A registered radiologic technologist who is certified by the ARRT.

Radiographic Examination Competency A radiographic procedure performed by a student in which competency, according to criteria on the Radiographic Examination Competency Form via Trajecsys, is satisfied with a score of 85 percent or higher as determined by an attending qualified radiographer.

Radiographic Examination Competency Form The electronic form used by a qualified radiographer or the Clinical Preceptor to evaluate a student's clinical performance and resultant radiographs while testing for competency.

Radiographic Procedure/Study/Examination A diagnostic imaging procedure that may or may not result in radiographs and that complies with the policies and procedures of Heritage Valley Kennedy's Department of Radiology.

Repeat Radiograph Log A form used by students to document having direct supervision from a qualified radiographer for each repeat radiograph.

Session One clinical educational period for students in the radiography program. Sessions may be a 15 week educational period equivalent to a University semester, or may be a shorter educational period.

Terminal Competency A formal test performed by a student and evaluated by the Clinical Preceptor that demonstrates student retention of knowledge of randomly selected radiographic procedures previously learned in a classroom setting. Terminal Competency testing occurs during the last three months of the program.

Tracking Sheet An abbreviated form that is filled out by the student and initialed by the attending radiographer that states that the student has submitted a clinical assignment to the radiographer for completion, evaluation, and/or grading. Tracking sheets serve to protect the student from penalization in the event that the attending radiographer fails to submit the assignment. A tracking sheet can be submitted by the student to the Clinical Coordinator in lieu of a clinical assignment. The Clinical Coordinator will then follow up with the radiographer.

CLINICAL EDUCATION

Session Requirements

Each session students are given written examinations and assignments. These requirements are outlined in the Program Requirements section of this handbook as well as on each session syllabus. Students are also required to perform a specified number of Preliminary Competencies and Radiographic Exam Competencies per session. These examinations are performed with either direct or indirect supervision, as determined by individual student level of competency.

Depending on the particular HSCU course, students may also be required to perform Lab Demonstration testing. Additionally, students are graded on their professional conduct each session.

Clinical Education Labs

Clinical education labs are designed to enable the student to do the following:

1. Learn proper use of radiographic equipment
2. Learn and practice correct radiographic positioning
4. Learn routine and non-routine radiographic projections and procedures
3. Learn the routine radiographic procedures specific to Heritage Valley Kennedy's Department of Radiology
5. Study sample radiographs to identify and critique anatomy, positioning, technique, and medical-legal aspects of radiography
6. Successfully pass written examinations as well as lab demonstration testing and radiographic examination competency testing
7. Practice sound radiation protection practices for self and patient
8. Practice sound patient care practices
9. Recognize and practice professional conduct

Clinical education labs are held two and a half hours per week within the classroom of the W. Laird Davis Educational School of Learning building at Heritage Valley Kennedy. Each session's syllabus lists the specific dates for scheduled labs.

During lab, students observe positioning demonstrations and simulate positioning on non patient individuals and phantoms. Lab simulations serve as a learning tool to develop the students' skills and facilitate their efforts in achieving competency in radiographic procedures.

Clinical Room Rotations

The Clinical Coordinator devises clinical room rotation schedules according to the clinical assignment plan found in this handbook. Students are assigned equivalent clinical room rotations.

Students are not to assume the responsibility nor serve as replacements for staff radiographers. The attending radiographer assumes responsibility and control at all times over any given clinical situation.

All requests of the student made by the radiographer must be radiologically relevant, educational, and in compliance with the radiography program's educational guidelines and policies.

Staff radiographers are informed of revisions in program policy that pertain to student clinical performance by written and oral communications from the Clinical Coordinator.

Variety of Radiographic Examinations

A sufficient variety and volume of radiographic examinations are available to provide a balanced clinical education and to enable students to satisfy all competency requirements established by the program, as well as all Core Clinical Competency Requirements set forth by the American Registry of Radiologic Technologists (ARRT).

Forty Hour Week

The maximum hours of clinical and academic involvement shall not exceed 40 hours per week. Clinical assignment schedules do not conflict with regularly scheduled didactic classes. The Program Director and the Clinical Coordinator coordinate the classroom and clinical schedule for every session during the program through informal faculty conferences. The Program Director and Coordinator of Health Science Programs at La Roche University coordinate and schedule courses of study so as not to exceed the 40 hour per week maximum. Also, a student is not permitted to exceed more than 10 clinical hours in any one day.

Diagnostically Acceptable Radiographs

All radiographs must be deemed diagnostically acceptable by a qualified radiographer or the Clinical Preceptor. Documentation of a qualified radiographer's acceptance of radiographs is made by including the student's initials and the radiographer's initials signed off by completion in the Centricity/RIS system.

Repeat Radiographs

Radiographs are deemed unsatisfactory and in need of repeat by a qualified radiographer or the Clinical Preceptor. All repeated radiographs performed by the student are to be made under direct supervision. The qualified radiographer must be present, consulted, and actively participate in the repeated exposure. This is required regardless of the level of student

competency.

Students are to document direct supervision of repeat radiographs by obtaining the initials of the attending qualified radiographer on the Repeat Radiograph Log sheet. These sheets are reviewed monthly by the Clinical Coordinator to ensure compliance with this policy. Please refer to Appendix A.

Student Supervision

While performing radiographic examinations in the Radiology Department, a student must be directly supervised by a radiographer or the Clinical Preceptor until competency has been formally demonstrated. Competency is formally demonstrated by attaining a score of 85 percent or higher on a Radiographic Examination Electronic Competency Form that has been completed and signed by a qualified radiographer or the Clinical Preceptor. Please refer to "Direct Supervision" under the Definition of Terms section in this handbook.

A student must be indirectly supervised by a radiographer or the Clinical Preceptor while performing radiographic examinations in the Radiology Department after competency has been established. Please refer to "Indirect Supervision" under the Definition of Terms section in this handbook. Students must be directly supervised at all times by a radiographer while performing emergent, operative, or portable radiography regardless of the level of student competency. All repeated radiographs performed by the student are to be made under the direct supervision of a qualified radiographer or the Clinical Preceptor. (Please refer to the Repeat Radiographs section of this handbook.)

Failure to Meet Clinical Requirements

Requirements for each clinical session are established by the Clinical Coordinator at the beginning of each session and are outlined in this handbook and in the course syllabus.

From HSCU 2006 on, half of all Radiographic Examination Competencies must be completed at the midterm of each semester. Failure to meet this deadline will result in a 5% deduction from the overall score of each competency for each day that it is late until half of all competencies are turned in.

Written requirements for each clinical session are assigned at the beginning of each session and are outlined in the grading section of this handbook as well as in the course syllabus. Failure to satisfy all written requirements will negatively impact the overall grade. Failure to obtain an averaged minimal score of 85 percent on the written assignments portion of the HSCU course will result in failure of the course and dismissal from the program. (Please refer to the Written Requirements section of this handbook.)

At the discretion of the Clinical Coordinator and based on individual student clinical performance, students who fail to meet all clinical requirements may be assigned a grade of a "F" and will be given a deadline by the Clinical Coordinator for which requirements must be met, in accordance with La Roche University grading policy. Students who fail to meet the requirements for the incomplete grade will receive a failing grade for the course. Students who fail to meet the clinical requirements for HSCU 2013 will receive a failing grade for that session.

External Rotations

Throughout the duration of the 24 month program, external clinical rotations may be provided to radiography students to enrich their clinical education. The availability of external rotations depends heavily on the hosting institutions and may therefore fluctuate.

Institutions that host external clinical rotations do not charge fees for clinical rotations, but rather, grant such privileges as professional courtesies. Such opportunities serve to enrich the student's education by exposing him/her to administrative and procedural protocols practiced by other institutions as well as to expose the student to the diversity of organizational cultures.

External clinical rotations are strictly observational and usually consist of between one to three clinical days. Students are supervised by a designated contact person. Students are evaluated by the attending technologist using the External Rotation Student Evaluation Form (please refer to Appendix B). Items on this form evaluate the students on the following criteria:

1. Demonstration of professionalism, courtesy, and promptness
2. Adherence to the prescribed hours scheduled at the institution
3. Demonstration of interest and learning
4. Adherence to room rotations, unless altered by contact person
5. Appropriate and professional behavior

Input is also obtained from students regarding the usefulness of the rotation in their clinical education using the External Rotation Evaluation. Students are also required to submit a worksheet on organizational culture worth 5 points. Also students are to turn in an objective sign off sheet. Please refer to Appendix C.

At the discretion of the hosting institution, students may be asked to leave an external rotation site at any time due to inappropriate behavior. Should this occur, the contact person at the hosting institution will immediately notify either the Program Director or the Clinical Coordinator at Heritage Valley Kennedy. As a result of their inappropriate behavior, the offending student will have forfeited the opportunity to attend any clinical site for the period of time of the external clinical rotation, but will be required to make up the missed clinical time at Heritage Valley Kennedy on dates and times established by the Clinical Coordinator. Furthermore, the offending student will not be permitted to submit assignments associated with the external clinical rotation and will therefore forfeit all related points. If the incident warrants a disciplinary action then Heritage Valley Kennedy School of Radiography will evaluate the incident and follow by the policy and procedure handbook regarding the discipline. All policies and procedures of Heritage Valley Kennedy School of Radiography must be abided by when a student is on an external rotation or disciplinary action will occur and or possible dismissal will result.

Students are informed of required participation in potential external clinical rotations before acceptance into the program. Students are again notified of external rotation assignments at the start of the semester in which the assignment is given. Students are required to provide their own transportation to the external sites as well as to incur any associated expenses such as parking

and lunch.

Professional Societies and Seminars

Student attendance at professionally sponsored seminars and conferences is promoted. Students are encouraged to hold institutionally approved fund raisers to defer costs of seminars and conferences. Students are also encouraged to join local professional societies related to the radiologic sciences and to attend their educational functions.

Clinical Sites

Heritage Valley Kennedy School of Radiography utilizes the following five clinical sites for clinical education:

Main Campus: Heritage Valley Kennedy
25 Heckel Road
McKees Rocks, PA 15136
412-777-6161

Heritage Valley Aliquippa
2719 Brodhead Road, Suite 190
Aliquippa, PA 15001
724-419-9200

Heritage Valley Center Township
79 Wagner Road, Suite 102
Monaca, PA 15061
1-878-439-3600

Heritage Valley Edgeworth
100 Hazel Lane
Sewickley, PA 15143
412-749-6817

Heritage Valley Robinson
2201 Park Manor Blvd.
Pittsburgh, PA 15205
412-749-6922

GRADING SYSTEM FOR CLINICAL (HSCU) COURSES

Grade Components

The clinical grade is based on four components, each worth 25 percent of the final grade, unless otherwise noted in this handbook and in the course syllabus. These components are as follows:

1) Electronic Examinations
2) Preliminary Radiographic Examination Competencies and Radiographic Examination Competencies
3) Lab Demonstrations, Electronic Clinical Assignments
4) Professional Adjustment Evaluation

Specific requirements for each of the above components are outlined in each course syllabus. Occasionally, a course will not require Lab Demonstrations (as in HSCU 2010, HSCU 2012, and HSCU 2013). In such cases, twenty-five percent of the clinical grade will be based on electronic tests and or Film Project, twenty-five percent will be based on Final Comprehensive Examination, twenty-five of the clinical grade will be based on Competencies, and twenty-five percent will be based on Professional Adjustment.

Additional clinical requirements, such as Terminal Competencies, may occur throughout the 24 month program and are detailed below.

Electronic Examinations

Written requirements consist of electronic examinations, certain semester Clinical Critical Thinking Assignments. Each course syllabus details when the clinical critical thinking assignments are required and how many points they are worth. Clinical Critical Thinking Assignments and Electronic Examinations will follow the didactic grading scale as follows:

Didactic Grading Scale

100 - 94	A
93 - 91	A-
90 - 88	B+
87 - 84	B
83 - 80	B-
79 - 76	C+
75	C
74 - 0	F

The average of all electronic examinations and possible clinical critical thinking assignments that are administered in a session must result in a passing grade (75 percent or higher). Failure to do so will result in a failing grade for the semester and dismissal from the program.

Explanations for electronic assignment requirements are as follows:

Electronic Classroom Assignments. All courses beside HSCU 2012 and HSCU 2013 will consist of electronic clinical assignments that have a posted due date via Canvas.

Room Objectives. Room Objectives are assigned to students each session from HSCU 2002 through HSCU 2008. Room Objectives serve to provide documentation that students demonstrate proficiency in the basic and unique operating components of each radiographic room in Heritage Valley Kennedy's Department of Radiology. All Room Objective sheets are posted on Trajecsys and available to the students during clinical sessions.

Room Objectives are to be completed and signed via electronically by the attending radiographer at the completion of the corresponding room rotation. It is solely the responsibility of the student to ask the attending technologist to complete the Room Objective form via Trajecsys.

Room Objectives must be submitted to the Clinical Coordinator by the first clinical day of the week that follows the rotation. It is the student's responsibility to be aware of vacation days or holidays and to submit their Room Objectives as required. A tracking sheet that has been initialed by the attending radiographer stating that the student has submitted their Room Objectives to the radiographer may be submitted to the Clinical Coordinator if the attending radiographer does not immediately return the Room Objectives to the student. Students who submit an initialed tracking sheet (on time) in lieu of the Room Objective will not be penalized for late submission of the assignment. Tracking sheets are kept in a binder within the radiology department glass block room for student accessibility. Please refer to Appendix D.

Room Objective sheets that have any objective marked with a "no" are considered incomplete and must be successfully completed and returned to the Clinical Coordinator within one week of the original due date. The Clinical Coordinator will review the criteria to obtain a "yes" and when student is competent the Clinical Coordinator will assign the grade. It is the student's responsibility to have the Room Objectives successfully completed and turned in by the assigned due date. A total of two points may be granted for each Room Objective sheet according to the following criteria:

1 point	-	Successful Completion
1 point	-	Submitted on Time

It is the responsibility of the student to inform the Clinical Coordinator in the event that a learning opportunity did not occur during a room rotation that would impede the completion of the Room Objectives for that room (e.g. - no scheduled procedures). The Clinical Coordinator will consult with the attending radiographer and then make arrangements with the student for completion of the Room Objectives on a future date. Failure to comply with the aforementioned guidelines will result in loss of points. No exceptions will be made.

Exam Observed Worksheets-electronic clinical assignments. Exam Observed Worksheets serve to reinforce and enhance cognitive learning of certain radiographic procedures. A various number of Exam Observed Worksheets are assigned to students in each clinical session. Specific requirements for Exam Observed Worksheets are outlined in each course syllabus. Exam Observed Worksheets are to be completed during corresponding room rotations and the due date

is posted via Canvas.

The following grading method will apply to Exam Observed Worksheets.

2 points	-	Submitted on time
7 points	-	Content
1 points	-	Demographics (patient name, age, exam type, etc.)

One point will be deducted for each day that an Exam Observed Worksheet is submitted late. After all two points for timeliness are lost, the worksheet will not be accepted and all points for that particular worksheet will be forfeited by the student.

Specialized Exam Observed Worksheets exist for certain examinations and serve to assist the student in gaining a more thorough understanding of a particular radiographic procedure. Specialized Exam Observed Worksheets are to be used by students for their electronic assignment if such a worksheet exists. Failure to use the specialized electronic Exam Observed Worksheet will result in forfeiture of all points for that specific assignment.

Students should consult with the Clinical Coordinator if a learning opportunity did not occur in which an Exam Observed worksheet could be completed (e.g. - no radiographic or procedures scheduled). The Clinical Coordinator will consult with the attending radiographer and then make arrangements with the student for completion of the Exam Observed Worksheet during a future corresponding rotation. Although unlikely, if after the final rotation through the corresponding clinical area still does not provide a learning opportunity for which a worksheet can be completed, the student should again consult with the Clinical Coordinator. The Clinical Coordinator will then assign the student a specific Exam Observed Worksheet that is appropriate and that will enrich the student's clinical learning experience. It is the student's responsibility to consult with the Clinical Coordinator regarding these matters. Failure to comply with the aforementioned guidelines will result in loss of points. No exceptions will be made.

Clinical Critical Thinking Assignments. Clinical Critical Thinking Assignments serve to heighten the student's ability to adequately recognize and respond to variation in patient condition/ability so as to consistently produce quality radiograph in non-routine situations. Clinical Critical Thinking Assignments give the student an opportunity for self-appraisal of clinical performance, progress, and skills.

Clinical Critical Thinking Assignments are required starting in HSCU 2006 and throughout HSCU 2008. The number of critical thinking assignments and their due dates are posted in the course syllabus. Each assignment is worth 16 points. The Clinical Critical Thinking Criteria grade sheet is used for grading. Please see Appendix E.

Critical thinking assignments will not be accepted after their due dates as listed in the course syllabus.

Other written assignments. Occasionally, other written assignments such as radiographic film

critique projects may be required and are detailed in each course syllabus.

Examination Competencies, Exam Simulations, and Lab Demonstrations

Radiographic Examination Competencies, Exam Simulations, and Lab Demonstrations and Room Objectives, Exam Observed Work Sheets, occasional random written assignment will follow the clinical grading scale as follows:

Clinical Grading Scale	
100 - 98	A
97 - 96	A-
95 - 94	B+
93 - 91	B
90 - 87	B-
86	C+
85	C
84 & Below	F

Preliminary Radiographic Examination Competencies

As part of the Clinical Competency process, students are required to perform a specified number of Preliminary Radiographic Examination Competencies for every radiographic procedure on which they will eventually be tested. The required number of preliminary competencies must be obtained before the student is permitted to formally test for competency.

A Preliminary Radiographic Examination Competency Record is assigned to every student at the beginning of the program. The number of required preliminary competencies for each radiographic exam is listed on this record. When a student performs a radiographic examination proficiently, satisfactorily, and nearly independently, based on the discretion of the attending radiographer, the radiographer will initial and date the corresponding preliminary competency requirement. Please refer to Appendix F.

Students may obtain preliminary competency before receiving formal didactic (classroom/lab) instruction on a radiographic procedure. However, students may not be formally tested for competency on any radiographic procedure before receiving formal didactic instruction. If all preliminary requirements are met for a specific radiographic procedure, and if the student has formally learned the procedure in the classroom/lab setting, the student may then formally test on the procedure to prove competency. Any Radiographic Examination Competency Form completed for an examination for which the procedure has not been formally taught will be discarded by the Clinical Coordinator.

Evidence of having met all preliminary requirements for a specific radiographic procedure can be proven by the student to the attending qualified radiographer by showing the Preliminary Radiographic Examination Competency Record before testing for competency. Radiographic examinations for which all preliminary requirements have been satisfied will contain the initials of the attending radiographers in the appropriate corresponding slots. Students who do not have this record will not be permitted to be tested for competency. It is the responsibility of the student to keep track of their Preliminary Radiographic Examination Competency Record. Loss

of this record may require the student to repeat Preliminary Examination Competencies, as well as Radiographic Examination Competencies and could be detrimental to successful completion of the program.

A number of Preliminary Competencies are required each semester and are detailed in both the Clinical Handbook and the course syllabus. The number of Preliminary Competencies obtained may affect the overall Radiographic Examination Competency grade which comprises 25 percent of the overall course grade. If all Preliminary Competencies are obtained for the session, the overall competency grade will not be affected.

Conversely, if the student has not obtained the required number of preliminary competencies for the session, the competency overall grade, calculated by the average of all Radiographic Examination Competencies required for that session, will be lowered one-half percentage point for a maximum deduction of ten percentage points.

Preliminary competencies on optional radiographic examinations, as listed on the Optional Radiographic Preliminary Competency Record, serve to encourage students to enhance their clinical skills by taking advantage of unusual learning opportunities. Optional Radiographic Preliminary Competencies may also raise the competency grade in the same manner as required Radiographic Preliminary Competencies but will not be used to fulfill session preliminary comp requirements. Credit for Optional Radiographic Preliminary Competencies will be granted only after the grade for required Radiographic Preliminary Competencies has been calculated. Please refer to Appendix G.

An exception to the requirement of preliminary radiographic examination competencies is made for pediatric competencies. Because of the limited number of pediatric examinations performed at Heritage Valley Kennedy, students are not required to obtain preliminary radiographic examination competencies before testing for competency on pediatric patients. Students must, however, have the required number of preliminary radiographic examination competencies for the corresponding examination from the adult patient category (i.e. - a student wishing to test for competency for a pediatric AP abdomen exam must have all preliminary radiographic examination competencies satisfied in the adult AP abdomen exam category).

Radiographic Examination Competencies

In order to establish eligibility for participation in the ARRT Radiography Examination, students are required to demonstrate competency in specific radiographic examinations, as defined by the ARRT's *Radiography Clinical Competency Requirements*. A master record of Core Clinical Competencies is kept for each student on Trajecsys within each student's private electronic file held only by the Clinical Coordinator. At the end of each session, students are counseled on their progress in achieving the required number of Core Clinical Competencies. Also a copy of the Core Clinical Competency record is available via Trajecsys.

To provide a clinical educational experience beyond the ARRT's core requirements, the School of Radiography has added additional optional competencies the student can perform to achieve the amount of competencies needed per semester. Students who graduate from the program are required to show competency in a total of 52 radiographic examinations.

Additionally, so as to encourage an even broader clinical mastery of radiography, students may test for competency in any of several Optional Radiographic Examination Competencies. The required competencies for the program as well as the optional competencies are listed on the Preliminary Radiographic Examination Competency Record and the Optional Preliminary Radiographic Examination Competency Record. Please refer to Appendices F and G for a list of all Optional Radiographic Examination Competencies. Please also refer to the Optional Radiographic Examination Competencies section of this handbook.

Testing for competency. The required number of Radiographic Examination Competencies for each clinical session is detailed in this handbook and in the course syllabus. As stated earlier, a primary goal of the clinical competency process is for each student to meet and exceed the requirements for the ARRT's Core Clinical Competencies.

All Preliminary Radiographic Competency Requirements must be met and the student must have received didactic instruction for each radiographic procedure on which they choose to be formally tested for competency.

The student must receive a score of 85 percent or better when testing for competency. After proving competency, the student must perform the radiographic examination under indirect supervision. **However, all repeat radiographs must be taken under the direct supervision of a registered technologist, regardless of the level of student competency.**

Radiographic Examination Competencies receiving a score of less than 85 percent will not count toward the session's requirements, but will be averaged into the overall Radiographic Examination Competency score. Criteria for testing for competency are listed on the Radiographic Examination Competency Form. Please refer to Appendix H.

A student wishing to test for competency must inform the attending qualified radiographer BEFORE performing any part of the procedure. The qualified radiographer must directly supervise the student during the comp. Students who do not abide by this policy will forfeit the comp and will be subject to formal disciplinary action in accordance with program policy.

Once a student has expressed the desire to perform a competency on a radiographic procedure, they must follow through with the competency and may not change their mind. The competency must be completed and submitted by the attending qualified radiographer. Failure to follow this policy will result in formal disciplinary action in accordance with Program policy.

Radiographic Examination Competency Forms.
All Radiographic Examination Competency Forms are kept on Trajecsys.

The attending qualified radiographer must complete the first two sections of the comp form entitled, "Preliminary Measures" and "Performance Evaluation". The radiographer then electronically signs the bottom of the evaluation form and sends the form via the completed forms folder where the clinical coordinator will then move the uncompleted competency into the student's designated folder.

Prompt submission of comp forms. The student is entitled to prompt completion and submission of their comp form by the attending qualified radiographer. Tracking sheets may be used by students for proof that a comp form was submitted to a qualified radiographer. (Please refer to "tracking form" under the Definition of Terms section in this handbook.) Students who do not have prompt submission of a comp form by the attending qualified radiographer should first attempt to consult with the radiographer about the comp form. If the form is not promptly submitted by the radiographer after initial inquisition by the student, the student should then consult with the Clinical Coordinator regarding this matter. The Clinical Coordinator will act on behalf of the student for prompt submission of the comp form.

The Clinical Coordinator is responsible for checking the completed files folder within the Trajecsys and will frequently move uncompleted competencies to the student's folder. After receiving the comp, the Clinical Coordinator will tally all points awarded by the attending qualified radiographer. Then the Clinical Coordinator will review the competency regarding the Image Evaluation section and pathology with the student to obtain a grade.

Discarding comp forms. Any student who tries to discards a competency form at any time and for any reason and discards it electronically via Trajecsys will automatically receive a grade of zero for the comp and will receive formal disciplinary action in accordance with program policy.

Terminal Competencies

A terminal competency is a radiographic procedural test which serves to demonstrate ongoing proficiency in and knowledge of previously learned radiographic procedures. A score of 85 percent or higher must be obtained on each terminal competency.

Terminal competency testing is performed during the last three months of the program. Terminal competency evaluation is evaluated by the Clinical Preceptor or a registered technologist using a Terminal Radiographic Examination Competency form.

Students are required to successfully obtain ten terminal competencies; half of which are chosen by the student, and the other half of which are chosen by the Clinical Coordinator. Selection of terminal competencies is based on student clinical needs and weaknesses.

Terminal competencies may not be simulated. The terminal competency grade is included in the HSCU 2013 grade.

Lab Demonstrations

Lab demonstration testing during the course of any semester is conducted at mid-term and final term periods.

Each radiographic examination performed for Lab Demonstrations should receive a minimum grade of 85 percent. If this is not achieved, all projections within each examination will be averaged together to get an overall grade of 85% for the examination. If a passing grade is not obtained overall for the three particular examinations then the student will be dismissed, no exceptions will be made. A maximum of three attempts is only permitted and the students overall score on three attempts must average to an 85% (Clinical Grading scale). If a passing

grade of 85 percent or higher is not obtained after three attempts, the student will receive a failing grade for the entire HSCU course and will be dismissed from the program. Repeat lab demonstrations cannot take place on the same clinical day. The overall grade for a lab demonstration requiring repeats is calculated by averaging all attempts for a single examination.

During Lab demonstration testing, students are required to know the routine projections at Heritage Valley Kennedy for each examination being simulated. If a student performs a projection that is not part of the Heritage Valley routine, the student's final score for that examination will be dropped by 5 percentage points for each unnecessary projection done. Likewise, if a student neglects to simulate a projection that is part of the Heritage Valley routine, the student's score for the examination being simulated will also be dropped by 5 percentage points for each projection not done. Students are reminded that lab demonstrations constitute a formal testing environment and that any form of dishonesty (cheating) will result in immediate termination of testing and a failing grade for all lab demonstrations. A student who is testing and who receives any form of help (including verbal or non-verbal cues) from their student patient will be guilty of cheating and will receive a failing grade and will result in disciplinary action and possible dismissal from the program. In conjunction with the Professionalism Policy & Academic Integrity located in the Student Handbook, formal disciplinary action will also be taken against the students which could include immediate dismissal from the program.

After each lab demonstration examination has been performed successfully with an overall grade of 85 percent or higher, the grades from each examination will be averaged and will result in the overall mid-term or final lab demonstration grade.

All Lab Demonstrations may be used to help fulfill Preliminary Radiographic Examination Competency requirements, if necessary. Lab Demonstration exams are drawn randomly by the student.

Student Absence on Test Days (Written and/or Clinical)

All test dates are posted in the course syllabus. Changes to test dates are announced in advance by the Clinical Coordinator. It is the responsibility of a student who is absent on a test day to make alternate arrangements for testing with the Clinical Coordinator. Failure to do so upon immediate return from absentia will result in the student forfeiting all possible points from the missed test.

Professional Adjustment

The Professional Adjustment serves to evaluate the professional conduct of the student while in the clinical setting. Professional Adjustment evaluation is completed by the Clinical Coordinator with collaborative feedback from Clinical Preceptors. The grading scale, as well as criteria for the Professional Adjustment grade, is found on the Professional Adjustment evaluation form. Please see Appendix K.

Technologist Evaluation of Student

Throughout the course of each session, each student’s clinical performances are evaluated by a staff technologist. One evaluations will be obtained each semester (please refer to the Clinical Room Assignments/Semester Requirements section of the handbook) from differing

technologists with whom the student had recently worked. Although students are not graded on this evaluation, they are required to review the completed form. Students are advised regarding any clinical performance problems identified by the technologist. The evaluation is kept in the student's clinical file. Please see Appendix L.

Final Clinical Grade

Clinical grades will be submitted to the Program Director and to La Roche University as a letter grade at the end of each session.

CLINICAL ROOM ASSIGNMENT PLAN

Session:	**HSCU 2002**	**HSCU 2004**	**HSCU 2006**	**HSCU 2008**	**HSCU 2010**	**HSCU 2012**	**HSCU 2013**
# Weeks/Session:	15	15	12	15	15	10	15
Fluoroscopy (12)	X	XX	X	XX	XX	X	X
General Radiography D Room (10)	X	X	X	X	X	X	X
E Room	X	X	X	X	X	X	X
ER (12)	XX	X	XX	XX	X	X	X
Portable/OR (11)	X	X	X	XX	XX	X	X
Specials (7)	X	X	X	X	XX		
Nuclear Medicine (1)		X					
Cardiac Cath Lab (1)					X		
MRI (1)			X				
CT (1)				X			
US (1)				X			
External Rotations - AGH (2)		X			X		
After Hours Rotation: 1 pm– 9 pm			X	X	X		
Heritage Valley Center Township*	XX	XX	X	X	X		X
Heritage Valley Edgeworth*	XX	XX	X	X	X		X
Heritage Valley Aliquippa	XX	XX	X	X	X	X	
Heritage Valley Robinson	XX	XX	X	X	X	X	
Reading Room (1)							X
Front Office (1)	X						
File Room (1)	X						

"X" denotes a one week assignment.

“*” denotes that the clinical site is utilized on an alternating basis, used in specific semesters determined by site availability.
Each radiography student is assigned to the areas shown during the educational period according to the above grid plan. The Clinical Coordinator has the discretion to alter a room assignment, should there be no scheduled examinations in the originally assigned room.

DESCRIPTION OF RADIOGRAPHIC EQUIPMENT IN THE CLINICAL SETTING

HERITAGE VALLEY KENNEDY

C ROOM This room contains a GE radiographic/fluoroscopic unit with GE software: Inimed System and an i5 Platform Digital Imaging system 600 MA, 140 KV generator, a 90-90 table and a ceiling tube mount tube.

D ROOM This room contains a Konica Minolta AeroDR Direct Digitizer Radiographic system with auto positioning. It includes a table with float top and vertical adjustment, ceiling tube mount, and an upright wall bucky.

E ROOM This room contains a GE Definium 8000 computerized radiographic unit, with an upright Bucky, ceiling tube mount, auto positioning, and a table with a float top.

ER ROOM This room contains a Konica Minolta SR#G-80235 radiographic system with DR detector. It includes upright bucky, ceiling tub mount, and a moveable float top table.

SPECIALS The room has a Phillips C-Arm with a Morgan medical radiolucent table.

CT ROOM This room contains an Optima 64-slice detector and a Med Rad Envision automatic injector.

MRI This mobile unit is owned by Heritage Valley Kennedy and contains a 1.5 tesla GE High-speed MRI magnet.

ULTRA-SOUND Ultrasound utilizes three Logiq E10 units with OB/GYN, vascular, abdomen, small parts, and color capabilities, also one Parks Flo-Lab Arterial Doppler X-tra view and one Logic –10 notebook portable machine.

NUCLEAR The Nuclear Medicine Department contains one Forte Camera, a Single Head Genesys Camera, and an Uptake Probe for thyroid studies.

CARDIAC CATH LAB This room contains a Siemen's Angiostar Plus Imaging System used for cardiac and peripheral catheterization.

OR The operating room contains one GE **9800 OEC** Diasonics mobile c-arm with 8 frames per second, dual monitor and digital subtraction, cineradiography, two levels of magnification and road mapping. Also one GE **9900 OEC** mobile c-arm of 8 to 15 frames per second, digital subtraction, cineradiography, magnification, road mapping. Also includes a Phillips c-arm with dual monitors.

CYSTO This room contains an i5 Nexus DFR system with a LF Direct Digital Urological Table, including dual monitors, and control options for table position, image chain, magnification and exposure.

DEXA This room contains a Hologic Dexascan table and software.

MOBILE UNITS One GE AMX II 300 mAs, 110 kVp.
One Shimadzu Mobile DaRt Evolution portable system.

HERITAGE VALLEY ALIQUIPPA

This clinical site contains a Shimadzu Radspeed X-Ray System, Console # GSC-2002L with a wireless Canon Panel, Model #CXDI-710C. This automatic system supports quick positioning and workflow, incorporating a DR system with the auto-positioning feature. This system also supports auto stitching to allow for wide-range images along the body axis instantly. The wireless Canon Panel has a reduced weight, waterproofing, and utilizes on-board memory and enhanced detector design to ensure the best performance in sensitivity, image quality, and versatility.

HERITAGE VALLEY CENTER TOWNSHIP

This clinical site contains a Shimadzu Radspeed X-Ray System, Console # GSC-2002L with a wireless Canon Panel, Model #CXDI-710C. This automatic system supports quick positioning and workflow, incorporating a DR system with the auto-positioning feature. This system also supports auto stitching to allow for wide-range images along the body axis instantly. The wireless Canon Panel has a reduced weight, waterproofing, and utilizes on-board memory and enhanced detector design to ensure the best performance in sensitivity, image quality, and versatility.

HERITAGE VALLEY EDGEWORTH

This clinical site contains a Shimadzu Radspeed X-Ray System, Console # GSC-2002L with a wireless Canon Panel, Model #CXDI-710C. This automatic system supports quick positioning and workflow, incorporating a DR system with the auto-positioning feature. This system also supports auto stitching to allow for wide-range images along the body axis instantly. The wireless Canon Panel has a reduced weight, waterproofing, and utilizes on-board memory and enhanced detector design to ensure the best performance in sensitivity, image quality, and versatility.

HERITAGE VALLEY ROBINSON

This clinical site contains a Shimadzu Radspeed X-Ray System, Console # GSC-2002L with a wireless Canon Panel, Model #CXDI-710C. This automatic system supports quick positioning

and workflow, incorporating a DR system with the auto-positioning feature. This system also supports auto stitching to allow for wide-range images along the body axis instantly. The wireless Canon Panel has a reduced weight, waterproofing, and utilizes on-board memory and enhanced detector design to ensure the best performance in sensitivity, image quality, and versatility.

CLINICAL COURSE DESCRIPTIONS

HSCU 2002 (2 credits)
An orientation of all program policies and radiographic equipment in the Department of Radiology is provided along with indirect or direct supervision of students in clinical room rotations through diagnostic and fluoroscopic radiography, according to the level of individual student competency. Students are directly supervised in specialized, emergent, and portable/operative radiography. Students also rotate through other facets of the Radiology Department including the front office and the file room. Lab Demonstrations consist of examinations of the upper and lower extremities. Preliminary Radiographic Examination Competencies and Radiographic Examination Competencies are required. Written examinations and clinical assignments are required. Professional adjustment is evaluated. One evaluation of the student by an attending qualified radiographer is required.

HSCU 2004 (2 credits)
Students are assigned weekly clinical room rotations under indirect or direct supervision through diagnostic and fluoroscopic radiography, according to the level of individual student competency. Students are directly supervised in specialized, emergent, and portable/operative radiography, as well as in Nuclear Medicine and a possible external rotation. Application of radiographic technique, positioning, and protection is emphasized. Lab Demonstrations consist of examinations of the chest, abdomen, bony thorax, and shoulder girdle. Preliminary Radiographic Examination Competencies and Radiographic Examination Competencies are required. Written examinations and clinical assignments are required. Professional adjustment is evaluated. One evaluations of the student by an attending qualified radiographer are required, as well as one evaluation from the Nuclear Medicine rotation.

HSCU 2006 (2 credits)
Students are assigned weekly clinical room rotations under indirect or direct supervision through diagnostic and fluoroscopic radiography, according to the level of individual student competency. Students are directly supervised in specialized, emergent, and portable/operative radiography, as well as in MRI. Application of radiographic technique, positioning, and protection is emphasized. Lab Demonstrations focus on examinations of pelvic girdle, hip, and spine. Preliminary Radiographic Examination Competencies and Radiographic Examination Competencies are required. Written examinations and clinical assignments are required. Professional adjustment is evaluated. One evaluations of the student by an attending qualified radiographer are required, as well as one evaluation from the MRI rotation.

HSCU 2008 (2 credits)
Students are assigned weekly clinical room rotations under indirect or direct supervision through diagnostic and fluoroscopic radiography, according to the level of individual student competency. Students are directly supervised in specialized, emergent, and portable/operative radiography, as well as in CT and Ultrasound. Application of radiographic technique, positioning, and protection is emphasized. Lab Demonstrations focus on examinations of skull and paranasal sinuses. Preliminary Radiographic Examination Competencies and Radiographic Examination Competencies are required. Written examinations and clinical assignments are required. Professional adjustment is evaluated. One evaluations of the student by an attending

qualified radiographer are required, as well as one evaluation from the CT rotation and one from the Ultrasound rotation.

HSCU 2010 (2 credits)
Students are assigned weekly clinical room rotations under indirect or direct supervision in diagnostic and fluoroscopic radiography, according to the level of individual student competency. Students are directly supervised for rotations through specialized, emergent, and portable/operative radiography, as well as through the Cardiac Catheterization Lab. Application of radiographic technique, positioning, and protection is emphasized. Didactic instruction focuses on radiography of the digestive, urinary, hepatobiliary, and respiratory systems, as well as the soft tissues of the neck. Preliminary Radiographic Examination Competencies and Radiographic Examination Competencies are required. Terminal Competency testing begins. Formal film critique is presented. Written examinations and clinical assignments are required. Professional adjustment is evaluated. One evaluations of the student by an attending qualified radiographer are required, as well as one evaluation from the Cath Lab rotation.

HSCU 2012 (2 credits)
Students are assigned weekly clinical room rotations under indirect supervision through diagnostic and fluoroscopic radiography. Students are directly supervised for rotations through specialized, emergent, and portable/operative radiography. Students also rotate through the reading room. Application of radiographic technique, positioning, and protection is emphasized. Didactic instruction focuses on radiography of the endocrine, circulatory, nervous, and reproductive systems, as well as on arthrography. Preliminary Radiographic Examination Competencies and Radiographic Examination Competencies are required. Terminal Competency testing continues. Written examinations and clinical assignments are required. Professional adjustment is evaluated. One evaluations of the student by an attending qualified radiographer are required.

HSCU 2013 (2 credits)
Students are assigned weekly clinical room rotations under indirect supervision through diagnostic and fluoroscopic radiography. Students are directly supervised for rotations through specialized, emergent, and portable/operative radiography. Application of radiographic technique, positioning, and Radiographic protection is emphasized. Preliminary Radiographic Examination Competencies and Radiographic Examination Competencies are required. Terminal Competency testing is completed. Written examinations are required. Intensive formal review is offered. One evaluations of the student by an attending qualified radiographer are required. This course is taught jointly between the Program Director and the Clinical Coordinator. Students will receive only one grade for this combined course.

CLINICAL ROOM ASSIGNMENTS/SEMESTER REQUIREMENTS

TERM	ROOM
HSCU 2002	Orientation (1 rotation) Fluoroscopy (2 rotations) D Room (1 rotation) ER (2 rotations) Portable/OR (1 rotation) Specials (1 rotation) Front Office (1 rotation) File Room (1 rotation) Heritage Valley Center Township/Edgeworth (2 rotations) Heritage Valley Aliquippa (2 rotations) Heritage Valley Robinson (2 rotations)

Requirements

-Complete Radiology Department orientation check sheets
-Complete Room Objectives for each assigned area
-Complete UGI Exam Observed Clinical worksheet
-Midterm & Final written examination
-2 Lab Demonstrations
-Professional Adjustment
-2 Radiographic Competencies
-10 Preliminary Radiographic Exam Competemcies
-1 Technologist Evaluation of student

* A rotation consists of one clinical week

Final Grade composed of:

25% Electronic Examinations
25% Exam Competencies
25% Lab Demonstrations and Electronic Clinical Assignments
25% Professional Adjustment

TERM	ROOM
HSCU 2004	Fluoroscopy (2 rotations) D Room (1 rotation) ER (2 rotations) Portable/OR (1 rotation) Specials (1 rotation) Nuclear Medicine (1 rotation) AHN Allegheny General Hospital Radiation Oncology (1 rotation) Heritage Valley Center Township/Edgeworth (2 rotations) Heritage Valley Aliquippa (2 rotations) Heritage Valley Robinson (2 rotations)

Requirements

-Complete room objectives for each assigned area
-Complete Small Bowel and Special Procedures exam observed form
-External Rotation Worksheets
-Midterm & Comprehensive Final written examinations
-2 Lab Demonstrations
-25 Preliminary radiographic exam competencies
-10 Radiographic exam competencies
-Nuclear Medicine evaluation of student
-1 Technologist evaluations of students

*A rotation consists of one clinical week

Final Grade composed of:

25% Electronic Examinations
25% Exam Competencies
25% Lab Demonstrations and Electronic Clinical Assignments
25% Professional Adjustment

TERM	**ROOM**
HSCU 2006	Fluoroscopy (2 rotations) D Room (1 rotation) ER (2 rotations) Portable/OR (1 rotation) Specials (1 rotation) MRI (1 rotation) After-Hours Rotation: 1 pm– 9 pm (1 rotation) Heritage Valley Center Township/Edgeworth (1 rotation) Heritage Valley Aliquippa (1 rotation) Heritage Valley Robinson (1 rotation)

Requirements

-Complete room objectives for each assigned area
-Complete Barium Enema clinical worksheet
-Midterm & Comprehensive Final written examinations
-2 Lab Demonstrations
-Professional Adjustment
-15 Preliminary radiographic exam competencies
-10 Radiographic exam competencies
-MRI technologist evaluation of student and worksheet
-One to Two After-Hours rotation for the Emergency Room (1 pm - 9 pm), Also an evaluation form for after hour rotation
-1 Technologist evaluations of students
-1 Critical thinking assignment

*A rotation consists of one clinical week

Final Grade composed of:

25% Electronic Examinations
25% Exam Competencies
25% Lab Demonstrations and Electronic Clinical Assignments
25% Professional Adjustment

TERM	**ROOM**
HSCU 2008	Fluoroscopy (2 rotations) D Room (1 rotation) ER (2 rotations) Portable/OR (2 rotations) Specials (2 rotations) CT (1 rotation) Ultrasound (1 rotation) After-Hours Rotation: 1 pm– 9 pm (1 rotation) Heritage Valley Center Township/Edgeworth (1 rotation) Heritage Valley Aliquippa (1 rotation) Heritage Valley Robinson (1 rotation)

Requirements

-Complete Room objectives for each assigned area
-Complete CT and Ultrasound exam observed worksheet
-1 Clinical Critical Thinking Assignment
-Quizzes, Midterm & Comprehensive final written examination
-2 Lab Demonstrations
-Professional Adjustments
-20 Preliminary Radiographic Exam Competencies
-10 Radiographic Exam Competencies
-CT technologist evaluation of student and worksheet
-Ultrasound technologist evaluation of student and worksheet
-One to Two After-Hours rotation for the Emergency Room (1 pm - 9 pm) Also an evaluation form for after hour rotation
-One technologist evaluations of student
-AGH trauma External rotation worksheet & evaluation & external evaluation form of student
-Complete Esophogram exam observed sheet (must be typed)
-Complete Computed Radiography and Digital Radiography Evaluation Form

*A rotation consists of one clinical week

Final Grade composed of:

25% Electronic Examinations
25% Exam Competencies
25% Lab Demonstrations and Electronic Clinical Assignments
25% Professional Adjustment

TERM	**ROOM**
HSCU 2010	Fluoroscopy (2 rotations) D Room (1 rotation) ER (2 rotations) Portable/OR (2 rotations) Specials (2 rotations) Cath Lab (1 rotation) AHN Allegheny General Hospital Trauma Radiography (1 rotation) After-Hours Rotation: 1 pm– 9 pm (1 rotation) Heritage Valley Center Township/Edgeworth (1 rotation) Heritage Valley Aliquippa (1 rotation) Heritage Valley Robinson (1 rotation)

Requirements

-1 Cath Lab clinical worksheet and technologist check off sheet
-Film Critique Project
-Five written examinations (Digestive, Urinary, Hepatobiliary, Neck & Respiratory, Comprehensive Final Examination)
-Professional Adjustment
-15 Preliminary Radiographic Exam Competencies
-15 Radiographic Exam Competencies
-One to Two After-Hours rotation for the Emergency Room (1 pm - 9 pm)
-One technologist evaluations of student

*A rotation consists of one clinical week

Final Grade composed of:

25% Electronic Examinations
25% Film Critique Presentation
25% Electronic Clinical Assignments & Exam Competencies
25% Professional Adjustment

TERM	ROOM
HSCU 2012	Fluoroscopy (1 rotation) D Room (1 rotation) ER (1 rotation) Portable/OR (1 rotation) Heritage Valley Aliquippa (1 rotation) Heritage Valley Robinson (1 rotation)

Requirements

-5 written examinations (Endocrine, Circulatory, Nervous, Reproductive System & Comprehensive Final)
-Professional Adjustment
-Preliminary Radiographic Exam Comps as needed
-Radiographic Exam Comps as needed
-One technologist evaluation of student
-Terminal Competencies begin
-Final Lab Demonstrations

* A rotation consists of one clinical week

Final Grade composed of:

50% Electronic Examinations
25% Exam Competencies & Lab Demonstrations
25% Professional Adjustment

TERM	**ROOM**
HSCU 2013	Fluoroscopy (1 rotation) D Room (1 rotation) ER (1 rotation) Portable/OR (1 rotation) Reading Room (1 rotation) Heritage Valley Center Township/Edgeworth (1 rotation)

Requirements

-Reading Room Objective Form (continued)
-Completion of terminal competencies
-All preliminary radiographic exam competencies requirements met
-All radiographic exam comp requirements met
-All ARRT Core Clinical Competency requirements met
-One Technologists evaluation of student
-Terminal competency testing completed
-Reading Room Objective Form

*A rotation consists of one clinical week

Final Grade composed of:

75% Radiographic Registry Review Examinations
25% Terminal Competencies

HVK PEDIATRIC (18 YEARS AND UNDER) PROGRAM REQUIREMENTS

TERM	REQUIREMENTS
HSCU 2002 - HSCU 2013	1 chest, 1 AP abdomen

ARRT CORE CLINICAL COMPETENCY PEDIATRIC REQUIREMENTS (AGE 6 & UNDER)

TERM	REQUIREMENTS
HSCU 2002 – HSCU 2013	1 chest (mandatory), 1 extremity (elective), 1 AP Abdomen (elective)

**please refer to the Preliminary Radiographic Examination Competency Record in Appendix F*

ARRT RADIOGRAPHY CORE CLINICAL COMPETENCY REQUIREMENTS

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

- Ten mandatory general patient care activities;
- 37 mandatory imaging procedures;
- 15 elective imaging procedures selected from a list of 34 procedures;
- One of the 15 elective imaging procedures must be selected from the head section; and
- Two of the 15 elective imaging procedures must be selected from the fluoroscopy studies section, one of which must be either upper GI or contrast enema.

HSCU (CLINICAL) COURSE OUTLINES

HSCU 2002

Prerequisite: Acceptance into the HVK Radiography Program.
Clinical Education Labs focus on:

finger	toe	femur
hand	foot	patella
wrist	ankle	
forearm	os calcis	
elbow	lower leg	
humerus	knee	

- Routine and special projections will be taught for the above listed procedures.
- Room assignments will be scheduled on a weekly basis as specified in the Clinical Room Assignment Plan included in the Clinical Handbook. The student will receive either indirect or direct supervision for all procedures, according to the level of student competency. Students will be directly supervised at all time for emergent, specialized, operative, and portable radiography, regardless of the level of student competency.

HSCU 2004

Prerequisite: HSCU 2002 and HSCU 2001
Clinical Education Labs focus on:

chest	sterno-clavicular joints
abdomen	acromio-clavicular joints
shoulder	scapula
clavicle	ribs
sternum	

- Routine and special projections will be taught for the above listed procedures.
- Room assignments will be scheduled on a weekly basis as specified in the Clinical Room Assignment Plan included in the Clinical Handbook. The student will receive either indirect or direct supervision for all procedures, according to the level of student competency. Students will be directly supervised at all time for emergent, specialized, operative, and portable radiography, regardless of the level of student competency. Students will be directly supervised during all internal and external rotations.

HSCU 2006

Prerequisite: HSCU 2004 and HSCU 2003, Completion of Anatomy and Physiology I- no lower than a grade of a -"C" Grade
Clinical Education Labs focus on:

pelvis	coccyx
hip	lumbar spine
pubic bones	thoracic spine
sacrum	cervical spine
sacroiliac joints	

- Routine and special projections will be taught for the above listed procedures.

- Room assignments will be scheduled on a weekly basis as specified in the Clinical Room Assignment Plan included in the Clinical Handbook. The student will receive either indirect or direct supervision for all procedures, according to the level of student competency. Students will be directly supervised at all time for emergent, specialized, operative, and portable radiography, regardless of the level of student competency. Students will be directly supervised during all internal and external rotations.

HSCU 2008

Prerequisite: HSCU 2006 and HSCU 2005, Completion of Anatomy and Physiology II- no lower than a grade of a -"C" Grade

Clinical Education Labs focus on:

skull	sinuses
facial bones	orbits
zygomatic arches	salivary glands
mandible	mastoids
temporomandibular joint	nasal bones

- Routine and special projections will be taught for the above listed procedures.
- Room assignments will be scheduled on a weekly basis as specified in the Clinical Room Assignment Plan included in the Clinical Handbook. The student will receive either indirect or direct supervision for all procedures, according to the level of student competency. Students will be directly supervised at all time for emergent, specialized, operative, and portable radiography, regardless of the level of student competency. Students will be directly supervised during all internal and external rotations

HSCU 2010

Prerequisite: HSCU 2008 and HSCU 2007

Clinical Education focuses on radiographic procedures for the following body systems:

Gastrointestinal: BE, BE/AC, UGI, Esophogram, Small Bowel study & soft tissue neck
Urinary: Intravenous Urogram, Cystogram, Voiding Cystourethrogram
Hepatobiliary: Oral Cholecystogram, Intravenous Cholangiogram, Percutaneous Transhepatic Cholangiogram, Respiratory: Bronchograms

-Routine procedures and projections will be taught for the above listed examinations.
-Formal film critique will be introduced.
- Room assignments will be scheduled on a weekly basis as specified in the Clinical Room Assignment Plan included in the Clinical Handbook. The student will receive either indirect or direct supervision for all procedures, according to the level of student competency. Students will be directly supervised at all time for emergent, specialized,

Operative and portable radiography, regardless of the level of student competency. Students will be directly supervised during all internal and external rotations

HSCU 2012

Prerequisite: HSCU 2010 and HSCU 2009
Clinical Education focuses on radiographic procedures for the following body systems:

Endocrine: various modalities
Circulatory: Angiography, Venogram
Nervous: Lumbar Puncture, Myelogram
Reproductive: Hysterosalpingogram, Vaginogram

-Routine procedures and projections will be taught for the above listed examinations.
- Room assignments will be scheduled on a weekly basis as specified in the Clinical Room Assignment Plan included in the Clinical Handbook. The student will receive either indirect or direct supervision for all procedures, according to the level of student competency. Students will be directly supervised at all time for emergent, specialized, operative, and portable radiography, regardless of the level of student competency. Students will be directly supervised during all internal rotations

HSCU 2013

Prerequisite: HSCU 2012 and HSCU 2011
- All competency requirements must be completed.
-Terminal competencies will be completed.
- Room assignments will be scheduled on a weekly basis as specified in the Clinical Room Assignment Plan included in the Clinical Handbook. The student will receive either indirect or direct supervision for all procedures, according to the level of student competency. Students will be directly supervised at all time for emergent, specialized, operative, and portable radiography, regardless of the level of student competency. Students will be directly supervised during all internal external rotations

APPENDIX A

REPEAT RADIOGRAPH LOG SHEET

HERITAGE VALLEY KENNEDY
SCHOOL OF RADIOGRAPHY

Monthly Student Repeat Radiograph Log Month: Name:

Date	Patient Age	Projection Repeated	Reason for Repeat	Corrective Action	Attending Registered RT Present During Repeat Exposure

School of Radiography Repeat Radiograph Policy

Radiographs are deemed unsatisfactory and in need of repeat by a qualified radiographer or the Clinical Instructor.

The qualified radiographer must be present, consultated, and actively participate in the repeated exposure. This is required regardless of the level of student competency.

Students are to document direct supervision of repeat radiogrphs by obtaining the initials of the attending qualified radiographer on the Repeat Radiograph Log sheet. These sheets are reviewed weekly by the Clinical Instructor to ensure compliance with this policy.

APPENDIX B

EXTERNAL ROTATION STUDENT EVALUATION FORM

HERITAGE VALLEY KENNEDY
SCHOOL OF RADIOGRAPHY

Purpose: The purpose of the external rotation assignment is to provide additional awareness and exposure to administrative and procedural protocols practiced in other institutions.

External Rotation

The student is able to:	**YES**	**NO**
Demonstrate promptness, courtesy, and professionalism at all times.	_____	_____
Adhere to prescribed hours scheduled.	_____	_____
Demonstrate genuine interests and learning in all areas.	_____	_____
Adhere to room rotations, unless changed by contact person.	_____	_____
Behave appropriately.	_____	_____

Technologists Comments:

_____ _____

Staff Technologist's Signature **Date**

_____ _____

Student Signature **Date**

Any item marked "no" will be re-evaluated after additional instruction and/or experience within the same clinical semester. The student is responsible to seek out re-evaluation by the C.C. or the staff R.T. Re-evaluation is to be initialed and dated in the "yes" column.

APPENDIX C

EXTERNAL ROTATION WORKSHEET

HERITAGE VALLEY KENNEDY
SCHOOL OF RADIOGRAPHY

Name: _____
Date: _____

External Rotation Worksheet
5 Points

1. Describe the culture of the organization. (Example: Size of the hospital, description of the population it serves, hospital values and standards in patient care.)

2. Describe the imaging equipment. What types and brands of equipment do they have within the department?

3. Describe one interesting case you saw at this rotation in detail.

APPENDIX D

TRACKING SHEET

HERITAGE VALLEY KENNEDY
SCHOOL OF RADIOGRAPHY

TRACKING SHEET

I_____ have given my Room Objective Sheet/Exam Competency
(Student's Name)

for _____to _____on _____.
(Specific room or specific study) (Attending Technologist) (Date)

_____	_____	_____	_____
(Student's Initials)	**(Technologist's initials)**	**(Date)**	**(C.C. initials & date)**

APPENDIX E

CLINICAL CRITICAL THINKING CRITERIA/GRADE SHEET

HERITAGE VALLEY KENNEDY
SCHOOL OF RADIOGRAPHY

CLINICAL CRITICAL THINKING ASSIGNMENT CRITERIA

Assignment: Students should select a radiographic examination or procedure in which they had to utilize significant critical thinking skills. Such opportunities arise when, because of patient condition or capability, equipment limitations, or specific examination ordered, the student cannot perform the examination in the routine manner. The field of Radiography, by nature, offers several opportunities in which critical thinking skills are required, so students should not have any difficulty with this assignment.

Students should assess their clinical performance and determine if their methodology was adequate, or if it could be improved. Students will share this information with their classmates so that they can learn and benefit from each other.

Purpose of Assignment: To heighten the student's ability to adequately recognize and respond to variations in patient condition/capability so as to consistently produce quality radiographs in non-routine situations. Students will also learn to perform self-assessment and peer-review by sharing, discussing, and evaluating the decision making skills, clinical methodology, and outcomes associated with the corresponding non-routine clinical situations.

Number of Required Assignments & Due Dates: Listed in course syllabus.

Grading: Each assignment will be worth a total of 16 points and will be graded according to the following 8 criteria:

1) Description of Situation
Specific Goals & Sub-Goals (2 Points)

- Start the assignment with a summary of the scenario, to support understanding of the situation at hand.
- The main goal is to produce a high quality radiograph, as specified by the ordering physician while providing excellent patient care.
- Sub-goals should be specific will result in meeting the main goal.

2) Assessment of Situation (2 Points)

- What is the physical and mental status of the patient & how may these affect you reaching your goals?
- What equipment is available to me and how may this affect me reaching my goals?
- What are the technical abilities of the equipment available to you and how may these affect you reaching your goals?

3) What are the different options to I have to get a good x-ray in this situation and what are the likely results of each option? (Brainstorming) (2 Points)

4) Selection of method (Why did you decide to do it the way that you did?) (2 points)

5) Results (How did it turn out? How are my films? Does it meet the film criteria as listed in Merrill's?) (2 points)

6) Recommendations for similar future situations (Would you do it the same way or different, and why?) (2 points)

7) Generation of class discussion, opinions, input. (2 points)
Instructor use only, no student response needed.

8) Relevancy of case. Were critical thinking skills truly necessary for this exam? (2 points)
Instructor use only, no student response needed.

References in APA or MLA format are required for all sources utilized, including Merrill's Volumes.

A:\formsI\critthink

HERITAGE VALLEY KENNEDY
SCHOOL OF RADIOGRAPHY

Name: _____

Date: _____

CLINICAL CRITICAL THINKING ASSIGNMENT

1) Description of Situation

Specific Sub-Goals (2 points)

Start the assignment with a summary of the scenario, to support understanding of the situation at hand. While the main goal is to produce a high quality radiograph, as specified by the ordering physician while providing excellent pt. care, what are sub-goals *(specific and pertinent to your critical thinking case)* that will help you reach the main goal? DO NOT list common procedures that should be done anyway. Things such shielding, selecting proper technical factors, etc. usually do not require significant critical thinking.

2) Assessment of Situation: (2 points)

- What is the physical and mental status of the patient & how may these affect you reaching your goals?

- What equipment is available to me and how may this affect me reaching my goals?

- What are the technical abilities of the equipment available to you and how may these affect you reaching your goals?

3) What are the different options you had to get a good x-ray in the situation and what were the likely results of each option? (Brainstorming) (2 points)

4) Selection of Method (Why did you decide to do it the way that you did?) (2 points)

5) Results (How did it turn out? How are my films? Does it meet the film criteria as listed in Merrill's?) (2 points)

6) Recommendations for Similar Future Situations (Would you do it the same way, or different, & why?) (2 points)

7) Generation of class discussion, opinions, input. (2 Points)
Instructor use only, no student response needed.

8) Relevancy of case. Were critical thinking skills truly necessary for this situation? (2 Points)
Instructor use only, no student response needed.

APPENDIX F

PRELIMINARY RADIOGRAPHIC EXAMINATION
COMPETENCY RECORD

PRELIMINARY RADIOGRAPHIC EXAMINATION COMPETENCY RECORD

Student's Name: _____ **Date Issued:** _____

Note to Technologists: ***By initialing any preliminary competency you are verifying that, while under your direct supervision, the student performed that radiographic study proficiently, satisfactorily, and nearly independently.***

Chest:

Routine (5)	_____	_____	_____	____	_____
Wheelchair or stretcher (5)	_____	_____	_____	____	_____
Decubitus (2)	_____	_____			
Portable (5)	_____	_____	_____	____	_____

Abdomen:

Flat plate (KUB) (5)	_____	_____	_____	____	_____
Upright Abdomen (4)	_____	_____	_____	____	
Multiple (w/decub & erect) (4)	_____	_____	_____	____	
Portable (2)	_____	_____			

Upper Extremity:

Fingers (2)	_____	____			
Hand (3)	_____	_____	_____		
Wrist (3)	_____	_____	_____		
Forearm (2)	_____	_____			
Elbow for pain (3)	_____	_____	_____		
Elbow for injury (3)	_____	_____	_____		
Humerus (2)	_____	_____			

Vertebral Column:

C-spine (5)	_____	_____	_____	_____	_____
X-table C-spine (3)	_____	_____	_____		
T-spine (3)	_____	_____	_____		
Lumbar spine (5)	_____	_____	_____	_____	_____
Sacrum and/or Coccyx (2)	_____	_____			
Scoliosis series (2)	_____	_____			

Lower Extremity:

Foot (3)	_____	_____	_____
Ankle (3)	_____	_____	_____
Os Calcis (2)	_____	_____	
Lower Leg (2)	_____	_____	
Knee, 3 view (3)	_____	_____	_____
Tang. Patella (3)	_____	_____	_____
Femur (2)	_____	_____	
Toes (2)	_____	_____	
Patella (2v)	_____	_____	

Shoulder Girdle:

Shoulder (3)	_____	_____	_____
Y-lateral (3)	_____	_____	_____
Scapula (2)	_____	_____	
Clavicle (2)	_____	_____	
AC joints (2)	_____	_____	

Hip & Pelvis:

Hip (3)	_____	_____	_____
Pelvis (2) (AP & AP oblique, frog)	_____	_____	
Hip X-table (2)	_____	_____	

Cranium:

Skull (3)	_____	_____	_____
Sinuses (3)	_____	_____	_____
Facial Bones (2)	_____	_____	
Zygo Arches (2)	_____	_____	
Orbits (2)	_____	_____	

Nasal bones (2) _____ _____

Sacroiliac joints (2) _____ _____

Mandible (2) _____ _____

Bony Thorax:

Ribs (3) _____ _____ _____

Sternum (2) _____ _____

Contrast Studies:

Esophagram (2) _____ _____

UGI (5) _____ _____ _____ _____ _____

Small Bowel Series (3) _____ _____ _____

BE, single contrast (4) _____ _____ _____ _____

BE, double contrast (4) _____ _____ _____ _____

Cystography or
Cystourethrography (2) _____ _____

Other Procedures:

Myelography (2) _____ _____

Unenhanced head CT (2) _____ _____

Soft tissue neck (2) _____ _____

Trauma Upper
Extremity (3) _____ _____ _____
(Non- Shoulder)

Trauma Lower
Extremity (3) _____ _____ _____

Portable Orthopedics (3) _____ _____ _____

Digital Fluoroscopy (3) _____ _____ _____

OR Procedures:

C-arm procedure
(Orthopedic) (2) _____ _____

C-Arm procedure
(Non-Orthopedic) (2) _____ _____

Op. cholangiogram (2) _____ _____

Retrograde pyelogram (2) _____ _____

Key:

- Mandatory by ARRT

- Must perform all 37 mandatory exams.
- 8 mandatory comps can be simulated

- Electives by ARRT

- Must perform 15 elective exams.
-Candidates must select one procedure from the head section, and two of the 15 elective imaging procedures must be selected from the fluoroscopy studies section; one of which must be either Upper GI or contrast enema.

Pediatrics, 6 years of age & younger:

Chest (2) _____ _____

Upper Extremity (2) _____ _____

Lower Extremity (2) _____ _____

Abdomen (2) _____ _____

Mobile Study (2) _____ _____

Pediatrics, 18 years of age & younger:

Chest (2) _____ _____

Barium study (2) _____ _____

Extremity (2) _____ _____

AP, abdomen (KUB) (2) _____ _____

APPENDIX G

OPTIONAL PRELIMINARY RADIOGRAPHIC EXAMINATION COMPETENCY RECORD

OPTIONAL RADIOGRAPHIC EXAMINATION PRELIMINARY COMPETENCY RECORD

Upper Extremity

Elbow, acute flexion (1) _____

Elbow, partial flexion (1) _____

Elbow, radial head projection of (1) _____

Foot, weight-bearing (1) _____

Humerus, transthoracic (1)_____

Thumb (1) _____

Wrist, radial & ulnar deviation (1) _____

Wrist, Stecher's (2) _____ _____

Wrist, tangential for carpal canal (1) _____

Lower Extremity

Ankle, stress series (1) _____

Femur, trauma (with x-table lats) (1) _____

Intercondylar fossa, Camp Coventry (1) _____

Intercondylar fossa, Holmblad (1) _____

Knee, obliques (1) _____

Knees, weight bearing (2) _____ _____

Chest

Chest, AP supine on table (1) abdomen, lateral (1) ____

Chest, apical lordotic (1) _____

Chest, dorsal or ventral decubitus (1) _____

Chest, obliques (1) _____

Abdomen

Abdomen, dorsal decubitus (1) _____

Abdomen, lateral (1) _____

Shoulder Girdle

Shoulder, inferior-superior axillary (1) _____

Shoulder, neutral position (1) _____

Shoulder, transthoracic (1) _____

Bony Thorax

Sternoclavicular joints (1) _____

Hip/Pelvic Girdle

Pelvis obliques (1) _____

Pubic bones (1) _____

Spine

Cervical, flex/ext (2) _____ _____

Cervical, Fuch's (2) _____ _____

Cervical, portable AP axial (1) _____

Cervical, portable AP axial obliques (1) _____

Cervical, portable x-table lat (1) _____

Lumbar, flex/ext (2) _____ _____

Lumbar, rt. & lt. bending (1) _____

Lumbar, weight-bearing (1) _____

Skull/sinuses

Mastoids (1) _____

Orbits, PA axial for
Superior Orbital fissures (1) _____

Orbits, PA axial for
Inf. orbital fissures (1) _____

Orbits reverse Rhese (1) _____

Salivary gland (1) _____

Sella turcica (1) _____

Sinuses, open mouth Waters (1) _____

Skull, non-routine
AP (1) _____
Acanthioparietal (1) _____
PA axial (1) _____

TMJs, routine (1) _____

TMJs, AP axial (1) _____

Fluoroscopic Procedures

BE colostomy (1)_____

Esophagus overheads (1) _____

Modified barium swallow (2) _____ _____

Stomach projections (UGI overheads) (1) _____
AP, PA oblique, & lateral (PA optional)

Special & Miscellaneous Procedures

Angiogram (2) _____ _____

ERCP (1) _____

Oral cholecystogram (1) _____

T-tube cholangiogram (1) _____

Venogram (1) _____

APPENDIX H

RADIOGRAPHIC EXAMINATION COMPETENCY FORM AND GRADING CRITERIA

RADIOGRAPHIC EXAMINATION COMPETENCY

Student Name: _____ **Date of Procedure:** _____

Age of Patient: _____

Attending Technologist: _____

Radiographic Examination: _____

Mandatory Competency: ____ **Elective Competency:** ____ **Patient:** _____ **Simulated:** _____

Routine Patient_____ **Non-Routine Patient**_____

Preliminary Measures: Please mark the following yes or no. Yes = 1 point, No = 0 points

Did the student:

1. Review the requisition adequately	
2. Verify the physician's orders	
3. Verify patient identity	
4. Demonstrate preparedness for the study	
5. Interact with the patient properly	
6. Provide good patient care/Respects privacy	
7. Obtain an accurate and thorough patient history	
Total score for preliminary measures	

Technologist's comments:

Individual Projections Performed:

1. _____ 8. _____
2. _____ 9. _____
3. _____ 10. _____
4. _____ 11. _____
5. _____ 12. _____
6. _____ 13._____
7. _____ 14. _____

Grading Scale *Please use the following scale to evaluate student performance:*

3 points **2 points** **1 point** **0 points**

Performance Evaluation. ***Please evaluate the student on the following:***

Projection:	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
1) Film size and type														
2) Use of equipment														
3) Positioning skills														
4) Central ray direction & placement														
5) Collimation														
6) Use and location of markers														
7) Exposure factors														
8) Radiation protection of self and patient														
9) Length of time to complete														
10) Number of required repeats														
Total (to be completed by C.C.)														

Technologist's comments:

Image Evaluation (Completed by Clinical Coordinator). ***Does the resultant radiograph demonstrate proper:***

Projection:	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
1) Anatomical structures														
2) Alignment of C.R., body part, & film														
3) Radiographic properties														
4) Patient identification														
5) Visibility of markers														
6) Date and other pertinent information														
7) Student identification of anatomy														
8) Student critique of radiograph														
Total														

Technologist's comments:

Evaluator's signature: _____ **Date:** _____

Student's signature: _____ **Date:** _____

Student initials after review of evaluation: _____

Radiographic Competency Explanation Criteria

Film Size & Type

1. Was the proper film chosen, 14X17, 11X14, 10X12, or 8X10?
2. Was the film placed in the bucky or table properly.
   Crosswise vs. Lengthwise
3. Was the proper placement of film chosen correctly?
   Bucky vs. Tabletop.

Use of Equipment

1. Was the proper room chosen to accommodate the procedure?
2. Was the student able to maneuver the table or upright bucky properly.
3. Was the student able to maneuver the tube properly?

Positioning Skills

1. Did the student pick the proper position for the patient?
   Supine vs. Prone
   Oblique vs. Non Oblique
   Lateral vs. Non Lateral
   Decubitis, AP or PA
2. Was the patient positioned with the correct amount of rotation?
   Obliquity vs. Non Obliquity
   Lateral vs. Non Lateral
   Supine vs. Prone (no rotation of body)
3. Was the patient's entire body positioned within the same plane?

Central Ray Direction & Placement

1. Was the proper Central Ray chosen?
   Perpendicular
   Caudad
   Cephalad
   Tangential
   Parallel
2. Was the Central Ray centered per Merrill's and the position of the part (anatomy) of interest was not cut off?
3. Was the Central Ray lined up to the film or bucky properly?

Collimation

1. Was proper collimation used on the radiograph?
2. Was all anatomy of interest on film, nothing coned off film?
3. Was the radiographic identification (marker) coned off film?

Exposure Factors

1. Was the proper technique employed?
2. Was the contrast and density adequate for viewing?
3. Was the console set up properly? Correct Ionomat chambers chosen for bucky vs tabletop.

Radiation Protection of Self and Patient

1. Was the patient properly shielded for the exam?
2. Did the student use and employ proper protection for themselves.
3. Were all doors closed and unnecessary people removed before making exposure to ensure proper radiation protection?

Length of Time to Complete

1. Was 2-3 minutes used for each radiograph.
2. Did the student feel unsure of themselves and employ too much time.
3. Did the student complete the patient from start to finish? (Getting patient dressed and completing them in the computer system).

Use and Location of Markers

1. Was the proper marker chosen Right vs. Left? (Correct anatomical placement).
2. Was the placement of the marker positioned properly per Merrill's?
3. Was the marker within the coned area of interest?

APPENDIX I

ADDITIONAL RADIOGRAPHIC EXAMINATION COMPETENCY FORMS AND GRADING CRITERIA

RADIOGRAPHIC TERMINAL EXAMINATION COMPETENCY

Student Name: _____ **Date of Procedure:** _____

Age of Patient: _____ **Student Pick:** _____ **C.C. Pick:** _____

Attending Technologist: _____

Radiographic Examination: _____

Mandatory Competency: ____ **Elective Competency:** ____ **Patient:** _____ **Simulated:** _____

Preliminary Measures: Please mark the following "yes" or "no" Yes = 1 point, No = 0 points

Did the student:

1. Review the requisition adequately	
2. Verify the physician=s orders	
3. Verify patient identity	
4. Demonstrate preparedness for the study	
5. Interact with the patient properly	
6. Provide good patient care/Respects privacy	
7. Obtain an accurate and thorough patient history	
Total score for preliminary measures	

Technologist's comments:

Individual Projections Performed:

1. _____ 8. _____
2. _____ 9. _____
3. _____ 10. _____
4. _____ 11. _____
5. _____ 12. _____
6. _____ 13. _____
7. _____ 14. _____

Grading Scale *Please use the following scale to evaluate student performance:*

3 points **2 points** **1 point** **0 points**

Performance Evaluation. ***Please evaluate the student on the following:***

Projection:	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
1) Film size and type														
2) Use of equipment														
3) Positioning skills														
4) Central ray direction & placement														
5) Collimation														
6) Use and location of markers														
7) Exposure factors														
8) Radiation protection of self and patient														
9) Length of time to complete														
10) Number of required repeats														
Total (to be completed by C.C.)														

Technologist's comments:

<u>Image Evaluation</u> (Completed by Clinical Coordinator). ***Does the resultant radiograph demonstrate proper:***

Projection:	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
1) Anatomical structures														
2) Alignment of C.R., body part, & film														
3) Radiographic properties														
4) Patient identification														
5) Visibility of markers														
6) Date and other pertinent information														
7) Student identification of anatomy														
8) Student critique of radiograph														
Total														

Technologist's comments:

Evaluator's signature: _____ **Date:** _____

Student's signature: _____ **Date:** _____

Student initials after review of evaluation: _____

Student Name: _____ **Date of Procedure:** _____

Age of Patient: _____

Attending Technologist: _____

Radiographic Examination: _____

Mandatory Competency: ____ **Elective Competency:** ____ **Patient:** _____ **Simulated:** _____
Routine Patient_____ **Non-Routine Patient**_____

Preliminary Measures: Please mark the following yes or no. Yes = 1 point, No = 0 points

Did the student:

1. Review the requisition adequately	
2. Verify the physician's orders	
3. Verify patient identity	
4. Demonstrate preparedness for the study	
5. Interact with the patient properly	
6. Provide good patient care/Respects privacy	
7. Obtain an accurate and thorough patient history	
Total score for preliminary measures	

Technologist's comments:

Individual Projections Performed:

1. _____ 8. _____
2. _____ 9. _____
3. _____ 10. _____
4. _____ 11. _____
5. _____ 12. _____
6. _____ 13._____
7. _____ 14. _____

Grading Scale *Please use the following scale to evaluate student performance:*

3 points **2 points** **1 point** **0 points**

Performance Evaluation. ***Please evaluate the student on the following:*** Pediatric

Projection:	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
1) Film size and type														
2) Use of equipment														
3) Positioning skills														
4) Central ray direction & placement														
5) Collimation														
6) Use and location of markers														
7) Exposure factors														
8) Radiation protection of self and patient														
9) Length of time to complete														
10) Number of required repeats														
Total (to be completed by C.C.)														

Technologist's comments:

<u>Image Evaluation</u> (Completed by Clinical Coordinator). ***Does the resultant radiograph demonstrate proper:***

Projection:	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
1) Anatomical structures														
2) Alignment of C.R., body part, & film														
3) Radiographic properties														
4) Patient identification														
5) Visibility of markers														
6) Date and other pertinent information														
7) Student identification of anatomy														
8) Student critique of radiograph														
Total														

Technologist's comments:

Evaluator's signature: _____ **Date:** _____

Student's signature: _____ **Date:** _____

Student initials after review of evaluation: _____

RADIOGRAPHIC PROCEDURE COMPETENCY Adult ( ) Pediatric ( )

Student Name: _____ Procedure Date: _____

Age of Patient: _____

Attending Technologist: _____

Radiographic Procedure:

_____

Mandatory Competency: ____ Elective Competency: ____ Patient: _____ Simulated: _____

Preliminary Measures: Please mark the following "yes" or "no". Yes = 1 point, No = 0 points

Did the student:

1. Review the requisition adequately	
2. Verify the physician's orders	
3. Verify patient identity	
4. Demonstrate preparedness for the study	
5. Interact with the patient properly	
6. Provide good patient care/Respects privacy	
7. Obtain an accurate and thorough patient history	
Total score for preliminary measures	

Technologist's Comments:

Grading Scale *Please use the attached Radiographic Competency Explanation Criteria to evaluate student performance:*

3 points 2 points 1 point 0 points N/A-Not Applicable

Adult ( ) Pediatric ( )

Performance Evaluation. ***Please evaluate the student on the following:***

1) Use of equipment	
2) Knowledge of procedure	
3) Length of time to complete	
4) Ability to anticipate next step	
5) Radiation protection of self and patient	
6) Interaction with Doctor	
Total	

Technologist's comments:

Evaluator's signature: _____ **Date:** _____

Student's signature: _____ **Date:** _____

Student initials after review of evaluation: _____

APPENDIX J

SAMPLE SESSION REQUIREMENT FORM

HSCU 2002: Clinical Session Requirements

Name:

Competency	**Date**	**Grade**
Room Objective Worksheet	**Date Completed**	**Grade**
Front Desk		
File Room		
Pain Center		
C Room - Fluoroscopy		
D Room		
E Room		
Emergency Room		
Portable		
Operating Room		
Specials		
Heritage Valley Center Township/Edgeworth		
Heritage Valley Aliquippa		
Heritage Valley Robinson		
	Total Points	
Exam Observed Worksheet	**Date Completed**	**Grade**
UGI		
Clinical Written Assignments	**Average**	

APPENDIX K
PROFESSIONAL ADJUSTMENT EVALUATION FORM
AND GRADING CRITERIA

PROFESSIONAL ADJUSTMENT FORM

HERITAGE VALLEY KENNEDY
SCHOOL OF RADIOGRAPHY

Name: _____ Date: _____

Clinical Semester: _____ Grade: _____

ORGANIZATIONAL SKILLS

(YES) (No) 1. Student consistently arrives to clinical on time.
(Yes) (No) 2. Student is prepared and attentive in class.
(Yes) (No) 3. Student is prepared during clinical time in the Imaging Department with competency record and pocket guide in hand.
(Yes) (No) 4. Student wears radiation badge at all times during clinical and demonstrates proper storage.
(Yes) (No) 5. Student has turned in all clinical assignments on time during the semester.

RELATIONSHIP WITH STAFF AND PEERS

(Yes) (No) 1. Student exhibits confidence and displays professional behavior.
(Yes) (No) 2. Student is dependable and stays in their assigned clinical area.
(Yes) (No) 3. Student cooperates with staff technologists and works as a team member within the Imaging Department.
(Yes) (No) 4. Student handles criticism well from staff technologists and exhibits a positive attitude during clinical time.
(Yes) (No) 5. Student maintains a professional relationship with classmates.

RELATIONSHIP WITH PATIENTS

(Yes) (No) 1. Student communicates appropriately and gives undivided attention to patients and provides information about the procedure to the patient.
(Yes) (No) 2. Student adequately interviews the patient for an accurate clinical history.
(Yes) (No) 3. Student assists patients with any needs, problems or fears that may arise while in their care.
(Yes) (No) 4. Student can handle challenging situations with patients regarding pain, anger or hostility.
(Yes) (No) 5. Student respects the patient's individual dignity and privacy and recognizes and upholds patient's rights.

FLEXIBILITY

(Yes) (No) 1. Student is in control at all times; makes sounds decisions and adapts to unusual

circumstances.

(Yes) (No) 2. Student is willing to challenge non-routine situations and perform the exams to their level of competency.

(Yes) (No) 3. Student demonstrates flexibility in assisting other staff members, as needed; to assure patient flow.

(Yes) (No) 4. Student is able to adapt to new challenges and help others during clinical time.

(Yes) (No) 5. Student follows through with their patients from arrival to completion.

INITIATIVE

(Yes) (No) 1. Student performs tasks that are unassigned, but necessary; demonstrates effective use of down time.

(Yes) (No) 2. Student has room objectives completed in a timely manner per clinical handbook.

(Yes) (No) 3. Student achieves the total number of competencies needed during the clinical semester.

(Yes) (No) 4. Student has long term goals and does not put exams off due to a lack of confidence.

(Yes) (No) 5. Student actively performs tasks within the clinical objectives.

POLICY COMPLIANCE

(Yes) (No) 1. Student complies with all program policies without exception.

(Yes) (No) 2. Student adheres to the proper dress code during the clinical semester per the student handbook.

(Yes) (No) 3. Student has not received a verbal or written warning within the semester.

(Yes) (No) 4. Student has submitted Monthly Repeat Radiograph Log Sheets. Student has also complied with having a technologist present during all repeat exposures.

(Yes) (No) 5. Student has complied with hospital policies.

_____

Total

Evaluator Comments:

_____ _____

Evaluator Signature (Date) **Student Signature (Date)**

Student Comments

Number of (Yes) Responses	Percentage
30	100%
29	97%
28	93%
27	90%
26	87%
25	83%
24	80%
23	76%
22	73%
21	70%

APPENDIX L

TECHNOLOGIST EVALUATION OF STUDENT AND EVALUATION CRITERIA

HERITAGE VALLEY KENNEDY
SCHOOL OF RADIOGRAPHY

TECHNOLOGIST EVALUATION OF STUDENT PERFORMANCE

Student Name: _____

Evaluating Technologist: _____

Date: _____ **Semester:** _____

	Outstanding	Acceptable, needs minor improvement	Unacceptable, needs major improvement	Unsatisfactory
ORGANIZATIONAL SKILLS				
1. Comes to clinic prepared (Procedure book, markers, pens, etc.)	_____	_____	_____	_____
2. Keeps room neat & stocked	_____	_____	_____	_____
3. Prepares room for exam	_____	_____	_____	_____
RELATIONSHIP WITH STAFF & PEERS				
1. Is pleasant & amicable	_____	_____	_____	_____
2. Exhibits cooperation and sense of Teamwork	_____	_____	_____	_____
3. Is responsive to corrections & suggestions	_____	_____	_____	_____
TECHNICAL SKILLS				
1. Understands basic principles of Procedure	_____	_____	_____	_____
2. Applies good classroom/clinical knowledge	_____	_____	_____	_____
3. Demonstrates proficiency in procedures	_____	_____	_____	_____
PATIENT CARE SKILLS				
1. Maintains patient dignity & privacy	_____	_____	_____	_____
2. Explains procedure, answers questions, & acquires good patient history	_____	_____	_____	_____
3. Demonstrates good patient care skills	_____	_____	_____	_____

FLEXIBILITY

1. Willing to try new exams	_____	_____	_____	_____
2. Willing to help as needed	_____	_____	_____	_____
3. Able to adapt to non-typical situations	_____	_____	_____	_____

INITIATIVE

1. Actively seeks out learning opportunities	_____	_____	_____	_____
2. Shows interest in learning new Procedures	_____	_____	_____	_____
3. Performs tasks without persistent prodding	_____	_____	_____	_____

PROFESSIONALISM

1. Accepts responsibility for his/her actions	_____	_____	_____	_____
2. Accepts & benefits from constructive criticism	_____	_____	_____	_____
3. Maintains patient and co-workers confidentiality	_____	_____	_____	_____

TECHNOLOGIST COMMENTS

_____ _____

Technologist's Signature **Date**

_____ _____

Student's Signature **Date**

STUDENT REVIEW OF CLINICAL HANDBOOK
(FILE COPY)

I, _____, have read and understand the contents of The Heritage Valley Kennedy School of Radiography's Clinical Handbook.

_____
(Student's Signature)

_____
(Witness of Student's Signature)

_____
(Date)

_____
(Clinical Coordinator's Signature)

File copy

STUDENT REVIEW OF CLINICAL HANDBOOK
(STUDENT COPY)

I, _____, have read and understand the contents of The Heritage Valley Kennedy School of Radiography's Clinical Handbook.

_____
(Student's Signature)

_____
(Witness of student's signature)

_____
(Date)

_____
(Clinical Coordinator's Signature)

Student copy

HERITAGE VALLEY KENNEDY

SCHOOL OF RADIOGRAPHY

412-777-6210

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Kennedy Township, PA 15136

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