



TIDEWATER COMMUNITY COLLEGE

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RADIOGRAPHY PROGRAM

Student Handbook

Class of 2026



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WELCOME

Tidewater Community College
Radiography Program

Dear Future Radiographer,

Congratulations! You have taken a significant step in your life by enrolling in the Radiography Program here at Tidewater Community College.

In only two short years you will complete the program and be eligible for certification and licensure as a Registered Technologist. This step will open up many career opportunities and avenues for specialization.

The Radiography Program Faculty and Clinical Instructors are here to guide and assist you throughout your didactic and clinical education. Please do not hesitate to call upon us if you need assistance in any way!

On behalf of the program faculty and clinical instructors, we wish you success in completing your immediate and your future career goals with us.

Sincerely,

Sara J. Lewis

Sara J. Lewis, M.H.A, R. T. (R)
Program Director

Ann Ok Jerks, M.S., R.T.(R)
Assistant Professor & Clinical Coordinator

INTRODUCTION

The Tidewater Community College Radiography Program, established in 1980, is consistent with the purpose, goals and objectives of the college. Upon program completion, students earn an Associate of Applied Science degree in Radiography and are eligible to apply for national certification through the American Registry of Radiologic Technologists®. The program is accredited by the Joint Review Committee on Education in Radiologic Technology® and earned an 8-year award in 2017. In 2021, the JRCERT evaluated the program's interim report and determined that the program is in compliance with all relevant standards and awarded a Maintenance of Accreditation for a period of Eight Years!

Tidewater Community College is accredited by the Southern Association of Colleges and Schools the Commission on Colleges (SACSCOC) to award the Associate Degree.

THE PROGRAM

The program combines didactic and laboratory practice on campus and a structured clinical component for hands on experience. Each student spends approximately 1400 hours in the clinical setting within hospital departments throughout the area during the two years in the program. Through a blend of classroom and clinical education, students learn radiographic equipment operation, radiation physics, radiographic procedures, principles of exposure, radiation safety, radiobiology, patient care, and professional ethics.

Graduates are competent in all areas of diagnostic radiology and are prepared to accept employment as entry level staff radiographers upon graduation.

CAREER DESCRIPTION

As an essential member of the health care team, the radiologic technologist, radiographer, or a newer term "imaging specialist" combines human compassion and advanced imaging technology to create radiographic and computer images. The images provide valuable diagnostic information of human tissues, organs, bones, and vessels obtainable through no other branch of science.

The radiographer/imaging specialist also works closely with a radiologist or radiologist assistant (RA), assisting with the more advanced procedures that require administration of contrast media and a fluoroscope to produce real-time images. Body systems such as the gastrointestinal and genitourinary systems are routinely examined. The radiographer/imaging specialist applies patient care skills, knowledge of human anatomy, and expertise in the radiation sciences to produce high quality diagnostic radiographic images, while protecting the patient and themselves from unnecessary radiation exposure.

CAREER OPPORTUNITIES

Diagnostic radiographers, as well as those individuals who continue their education and training in radiologic specialties, are highly respected for their professional skills and training and can seek employment opportunities nationwide.

Employment opportunities in the radiologic sciences may be found in hospitals, out-patient medical facilities, physicians' offices, mobile imaging companies, industrial plants, research centers, government agencies, commercial sales and marketing.

Careers in the specialized areas of radiology may be pursued through certificate programs as well as on - the-job training opportunities. Specialty programs range from three months to two years and many are available in the immediate area. TCC offers specialized studies in mammography, CT and MRI.

Specialty areas include:

Computerized Tomography (CT)
Interventional Radiography (IR, IR(VI), and IR(CI))
Magnetic Resonance Imaging (MRI)
Mammography (M)
Radiation Therapy (Oncology) *
Diagnostic Medical Sonography (Ultrasound)*
Nuclear Medicine *
Radiologist Practitioner Assistant (RPA)*
Management/Education/Marketing *
PACS Coordinator

For information on these and other programs throughout the country, see the Program Director.

* Additional certificate/degree likely required

RADIOGRAPHY PROGRAM MISSION STATEMENT

The mission of the Radiography Program at Tidewater Community College is to prepare competent and professional technologists who will pass the ARRT Certification examination, gain employment, and provide compassionate care to all patient populations.

This mission is accomplished through:

- Fair and objective admission standards
- Accessible and affordable education without regard to race, color, sex, age, religion, handicap, national origin or other non-merit factors
- Commitment to high quality instruction, and a variety of instructional approaches and delivery methods to support students diverse learning styles
- Cultural diversity as a critically important strength for students to meet the changing needs of a pluralistic, democratic society
- Guidance and mentoring for students to achieve their educational goals and succeed in passing the ARRT Certification exam
- Provision of a comprehensive curriculum consisting of broad opportunities for students to develop skills in conceptual and theoretical understanding, analytical judgment, critical thinking and the ability to problem solve
- Didactic and clinical objectives addressing radiation protection, professional ethics and safe care for patients
- Provision of clinical practice to enable students to develop professionally and acquire the necessary knowledge base, communication and practical skills to succeed in the profession
- Partnerships and proactive responsiveness to provide a balance of radiographers to the region and to strive to meet the needs of the community it supports
- Encouragement and preparation for students to engage in professional development and lifelong learning activities

PROGRAM GOALS AND INTENDED OUTCOMES

Goal I. Students will be Clinically Competent

- Students will demonstrate accurate positioning skills
- Students will apply appropriate radiation protection practices
- Students will identify anatomical structures accurately

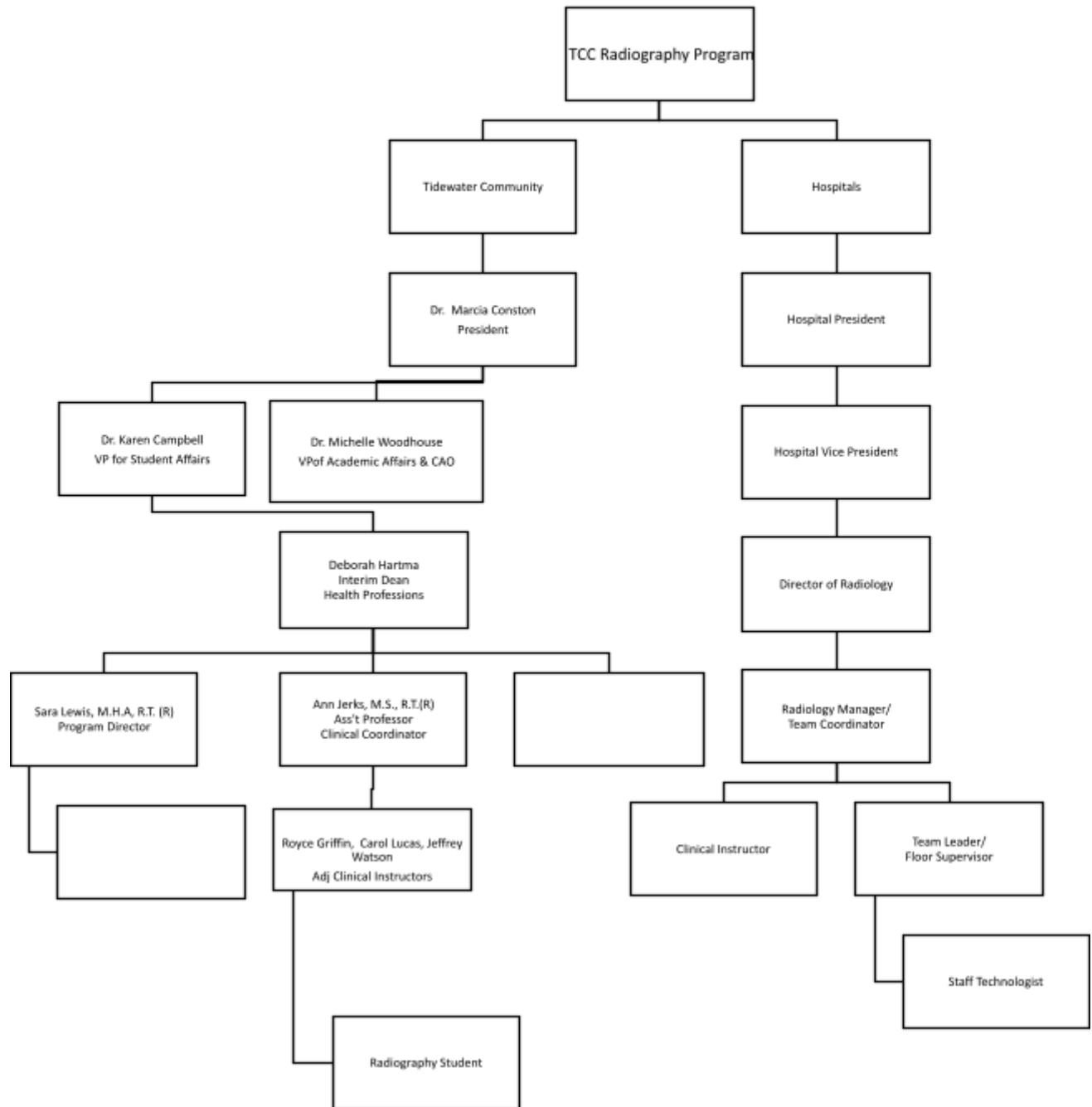
Goal II. Students will Apply Problem Solving and Critical Thinking Skills

- Students will demonstrate critical thinking when performing radiographic procedures
- Students will choose appropriate technique for learned exams

Goal III. Students will Demonstrate Effective Communication Skills

- Students will communicate effectively in writing
- Students will demonstrate effective communication skills with patients

ORGANIZATIONAL CHART



CERTIFYING AGENCIES

The following is a key to accreditation and certification abbreviations:

National Level

JRCERT	Joint Review Committee on Education in Radiologic Technology*
ASRT	American Society of Radiologic Technologists
SACS COC	Southern Association of Colleges and Schools, Commission on Colleges (Accredits TCC)

State Level

SCHEV	State Council of Higher Education in Virginia
VCCS	Virginia Community College System
TCC	Tidewater Community College
RAD	Radiography (course symbol)

Certification

ARRT	American Registry of Radiologic Technologists®
RT	Registered Technologist
R	Radiography
N	Nuclear Medicine Technology
T	Radiation Therapy
MR	Magnetic Resonance Imaging
S	Sonography
M	Mammography
CT	Computed Tomography
QM	Quality Management (no longer offered)
BD	Bone Densitometry
CI	Cardiac-interventional Radiography
VI	Vascular-interventional Radiography
BS	Breast Sonography
RRA	Registered Radiologist Assistant
RDMS	Registered Diagnostic Medical Sonographer
NMT	Nuclear Medicine Technologist
ABII	American Board of Imaging Informatics awards the
CIIP	Certified Imaging Informatics Professional PACS Administrator

JOINT REVIEW COMMITTEE ON EDUCATION IN RADIOLOGIC TECHNOLOGY®(JRCERT)

The Radiography Program (Radiography) (R) sponsored by Tidewater Community College is accredited for 8 years by the Joint Review Committee on Education in Radiologic Technology® (JRCERT). The program operates under the Standards for an Accredited Educational Program in Radiologic Sciences. The JRCERT Standards can be found on the JRCERT website by visiting www.jrcert.org

The JRCERT is a free-standing agency, solely responsible for the accreditation of Radiography Programs. JRCERT Accreditation of an educational program offers value to each of the following:

Students:

Accreditation of an educational program provides students, as graduates, assurance that the educational program will provide them with the requisite knowledge, skills, and values to competently perform the range of professional responsibilities expected by potential employers nationwide. It also assures they will be eligible for licensure in each of the 50 states. By requiring programs to teach the entire curriculum developed by the professional society, the American Society of Radiologic Technologists®, it also assures students they will have the foundational knowledge to continue to develop as professionals in the various fields of the radiation sciences.

Patients:

Accreditation of educational programs assures patients that students who perform procedures have appropriate supervision during the educational process. It also assures them that graduates will have met the minimum level of competency as defined nationally by the profession.

Educators:

Through the process of programmatic accreditation, educators are assured that their educational programs are keeping pace with the profession and with standards developed through national consensus.

Profession: The profession is assured, through programmatic accreditation, that educational programs in the field are providing consistent minimum education in the profession as the profession itself has defined it.

JRCERT

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<https://www.facebook.com/JRCERT101/>

PROFESSIONAL ORGANIZATIONS

Radiography Program students are encouraged to join the professional organizations. To facilitate membership and participation in the profession, annual dues for students are at a reduced rate. Membership offers informative and educational publications. Also, meetings are held annually at state and national levels. Students may attend these meetings at their own cost as part of their education. There also are essay and exhibit competitions in which students can win awards and recognition. Applications for these organizations may be obtained from the organization web sites listed below.

ASRT, AMERICAN SOCIETY OF RADIOLOGIC TECHNOLOGISTS®

www.asrt.org

- This national organization helps set educational and professional guidelines for the radiology profession. It maintains national salary and employment data and advocates for imaging professionals
- Publications:
 - Radiologic Technology Journal (bi-monthly)
 - ASRT Scanner (bi-monthly magazine)
- Maintains a record of your participation in their continuing education offerings
- Provides scholarship opportunities
- Annual Student and Educator Leadership Academies

VSRT, VIRGINIA SOCIETY OF RADIOLOGIC TECHNOLOGISTS

www.BEVSRT.org

- The Mission of the Society is that it promotes the Imaging and Radiation Sciences, supports education, enhances quality patient care and promotes the welfare of Imaging Technologists.
- Provides student scholarships and Student internships
- Annual Student, Educator and Technologist Seminar, and other continuing education opportunities

PROFESSIONAL DEVELOPMENT

All Radiologic Technologists must participate in various forms of Continuing Education related to their profession. Documented participation must be provided to the ARRT in order to receive renewal certification/registration. A total of 24 C.E. credits are required every two years once students graduate and pass the ARRT Certification Exam.

Continuing Qualifications Requirements CQR/2011

Effective January 1, 2011 (CQR/2011), all Radiologic Technologists will have to meet Continuing Qualifications Requirements (CQR) **every 10 years** to maintain active ARRT certification/registration. The process involves completing a professional profile indicating your work area up to 3 years prior to the 10-year mark, followed by a structured self-assessment (SSA) which the ARRT does not consider a test. If the SSA reveals any areas for learning opportunities, continuing education may be used to satisfy these identified areas. CQR must be completed for each modality the technologist is certified/registered.

Professional Development Activities for Students

Students enrolled in the TCC Radiography Program must complete a minimum of 15 professional development activities to be eligible for graduation from the program. These activities should be related to radiography, health or education at TCC. One hour of activity is worth 1 point. Students will be limited to 5 Community Service (CS) activities out of the required 15. Professional Development (PD/CS) performed during clinical or class time will not be considered. These required activities are in addition to assigned work. No regular or extra credit class assignments for Radiography courses, or any articles distributed in class will be allowed to count for PD/CS credit.

Examples of Professional Development/Community Service Activities are:

- Joining a Professional Society (no more than 1 credit awarded)
- Attendance at a Professional Conference – 1 hour of attendance = 1 activity
- Attendance at a Professional Organization Meeting
- Professional Journal Article Abstract
- Student ASRT members may submit Certificates of Completion from the ASRT for sponsored CE activities
- Presentation at a Professional Meeting
- Participation in the VSRT Student Seminar Student Bowl Competition
- Participation in Legislative Affairs related to the Radiography Profession
- Others approved by Program Officials – Please obtain permission in advance

Examples of Community Service:

- Career Day Participation
- Health Related Charity Events such as the “Heart Walk” or “Race for the Cure”
- Blood Donations
- Volunteering for a Charitable Organization such as a Soup Kitchen or Meals on Wheels
- Others approved by Program Officials – Please obtain permission in advance

Please Note: Class projects are not considered professional development activities.

PROGRAM FACULTY

<p>Sara Lewis, M.H.A, R.T.(R) Program Director (TCC) 822-7462 slewis@tcc.edu</p>		<p>Ann Ok Jerks, M.S., R.T.(R) Associate Professor (TCC) 822-7414 aok@tcc.edu</p>
<p>Royce Griffin, R.T.(R) Adjunct Faculty rgriffin@tcc.edu</p>	<p>Carol Lucas, R.T.(R) Adjunct Faculty clucas@tcc.edu</p>	<p>Jeff Watson, R.T.(R) Adjunct Faculty jwatson@tcc.edu</p>
<p>Amber Vrhovac, MS, R.T.(R)(M) Adjunct Faculty amyoun1@sentara.com</p>	<p>Melissa Johnson R.T.(R) Adjunct Faculty mljohnson@tcc.edu</p>	<p>Marc Florendo, R.T.(R) Adjunct Faculty, mflorendo@tcc.edu</p>

CLINICAL INSTRUCTORS

Vicki Anderson, R.T.(R) Sentara Careplex Hospital 757-736-1635	Jennifer Prodigalidad R.T.(R) Chesapeake Regional Medical Center 757-312-4298
Jennifer Sorrell, R.T.(R) Sentara Princess Anne Hospital 757-507-1171	Richard Albert, R.T.(R) Sentara Virginia Beach General Hospital 757-395-8807
Melissa Johnson, R.T.(R) Sentara Norfolk General Hospital 757-388-3865	Bailey Gray, R.T. (R) Children’s Hospital of the King’s Daughters 757-668-7250
Kristen Muhlenbeck, R.T.(R) Bon Secours Maryview Medical Center 757-398-2461	Jennifer Wellons, R.T.(R) Sentara Leigh Hospital 757-261-6828
Jessica Wagner, R.T. (R) Sentara Independence 757-363-6446	Ashley Dvorsak, R.T.(R) Jordan Young Institute of Sports Medicine 757-502-8581
Samuel Scott, R.T. (R) Sentara Port Warwick	

CURRICULUM

The program curriculum follows a planned outline described in the Curriculum Guide for Programs in Radiography published by the American Society of Radiologic Technologists. It has been approved by both state and national accrediting agencies.

https://www.asrt.org/docs/default-source/educators/curriculum/radiography/asrt-radiography-curriculum-2022.pdf?sfvrsn=c3bec8d0_10

Many students have the majority of their general education courses complete when they start the radiography program. When general education courses remain such as English, Social Sciences or Humanities, the student has flexibility as to when they choose to take these courses. This is true except for Medical Terminology (HLT 143 or 141) and Human Anatomy & Physiology II (BIO 142).

HLT 143/141 must be taken in the Summer semester according to the curriculum sequence, and BIO 142 must be taken no later than the Spring semester (third semester of the program). If both courses need to be taken, it is suggested that HLT 143 be taken in the summer, and BIO 142 be taken in the fall/Spring.

If the student is not successful in passing these courses with at least a "C" no later than the 3rd semester (Fall) in the program, he or she will be withdrawn from the Radiography Program.

Caution: College Policy dictates that a given course may not be attempted more than two times. W grades also count as attempts. After the second unsuccessful attempt, the student must obtain special permission and a signature from the Engineering, Science and Mathematics Pathway Dean to take the course for a third time.

The RAD Program will not condone or support students who must take a course more than twice. The RAD Program Director will not ask permission from the Pathway Dean for the permission to be granted.

The current radiography curriculum can be found at:

https://apollo.tcc.edu/pls/apex/f?p=122:32:0:::P32_CUR_GUIDE_ID:288

RADIOGRAPHY CURRICULUM CATALOG

(2021-2023)

* Distance Learning Course

ADMISSION SEMESTER			
Course Number	Course Title	Credits	Prerequisite
BIO 141	Human Anatomy and Physiology I	4	
SEMESTER 1 (BASED ON A SUMMER SEMESTER START)			
Course Number	Course Title	Credits	Prerequisite
HLT 141	Introduction to Medical Terminology	2	
HLT 150	Cross Cultural Health and Wellness Practices	1	
RAD 120	Medical Care Procedures and Safety in Radiology	3	Admission to Program
RAD 141	Principles of Radiographic Quality I	4	Admission to Program
SDV 101	Orientation to Healthcare	1	
	<i>SEMESTER TOTAL</i>	<i>11</i>	
SEMESTER 2			
Course Number	Course Title	Credits	Prerequisite
BIO 142	Human Anatomy and Physiology II	4	BIO 141
RAD 121	Radiographic Procedures I	4	Admission to Program
RAD 131	Elementary Clinical Procedures I	3	Admission to Program
RAD 142	Principles of Radiographic Quality II	4	RAD 141
	<i>SEMESTER TOTAL</i>	<i>15</i>	
SEMESTER 3			
Course Number	Course Title	Credits	Prerequisite
ENG 111	College Composition I	3	
RAD 132	Elementary Clinical Procedures II	3	RAD 131
*RAD 205	Radiation Protection and Radiobiology	3	Admission to Program
RAD 221	Radiographic Procedures II	4	RAD 121
	<i>SEMESTER TOTAL</i>	<i>13</i>	

SEMESTER 4			
Course Number	Course Title	Credits	Prerequisite
RAD 190	Coordinated Internship	3	RAD 132
*RAD 245	Radiographic Specialties	1	RAD 221
	SEMESTER TOTAL	4	
SEMESTER 5			
Course Number	Course Title	Credits	Prerequisite
MTH 154	Quantitative Reasoning	3	
*RAD 206	Human Disease and Radiography	2	Admission to Program
RAD 231	Advanced Clinical Procedures I	5	RAD 190
RAD 255	Radiographic Equipment	3	Admission to Program
	SEMESTER TOTAL	13	
SEMESTER 6			
Course Number	Course Title	Credits	Prerequisite
PSY 230	Developmental Psychology (or Social Science Elective)	3	
RAD 232	Advanced Clinical Procedures II	5	RAD 231
RAD 280	Terminal Competencies in Radiography	1	Admission to Program
	Humanities Elective1	3	
	SEMESTER TOTAL	12	
	TOTAL MINIMUM CREDITS	72	

GRADING SCALES


DIDACTIC COURSES	CLINICAL COURSES
A 94 - 100 B 86 - 93 C 78 - 85 D 70 - 77 F Below 70	A 96 – 100 B 91 - 95 C 86 - 90 D 81 - 85 F Below 81

BOOKS





















All students are expected to obtain and use the textbooks required for each radiography course in which they are enrolled.



Barnes and Noble, the college bookstore, also lists the required and optional material for RAD courses each semester. If you find a textbook cheaper somewhere else, Barnes and Noble will price match. Some books may be available for purchase, rent, or electronically online through Barnes and Noble:

<https://bntcc.bncollege.com/shop/tcc-vabeach/home>

Click here to choose your campus 

Select your course(s)

Term	Department	Course #	Section	
Select 	Select 	Select 	Select 	 Clear
Select 	Select 	Select 	Select 	 Clear
Select 	Select 	Select 	Select 	 Clear
Select 	Select 	Select 	Select 	 Clear

 or 

Check with course faculty before renting a book, as many of our books are used for multiple classes, and rental may not be the best option.

RADIOGRAPHY PROGRAM POLICIES

Attendance Policy

The Radiography Program attendance policy for didactic classes differs from the policy adopted by the college. Students are admitted into the program under the condition of adherence to the policy. **This policy applies to didactic courses only.** There is a separate clinical attendance policy outlined in the clinical section of this handbook. All students are not only expected, but **required, to be present** and on time for all scheduled class and laboratory meetings. Absenteeism and tardiness are not conducive to becoming a professional and dependable employee. A student who adds a class or registers after the first day of class is counted absent from all class meetings missed. Absences have an adverse effect on student achievement. The student is responsible for determining and making up all missed work.

Program faculty certainly understand that situations arise that cause students to miss class; thereby, the following policy has been implemented. Students will be allowed to miss up to **10%** of the scheduled class sessions before a **grade reduction** will occur. Students who miss more than the allowed 10% will be subject to a reduction of five percent off the final course grade for every day missed in excess of 10%. 10% constitutes less days in the summer semester because there are 10 weeks instead of 15 weeks. Students that miss more than 15% are withdrawn from the course.

Note: For classes that meet only once per week, attendance will be taken twice during the class meeting period. If a student attends the first half of the class but leaves after the break, he or she will be counted absent for 1/2 day. Any combination of half or whole days equating to two days constitutes 10 percent. **Falsification of a class attendance sheet is considered academic misconduct, and an ARRT ethics violation and will result in withdrawal from the program.** When reaching the maximum allowed number of absences, a student will receive notice by the instructor indicating that the student's class standing is in danger.

When an instructor determines that absences constitute unsatisfactory attendance, a conference will be called with the program director, instructor, and student to determine their status in the program. Students may be withdrawn by the instructor due to unsatisfactory attendance, which is defined by the college as absences in excess of 15% of the scheduled class sessions.

Lab Attendance Policy

Absences from laboratory sessions should be avoided. Labs are used to enhance the student's learning. Every session contains material imperative to the mastery of didactic material. Lab times are scheduled well in advance; therefore, all personal appointments should be scheduled around them. Switching to an alternate lab day will only be permitted in extenuating circumstances! The lab instructor must give permission for switching in advance. Lab attendance policies vary among the different radiography courses. Individual lab attendance policies will be addressed in the appropriate Radiography course syllabi.

Tardiness in Class / Lab

A student who enters the classroom after a lecture session is in progress shows disrespect and disrupts the instructor and other class members. Habitual tardiness for didactic classes and laboratory sessions will not be tolerated.

Any student entering the classroom after the scheduled lecture time will be counted tardy. Accumulation of three tardy days will constitute one absence. Any student entering the classroom twenty or more minutes after scheduled lecture time will be counted absent.

Promptness and good attendance are important aspects of professional behavior and are expected of all TCC Radiography students. Such behavior reflects positively on a graduate as a job applicant and influences prospective employers in the applicant's favor.

Vacation

All Radiography students are committed to a six-semester (two-year) educational program and should not plan vacation during the semester so they will not miss pertinent learning opportunities.

Vacations should be planned and taken during scheduled semester breaks. Breaks range from one week to four weeks in length and provide ample time for vacation and rejuvenation! Clinical attendance policies will apply to any vacation time taken during clinical rotations and will be deducted from the Clinical Time and Attendance Record.

Students who plan vacation during the first two weeks of a clinical rotation to a new site, will receive an oral warning. This orientation is essential to a successful clinical rotation and is scheduled well in advance.

TCC Closings and College Emergency Notification System

Once registered, TCC will notify students of any major crisis or emergency through cell phone and the email address(s) the student designates. Closings for an emergency situation or inclement weather will be sent directly to the student. It is highly recommended that radiography students register for TCC Alerts at <https://member.everbridge.net/index/453003085614995#/login>

The Radiography Program follows college policy. When weather conditions make it necessary to delay opening, cancel classes or close the college, the radiography program will follow policy.

When TCC cancels classes or closes the college, students do not report to class or clinic. If a **delayed opening** of either classes or the college is announced, classes scheduled to end before the delayed opening time will be canceled for the day. Classes scheduled to begin at the delayed opening time or later will meet as normally scheduled. Students should follow instructions provided by their instructor for classes that begin before the delayed opening time and would be in session past the delayed opening time. Students are encouraged to sign up for TCC Alerts to be notified of any closings or other important announcements. Radio and television stations will also be notified as soon as the administrative decisions are made.

Laboratory Policy

Radiation Monitoring for Laboratory Sessions

Radiation dosimeters will be provided for all students when they begin the program to monitor radiation doses received during laboratory and clinical assignments. Students will be required to wear their dosimeter during all lab sessions to ensure that radiation doses do not exceed the annual dose limit. Students who arrive to lab without their dosimeter will not be allowed to participate when exposures are being made. If this is a "Principles of Exposure" lab where frequent exposures are made, students will be required to attend on an alternate lab day to make up the lab. Alternatively, the student must forfeit credit for the lab according to the lab attendance policy. In the case of "Radiographic Procedures" test labs where exposures are not made, the student will be allowed to participate without a penalty.

PPE-Personal Protective Equipment

The purpose of using PPE is to prevent hazardous materials from the work environment from entering the mouth, eyes, nose or other areas of the body in danger by a certain task. This equipment includes protective clothing, safety glasses, respirators, protective shields, and various other equipment designed to protect the user. The Occupational Health and Safety Act (OSHA) requires that every worker wear the necessary protective clothing, equipment or devices in order to provide protection from the hazards to which the worker is exposed.

Appropriate PPE is provided in the labs. In addition, an eye wash station is mounted on the wall above the sink in case of eye exposure to film processing chemicals.

General Radiographic Film Processing Guidelines

Radiography students are not allowed to process film radiographs without a Radiography Program Faculty member on site. This is to ensure that if a chemical spill or accident occurs, the faculty member is available to provide immediate assistance and activate emergency services if necessary. Only Radiography program faculty are authorized to add replenishment chemicals to the processor. Students are not allowed to perform this task alone; however, they may assist faculty, provided personal protective equipment is worn as indicated in the MSDS's. Please inform the Radiography faculty for assistance if processor replenishment chemistry is needed.

Energized Radiology Laboratory Rules

The following rules will be strictly enforced by all Radiography program faculty:

1. Before making any x-ray exposures in the labs, the x-ray tube must be warmed up according to the GE protocol for the given equipment.
2. At NO time shall any individual be exposed to the useful beam. Equipment is to be used solely for the purpose of imaging the radiographic phantoms.
3. Students are forbidden to utilize the x-ray lab equipment to produce radiographs of any human subject. Failure to comply with this rule WILL result in immediate dismissal from the program.
4. At NO time shall a student make radiographic exposures without the presence of a qualified program instructor.
5. The door to the radiographic room and the control panel area must be closed before making x-ray exposures.
6. The x-ray beam should never be directed toward the control panel.
7. All students and faculty must be physically located behind the control panel area when exposures are made.
8. NO student or faculty shall make exposures or remain in the vicinity where exposures are being made without wearing their personnel radiation dosimeter.
9. Students will refer to the technique chart or laboratory manual for appropriate techniques before making exposures.
10. All radiographic exposures must be part of a specific assignment and performed under the supervision of a program faculty member.
11. Exposure of a personnel monitoring device to deceptively indicate a dose delivered to an individual is prohibited and may result in dismissal from the program.
12. All accidents or equipment malfunctions occurring in the radiographic labs must be reported to the supervising faculty member and/or the program director immediately and use of the equipment discontinued until the problem is corrected.
13. Bring safety violations or concerns you might have to the attention of the program faculty and program director as soon as they are observed.
14. Upon entering the lab, the student assumes responsibility for himself/herself and the radiographic equipment. Participation in safety and alertness to mechanical problems will help ensure a safe environment in which to practice.
15. Visitors **ARE NOT** allowed in the X-ray facility without notification to the program faculty. X-ray exposures while a visitor is present are prohibited.
16. Students using the laboratory at times outside of scheduled labs will ensure that the lab remains clean and will properly store all equipment and supplies used.
17. It is not permissible to make radiographic exposures when using the lab outside of scheduled lab times and without a faculty member present.

18. Students are authorized to use the x-ray equipment during off hours for practice. In this case, the power to the equipment will be available; however, the exposure switch will be disabled.

Test Policies

Make-up Tests

Tests are scheduled well in advance with the dates posted in the course outline (syllabus). RAD students are expected to take their test on the day it is scheduled unless extenuating circumstances exist and the instructor approves. If not approved the student will receive a grade penalty as per the syllabus for that course.

If the test is not made up by the deadline selected by the instructor, a grade reduction penalty will apply as outlined in the syllabus. Habitual absences on test days will result in failing the tests.

Policy on turning in your test:

Please examine your test very carefully before turning it into the instructor. Check to make sure you have completed all sections and questions. Once you turn in your test, you will not be able to get it back later to complete a section that you may have overlooked!

Retests

A test average below 78 percent is an indication that the student has not mastered the material. Any student who attains a test score average below 78 in any RAD course will be required to meet with the instructor and program director for counseling. Remedial assistance will be offered and encouraged to help the student improve their understanding of the material. Suggestions may include tutoring help, from the instructor or a student volunteer. Test re-taking will also be required as outlined in the next section under test score policy.

Test Score Policy

To ensure that all students master the critical course content in didactic radiography courses, and possess the minimum cognitive skills necessary to pass the ARRT Certification exam, the following test to ensure that all students master the critical course content in didactic radiography courses, and possess the minimum cognitive skills necessary to pass the ARRT registry exam, the following test re-taking policy and academic probation system have been established:

Any student who receives a test or final exam score below 78 percent in any RAD didactic course (including quizzes in RAD 121 and 280 and all written lab tests) must:

- Meet with the instructor and program director for counseling & assistance
- Re-take the test within two weeks from when it is returned to the student
- Attain a minimum score of 80 percent on the re-test

Students who fail multiple tests and final exams while in the program are placed on the retest policy. Once a student has failed 6 tests/exams, the student is withdrawn from the program. Failed final exams are Students who fail a course or are withdrawn due to failing 6 tests may not be allowed to reapply to the Radiography Program. Readmission to the program is decided by the Program Director.

3 failed tests/exams student is placed on Academic Watch

4 failed tests/exams student is placed on Academic Warning

5 failed tests/exams student is placed on Academic Probation

6 failed tests/exams student is placed on Academic Suspension and Withdrawn from Program

Extra Credit will not be considered in determining when a student will be required to take a retest. If the raw score on the test was 77% and extra credit in the amount of 2 points was given to bring the score up to 79, a test will be required. Records of tests will be documented on the Re-test and Academic Probation Google Form by program faculty. Multiple tests can result in academic probation and lead to withdrawal in extreme cases. The student must be successful at passing all re-tests with at least an 80%, **before being allowed to continue** in the program the following semester!

Policy for Multiple Retests

After 1 retest, students will be placed on Academic Watch. After 2 retests, students will be placed on an Academic Warning. After 3 retests, students will be placed on Academic Probation. When a student reaches 4 retests, Academic Suspension will result (withdrawal from the program).

Policy for Scoring below an 80% on a Retest

If a minimum score of 80 percent is not achieved on the re-test, an **Academic Warning** will be issued and documented in the student's file. If the student receives another test score below 80 percent on another test and is unsuccessful in re-testing above 80 percent, a **second Academic Warning** will be issued. If a re-test score on a third test is not at least 80 percent, the student will be placed on **Academic Probation** and the student will be **withdrawn** from the program.

- Re-test scores will not be used in calculation of the final course grade. They will only serve as evidence that the student has mastered the given material.
- Students will not be allowed to review old tests to memorize the answers before taking the re-test. Re-studying the notes is a much more effective way to master the material.
- If the student neglects to take the retest within a 15-week period, academic warnings will automatically be issued as if the retest score was a zero, and the student will not be able to continue in the program.
- If the student has multiple re-test occurrences, academic suspension may occur. Warnings will be issued after the 3rd episode of retesting. See the multiple retesting warning forms.

Course and Exam Grade Policies

Policy for Test and Exam Grade Average Below 78%

Test and final exam scores in each RAD course must average at least a 78 percent in order for the student to remain in good standing. This does not include quiz, homework, and laboratory components of the course. A grade below 78 percent (C) does not demonstrate cognitive mastery of course material. If an average of 78 occurs, students will be required to audit this RAD course when it is offered the following year. Depending on the class and clinical hours for that semester, students may be required to alter their clinical schedule and/or delay their graduation.

The following will apply to students who attain a course average below 78% (unit tests & exams are averaged together):

- **First Course:** *Academic Probation*
- **Second course:** *Withdrawal from the program*

Final Exam Score Policy

According to the re-test policy, the final exam must be re-taken if the score falls below a 78%, and if the re-test score is not at least an 80%, a warning is issued on the **Retest Probation Record**. In this case, the Final Exam must be subsequently re-taken as many times as necessary until a score of 80% is attained.

Policy for Multiple Final Exam Scores below 78%

Upon the first Final Exam score below 78%, the student will be placed on **Academic Watch**. Upon the second Final Exam score below 78%, the student will be placed on **Academic Warning**. Upon the third Final Exam score below 78%, the student will be **Withdrawn from the program**.

Cheating and Plagiarism

The Radiography Program has adopted the college policy on cheating and plagiarism which is published in the TCC Code of Student Rights and Responsibilities and Student Disciplinary Procedures. Refer to the most recent publication for the policy.

The radiography program will not tolerate any form of cheating in the program. Withdrawal from the program will result and an F grade will be given if students engage in academic misconduct. This is a profession you are entering, and cheating is not consistent with professional ethics and conduct. Any unprofessional or dishonest behavior of a student may receive a warning and be reported to the Code of Conduct Committee at TCC for further disciplinary actions.

Cell Phone, Social Media and Text Messaging

Cell phone usage is prohibited during class time, unless authorized by faculty. Phones or other media devices must not ring or be activated during class nor should students disrupt the class by leaving to respond to calls. Texting, and the use of these devices during class is prohibited, and if caught, students will be asked to leave and missed time will be counted per the attendance policy. Their use during a test will be considered cheating, and a grade of zero will be assigned for the test, and may result in withdrawal from the program. Students will be asked to leave all internet enabled devices on the desktop, or completely out of site during tests, and in the off position.

Employment

The student must coordinate outside employment around didactic and clinical schedules so that work hours do not conflict with school and clinic hours. Class and clinical schedules are published in advance and cannot be altered. Any problems encountered must be brought to the attention of the clinical coordinator or program director. Students are not permitted to do competencies or “performs” when working as staff or as paid student assistants.

Change of Name or Address

Any change of name or address should be reported promptly to the program director, as well as the Records Office, to assure accurate records on each student.

Faculty Evaluation

The College requires students to complete online evaluations of didactic, adjunct and laboratory faculty at the end of each semester. The College will notify students of the deadline for submission of the faculty evaluations through their TCC email. Clinical Site Surveys, Clinical Instructor Evaluations and Adjunct Clinical Evaluations will be sent at the end of each semester. These evaluations are invaluable to program faculty and instructors in the ongoing process of upgrading classroom and clinical instruction, and students are highly encouraged to complete them.

Canvas Learning Management System

The Radiography program utilizes the college’s learning management system to communicate with students, as well as to deliver course content. As a TCC student, you will be assigned a user name and password in order to access this

site using MY TCC and will be required to do so for assignments, handouts, clinical information and communication with fellow students and faculty. In addition, some courses are delivered in a hybrid or online format through Canvas.

FINAL GRADES

Official final grade reports will be posted by the college on the SIS computer system, and are accessible online by the student with a password. Final grades may be posted in individual classes by the instructor on Canvas.

HONORS

Honor Roll

A student who has earned a minimum of 30 hours at the college and has a cumulative grade point average of 3.5 or higher will be included on the honor roll for that semester.

Dean's List

A student who is carrying a minimum of 9 semester hours for credit and who earns a grade point average of 3.2 or higher for the semester will be included on the dean's list for that semester.

Graduation Honors

A student who has fulfilled program requirements is eligible for graduation honors according to his or her grade point average. The honors based upon scholastic achievement are:

Grade point average: *Honor:*

- | | |
|------------|--------------------------------------|
| 3.2 | cum laude (with honor) |
| 3.5 | magna cum laude (with high honor) |
| 3.8 | summa cum laude (with highest honor) |

PROGRAM AWARDS

Pins

A program pin has been designed to incorporate TCC and the Radiography Program. Students who successfully complete the program are permitted to participate in a graduate Pinning Ceremony held before the Commencement

exercises. School pins must be purchased by the student during the spring semester of the second year. Through the establishment of a TCC VA Beach Campus Radiography Club, the graduating class may fundraise to cover program pinning expenses for students. Information will be provided at the appropriate time.

The pin is a symbol of accomplishment in completing the program at TCC. It is an honor that a graduate should be proud to wear. It is highly recommended that the student participates in the Pinning Ceremony as a way of being formally recognized as a graduate of the TCC Radiography Program.

Any student who does not complete all didactic and clinical requirements of the program by the spring semester will not be eligible to receive a pin at the ceremony. These students will be recognized but not pinned.



Award Plaques

Outstanding Radiography students will be recognized during the Pinning Ceremony. The TCC Radiography Club donates the first place TCC Award of Excellence, the second-place award is donated by the Class of 2008 in memory of student William Harold Smith II, the third-place award is donated by Bon Secours Maryview Medical Center in memory of retired clinical instructor Johanna L. Howell, and the fourth-place Priscilla Buford Award is donated annually by an area administrator. An Attendance Award will be given by the TCC Radiography Program to any deserving graduate who has maintained perfect clinical attendance for the entire two years of clinical education!!!

The criteria that will be considered when choosing the recipients of the awards will include: overall clinical performance, professionalism, grade point average, and participation in professional activities and committee work.

Clinical Characteristics for Award Recipients

The "Overall Clinical Performance" portion of selecting the award recipients is voted on by the hospital's department technologists as well as the clinical instructors, radiology faculty and fellow students. The following outlines the characteristics desired:

I. PROFESSIONAL ATTRIBUTES

- Conducts self professionally.
- Displays a professional attitude.
- Has high standards of professional ethics.
- Has a professional appearance.
- Shows respect for staff, physicians and peers.

II. PATIENT CARE

- Shows concern and empathy for patients.
- Communicates well with patients.
- Demonstrates competent patient care skills.
- Keeps patient information confidential.

III. TECHNICAL ABILITY

- Demonstrates competent positioning skills.
- Demonstrates skill in selection of technical factors.
- Is capable of improvising to obtain necessary radiograph.
- Combines speed with accuracy to produce quality radiographs.
- Possesses good organizational skills.

IV. DEPENDABILITY

- Is prompt and reliable in attendance/assigned area.
- Is assertive and eager to assist and/or perform procedures.
- Is reliable in carrying out assigned tasks.
- Reacts appropriately in acute situations.
- Seeks assistance if in doubt.

Note: Transfer or returning students, students who have been placed on probation for any clinical infraction, regardless of the reason (s), or students who will not complete the Program on time are all ineligible to receive an award and their names will not appear on the ballots. Students returning from a previous class will also be ineligible to receive an award.

WILLIAM HAROLD SMITH II AWARD CRITERIA

The Great Eight

William Hal Smith was a student of the Class of 2008. He completed the first semester of the program in the Summer of 2006. He was assigned to Sentara Norfolk General Hospital for his first year of clinical training. Hal passed away March 11, 2007.

The Norfolk General clinical instructor reported that Hal approached each day with enthusiasm and a deep desire to learn. He was a team player and always willing to go the extra mile for his patients. Even though he was in pain, he did not share this with anyone and just kept plugging away at learning new equipment and technology, new medical terminology, patient care skills, positioning and setting technical factors for image production, and all the detailed requirements to successfully complete the semester for TCC. It was not until he completed the Fall 2006 semester that he sought out medical treatment. In his eyes, his commitment to learning came first.

Although Hal was too sick to return to clinical and class for the Spring 2007 semester, he tried to keep up with the didactic requirements by studying at home. He was truly committed to his choice for a career in Radiography and did everything possible to make it happen. Even as his illness became critical, he tried to continue. Unfortunately, completion of the program was not meant to be.

In honor of William Hal Smith II, his classmates established an award that will be given by the TCC Radiography Program each year to the graduating student that consistently meets the standards for the Great Eight consistent with Hal and his professional and academic commitment.

The Great Eight

- Demonstrates knowledge of the field
- Communicates that knowledge in an effective and organized manner
- Contributes to a positive learning environment
- Shows respect and concern for patients, fellow students, and faculty
- Inspires enthusiasm for learning
- Demonstrates high expectations for own performance
- Serves as a Role Model for other students
- Demonstrates academic leadership

SCHOLARSHIPS

Special scholarships are available for Radiography students who qualify through the ASRT and VSRT. General scholarship information is available at <https://www.tcc.edu/paying-for-college/scholarships/>

PROGRAM COMPLETION

Completion Criteria

The radiography curriculum is structured for completion in two years (six consecutive semesters), provided the student successfully completes all didactic and clinical requirements and competency to successfully pass the ARRT Certification exam and gain employment as an entry-level radiographer. It is highly recommended that the student completes the program in two years to provide continuity in the educational process.

Students who voluntarily withdraw from the program for one year, will be required to audit clinical the semester before they wish to re-enter the program. During this audit period, the student will refresh their clinical skills to prepare for re-entry. It is strongly recommended that the student resume the curriculum sequence the year after voluntary withdrawal. Longer periods out of the program will require re-enrollment from the beginning. Re-admission to the program is dependent upon the availability of clinical and lab space.

All students applying for re-admission for the first or second semesters of the program will be compared to new applicants in terms of the admission points required for acceptance. If there are higher qualified new applicants, they may be accepted before the re-applicant. This is to ensure the highest quality academically prepared class for successful completion of the program and preparation for the Registry exam.

Please be aware that Program officials require returning students to take challenge tests in all RAD courses taken the first year before resuming previous place in program (see the Program Re-admission policy).

Withdrawal

Students withdrawn after the College's published withdrawal date for each semester will receive a grade of F except under mitigating circumstances, which must be documented. Students should withdraw from the Program by the College's published withdrawal date each semester to avoid academic penalty. After the deadline, students who are withdrawn from the Program due to clinical probation, poor clinical performance, issues or problems that severely impact patient care and safety will receive a grade of F.

Any student who decides to voluntarily withdraw from the program must submit a written notice to the program director and must withdraw from all classes to avoid a letter grade of F. If the student neglects to withdraw, this lack of responsibility could prejudice the student's return to this or any other program in the college.

Students who voluntarily withdraw from the program, may be considered for acceptance into the next class in accordance with the Program Readmission Policy (Appendix E). Depending on the severity of the infraction and the impact on patient care and safety, students withdrawn due to clinical probation, poor clinical performance, issues or problems may not be considered for readmission into the Program. Students must maintain a curricular grade point average of at least 2.0 to continue in the program.

Final grades of D or lower in any RAD curriculum course will result in a student's withdrawal from the program by the director. This includes HLT 141 or HLT 143, ENG 111, HLT 150, Math, PSY 230 or social science, SDV, HUM, and BIO 142. A grade below C does not demonstrate competency in course material.

If a student makes a final grade of D or lower in RAD 280, Terminal Competencies in Radiography (6th Semester), the student will be withdrawn from the program, but allowed to repeat the course in the summer semester. If successful at passing the course the second time, the student will be allowed to graduate at the end of the summer semester. If unsuccessful at passing the course the second time, withdrawal from the program will occur for a second time. Students who are withdrawn from the program for a second time will not be allowed to return.

DISMISSAL

The Program Director reserves the right to terminate a student's enrollment at any time because of unsatisfactory work, poor or substandard clinical performance, attendance or conduct, in accordance with the program rules and regulations. Depending on the severity of the infraction and the impact on patient care and safety, students dismissed due to clinical probation, poor clinical performance or issues, may not be considered for readmission into the Program. If the dismissal from the program occurs after the College's published date to withdraw without an academic penalty, the student may be issued an **F grade** and may be denied re-entry into the Program.

Governance

Student Advisory Committee

Mission & Purpose

Elected by their fellow class members, in September of the Freshman year, prior to the Rad Club ratification date, these students will represent the class at large to provide input into all matters of "program governance". The committee will function as a liaison between the members of the class and program officials and other communities of interest.

The committee will be comprised of these officers:

Chairperson - will lead and direct the activities of the committee, and will function as the spokesperson to report committee activities to program officials. The chairperson will gather input from the class to formulate the agenda for committee meetings. He/she will also attend the annual Radiography Program Advisory Committee meeting and call for other committee meetings as program matters dictate. The Chairperson will serve as the Vice President of the Radiography Club during the freshman year, and as the President of the Radiography Club as a Senior student. The Club duties as described in the Club Constitution and by-laws.

Recording Secretary - will be responsible for recording activities of the committee and providing meeting minutes to class members and program officials. This may be accomplished by providing the minutes via email, or by posting minutes on the Clinical Student Forum on Canvas. The secretary will also be responsible for designing and distributing surveys to class members to gather opinions and input regarding policy, procedure and other matters of program governance. Data from class surveys shall be used to represent opinions of the class at large and will factor into all final decisions and recommendations made by the committee.

Parliamentarian - will function as a mediator for concerns brought by class members regarding any didactic or clinical program matter. In some cases, the parliamentarian may have to speak to the class as a group to clarify any misconceptions or discrepancies. The parliamentarian will promote harmonious relationships between student members themselves and between students and program officials.

Class Treasurer- will be responsible for keeping accurate financial records for the purpose of tracking Class dues and fund-raising activities. They will serve as the Secretary of the Radiography Club as a Freshman and as the Treasurer of the Radiography Club as a Senior student. As Rad Club Treasurer, the Treasurer will prepare a budget and request funds from the student federation for the benefit of the students in the Rad Club.

Student Advisory Committee Governance Guidelines

All issues brought before program officials for discussion and possible policy modification shall be a representation of the class majority. Therefore, the following steps should be followed when presenting issues to be considered for adoption or change:

1. All requests must be presented in writing and should state the issue to be addressed, a rationale of the proposed change, and a possible solution or draft of the proposed change.
2. All pending issues must be presented to and voted upon by the class members.
3. Student Advisory Officers must submit a signed petition, survey result or other evidence of a class majority vote before program officials will initiate a policy or procedure change.

Depending on the nature of the issue, students should understand that the “Communities of Interest” supporting the program must sometimes be consulted to ensure that any proposed change would be in the best interest of the educational process and would not be in conflict with the program’s mission, goals, and expected outcomes. Communities of interest include the program’s Clinical Instructors and Advisory Committee, and the college’s Curriculum Committee.

Most policy and procedure changes are discussed and voted upon at the Clinical Instructor’s meetings which occur once around mid-term or later, each semester. The Student Advisory Committee should consider this time frame when submitting requests for consideration, since most all issues would require approval at these meetings.

Students will be informed of any policy changes in the form of an addendum to the RAD Student Handbook within 2 weeks following approval of the change by program officials and/or clinical faculty and communities of interest.

The radiography program maintains a club that is part of the TCC Student Federation. Students in the program are encouraged to join and participate in the RAD Club.

<https://www.tcc.edu/come-to-tcc/virginia-beach-campus/clubs-organizations/#radiography-club>

Commencement

The college holds two formal commencement ceremonies each year, May and December, for students completing one- and two-year curricula. Attendance at a formal commencement ceremony is required unless special permission to be absent is obtained from the president or their designee. Caps and gowns for commencement will be ordered and purchased through the campus bookstore at a nominal fee.

A student is not permitted to participate in a commencement ceremony before completion of study in a program; instead, he or she will be required to participate in the next scheduled commencement after completion of program requirements.

REGISTRY EXAMINATION, CERTIFICATION THROUGH THE ARRT

Upon completion of the Radiography Program, each student is eligible to apply to sit for the examination given by the American Registry of Radiologic Technologists® (ARRT). The examination information application instructions will be given to students in the last semester of the program. It is highly recommended that graduates sit for the examination as soon after graduation as possible. Students need to verify the ethics requirements carefully, and if they have any ethics violations, they will need to submit a written personal explanation and documentation of the infraction and its resolution along with the application. The ARRT exam is computerized. Students will schedule a date with the Pearson VUE Test Centers, the closest of which are located in Chesapeake or Newport News.

The applicant will be issued a Candidate Status Report from the ARRT with a 365-day window. The candidate may schedule the ARRT examination at any point within that window at a test center that has an opening. The examination fee is \$225.00. <https://home.pearsonvue.com/>

ARRT Three Attempt, Three Year Limit

Candidates are allowed three attempts to pass a certification and registration exam. They must complete the three attempts within a three-year period of time that begins with the initial ARRT examination window start date. After three unsuccessful attempts or three years have expired, the individual is no longer eligible.

ARRT Exam Pre-Application

Eligibility for certification requires that the applicant be of good moral character. **Conviction of a misdemeanor or felony** may indicate a lack of good moral character for ARRT purposes. The ARRT conducts a thorough review of all convictions to determine their impact on eligibility. Documentation required for a review includes a written personal explanation and court records to verify the conviction, the sentence, and completion of the sentence.

Individuals may submit a Pre-application to have the impact of convictions on eligibility evaluated. Pre-Application Review Forms may be requested from the Department of Regulatory Services at the ARRT office or accessed at the web link. The phone number is (651) 687-0048. The ARRT will charge a substantial fee for the pre-application and it must be completed at least 6 months prior to applying for the registry. For more information about the pre-application process, visit: <https://www.arrt.org/pages/ethics-review>

HEALTH PROFESSIONS DIVISION POLICIES

Criminal Background, Sex Offender, Fraud and Drug Screen Policy

Health Professions students assigned to clinical rotations are responsible for completing the required background/sex offender checks, fraud, and drug screening tests by the assigned due date. Students are required to bear the costs of such tests.

Tidewater Community College does not assume any responsibility for obtaining or evaluating the results of a criminal background check, fraud, drug screen or other check, maintaining the records of results or for delivering them to clinical sites. Occasionally, the human resources department of a clinical site may ask for the results of one of these screenings, and it will be the responsibility of the student to provide them to the medical facility that asks for them.

Students are also reminded that licensing boards for certain health care occupations and professions may deny, suspend or revoke a license or may deny the individual the opportunity to sit for an examination if an applicant has a criminal history or is convicted or pleads guilty or *nolo contendere* to a felony or other serious crime. Successful completion of a health professions program of study at Tidewater Community College does not guarantee licensure, the opportunity to sit for a licensure examination, certification, or employment in the relevant health care occupation.

Criminal Background, Sex Offender, Fraud and Drug Screening Records

The Health Professions Division has a contract with **CastleBranch.com**, to conduct the criminal background/sex offender, fraud and drug screens on all students. The cost is currently \$95.00. Students will complete the criminal background/sex offender, fraud and drug screen prior to the program start date as a condition of program acceptance. The clinical coordinator will access a status report confirming that the student has completed the screenings and has a “green” light which indicates the student is cleared for clinical. It is each student’s responsibility to obtain official clearance from the ARRT, CHKD, or their specific clinical site’s Office of Human Resources for permission to do a clinical rotation at that site if their report comes back with anything other than a green light. This clearance must take place prior to the start of the program. See appendix E for the CastleBranch.com form.

Since a two-week CHKD rotation is a Radiography Program requirement, any student who is unable to go to CHKD, due to the screening results, will not meet the program graduation requirements, and will be denied program entry. Students may reapply the next year and retake the Criminal Background/Sex Offender, Fraud and Drug Screenings and if they are acceptable at that time, may be admitted.

Students may be required to submit to random or routine drug screening tests at any time prior to beginning the program or during enrollment. Students who refuse the drug screening will not be allowed to continue in the program.

VIRGINIA STATE LICENSURE

In addition to certification by the ARRT, technologists in the state of VA who work outside of a hospital facility must obtain a license to practice Radiography from the Virginia Board of Medicine. To apply for the license, call (804) 662-9908 or apply on the web site: http://www.dhp.virginia.gov/medicine/medicine_forms.htm#RadTech

STUDENT RECORDS

Access to, Challenge of, Release of, & Complaints Regarding Grades and Records:

The College and the program follow FERPA Guidelines to protect student records and confidential information. The policy governing access to, challenge of, release of, and complaints regarding student records and grades is on file in

the Admissions and Records Office, Dean of Student Services Office. Students are encouraged to become familiar with this policy. <https://www.tcc.edu/about-tcc/statements-policies/ferpa/>

Most student clinical files are electronic and are accessed by the individual student and password protected. All student physical clinical files and records are kept in a locked cabinet at each clinical facility under the close supervision of the clinical instructor. The file cabinet remains locked at all times.

All students have the right to examine their own records but do not have the right to have access to other student's records. When a student desires to review their paper clinical records, they will be permitted to view their own records in the presence of the clinical instructor. Access to online records is available 24 hours a day with an internet connection and a program provided password. Students and instructors are not to share their passwords to keep student records confidential.

STUDENT EMPLOYMENT AS A RADIOGRAPHER

As a radiography student, you may be approached by the staff in your clinical site, and encouraged to apply for a position as Radiographer Assistant. These positions are occasionally offered to senior students in the Radiography Program. Students are not prohibited from seeking employment as a radiographer during their own time. Please be advised that the program faculty does not condone student employment as a radiographer. In the event you do become employed as a Radiographer Assistant, please adhere to the following set of guidelines:

1. Accept employment after completion of RAD courses 121, 221, 141, 142 and 190.
2. Hours scheduled as Radiographer Assistant must not interfere or overlap in any way with your scheduled clinical hours as a student in the program. Students may not receive monetary compensation for any hours which are considered part of clinical time in the RAD Program. Students may only be paid by the hospital for hours worked outside of scheduled clinical hours.
3. Hours scheduled as Radiographer Assistant must not interfere or overlap in any way with your scheduled classes as a student in the program.
4. Secure a position where you will work with at least one other registered radiographer. When alone, you may encounter situations which might be beyond your present capabilities. Do not attempt to perform procedures where you do not feel comfortable. Always obtain assistance when in doubt.
5. The radiation dosimeter that is provided by the college must **not** be worn during employment as a radiographer. Students should use a separate radiation dosimeter provided by the employer.
6. Program faculty and clinical instructors will not provide written or oral recommendations before the student is Registry eligible.
7. Please be advised that your clinical schedule cannot be altered to accommodate your work schedule. You are expected to be in attendance as scheduled by the clinical instructor.
8. Students are not permitted to do competencies or performs when working as staff technologists or as paid student assistants.

PROGRAM COMPLAINT RESOLUTION POLICY

TCC's Radiography Program operates under the "Standards for an Accredited Program in Radiologic Sciences" found at: <http://www.jrcert.org/programs-faculty/jrcert-standards/>. The program is fully accredited and is in good standing with the Joint Review Committee on Education in Radiologic Technology (JRCERT) and makes every effort to comply with the "Standards" to promote excellence in education.

In the event a student has a complaint or an allegation that the program is in non-compliance with the JRCERT Standards, the student will follow these steps to ensure timely and appropriate resolution of the problem.

1. The student must notify the Program Director and/or the Clinical Coordinator to inform them of the allegation or complaint in writing. The Program Director and Clinical Coordinator will attempt to resolve the issue to the satisfaction of the student within 10 working days of when the written claim is received.
2. If the Program Director and Clinical Coordinator are not successful at resolving the issue, the student must then consult with the Health Professions Pathway Dean within 10 working days, and submit the complaint in writing. The Pathway Dean will attempt to resolve the complaint within 10 working days of when the written complaint is received.
3. If the Pathway Dean does not resolve the issue to the satisfaction of the student, the student should consult with the Dean of Students within 10 working days, and submit the complaint in writing to him/her. The Dean of Students, in conjunction with the Pathway Dean and/or Program Director will attempt to resolve the issue within 10 working days.
4. If the issue is still not resolved, the student should contact the Joint Review Committee on Education in Radiologic Technology if they feel that the Program is in Non-compliance with the "Standards".
<http://www.jrcert.org/students/process-for-reporting-allegations/>

JRCERT

20 N. Wacker Drive

Suite 2850

Chicago, IL 60606-3182

Phone: (312) 704-5300 Fax: (312) 704-5304 E-mail: mail@jrcert.org

The JRCERT will act only when practices or conditions indicate the program may not be in substantial compliance with the "Standards" or may not be following JRCERT accreditation policies

Student Complaint Policy

The full text of **TCC Policy 2210, Student Complaint Process** can be found on TCC's website using the following link:
<https://www.tcc.edu/wp-content/uploads/archive/policies/tcc-policy-2210.pdf>

Equal Opportunity and Nondiscrimination Policy

The full text of **TCC Policy 1200, Equal Opportunity and Nondiscrimination** can be found on TCC's website using the following link: <https://www.tcc.edu/wp-content/uploads/archive/policies/tcc-policy-1200.pdf>

CLINICAL EDUCATION



COMPETENCY EVALUATION RATIONALE

The main purpose of clinical education courses in any radiography program is to affect the transfer of knowledge from theory to the actual acquisition of skills in clinical diagnostic radiography to a level of job entry competency upon graduation.

Integration of Didactic and Clinical Education

- This is accomplished by a continuum of clinical assignments in all aspects of diagnostic radiographic procedures, correlating them as closely as possible to classroom and laboratory experiences.
- Each clinical instructor has access to the Rad Forum on Canvas which houses all radiography course outlines (syllabi) for easy reference.
- Frequent clinical instructor meetings; communication between instructors and department staff; program officials clinical visits; communication through email memorandums, and via the telephone; Canvas and online clinical management system.
- RAD 120 (first semester Summer): patient care lab to learn and practice skills such as taking vital signs, patient transfer, care of patient medical equipment, sterile technique and basic chest and abdomen positioning. Clinical policies, procedures and the program's clinical competency system are all introduced. Multiple phantoms and student patient scenarios are used to reinforce patient care skills.
- RAD 141 (first semester Summer): imaging lab to learn and practice psychomotor skills and imaging techniques, using a conventional screen/ film system with an automatic processor, a CR imaging system, a DR system and PACS. In addition, students complete journal article summaries based on imaging topics relevant to clinical practice. Homework assignments focus on analyzing radiographic images and concepts to assess radiographic quality.
- RAD 120 & RAD 141 prepare students for RAD 131-Elementary Clinical Procedures in second semester (Fall)
- RAD 121 (second semester Fall): procedures lab introduces students to the basic positioning of the chest and abdomen, upper and lower and limbs, pelvis and fluoroscopy. Class reinforces the anatomy demonstrated on the images, and patient preparation for radiographic examinations.
- RAD 142 (second semester Fall): imaging lab to reinforce imaging principles, techniques, and conduct quality control testing using a conventional screen/ film system with an automatic processor, a CR imaging system, DR and PACS. In addition, students are required to complete clinical assignments based on topics studied in class.
- RAD 132- Elementary Clinical Procedures II-(third Spring Semester)-clinical incorporates all course work
- RAD 221 (third semester Spring): procedures lab introduces students to the basic positioning of the spine, bony thorax, head, pediatrics, mobile and trauma. Class reinforces the anatomy demonstrated on the images, and patient preparation for radiographic examinations.
- RAD 205-(third spring semester) provides students with the knowledge to use radiation safely. Teaches radiation dose limits, protects patients and coworkers.
- RAD 190-Coordinated Internship in Radiography-(fourth summer semester)-clinical incorporates all coursework
- RAD 245-(fourth summer semester) Studies clinical specialty areas such as CT, MRI, ultrasound, nuclear medicine, oncology, mammography, and interventional radiology and integrates didactic concepts and clinical practice. May utilize ASRT online course modules.
- RAD 231-Advanced Clinical Procedures I-(fifth fall semester)- clinical incorporates all coursework
- RAD 206-(fifth fall semester)-presents the pathologies of body systems and their radiographic presentations
- RAD 255-(fifth fall semester)-studies principles and operation of general and specialized X-ray equipment. Familiarizes the student with radiographic equipment design, operation and maintenance. Integrates digital radiography systems and PACS into the curriculum.
- RAD 232-Advanced Clinical Procedures II-(sixth spring semester)-clinical incorporates terminal comps

- RAD 280-(sixth spring semester) capstone course reiterates all courses, and prepares students for entry into the workforce and to pass the ARRT certification exam

To measure students' ability to perform satisfactorily, a method of evaluation has been established by the American Society of Radiologic Technologists® (ASRT) and accepted by the Joint Review Committee on Education in Radiologic Technology® (JRCERT). It has been revised slightly to meet the particular needs of this program. Its ultimate goal, however, does not differ from the philosophy of the two agencies listed above, that is, to graduate competent radiographers, with critical thinking and problem-solving skills, who can perform at levels expected by prospective employers.

Students must realize that a radiographic image and the performance of the student during a particular diagnostic exam, are not the only aspects of clinical education that must be evaluated.

The following play an important role in the overall performance of a student in clinical education courses and are evaluated at least twice per semester.

- Attendance
- Punctuality
- Personal appearance
- Professionalism
- Affective Domain Attributes
- Interpersonal relationships with patients, health care professionals, and other students

STUDENT RADIOGRAPHER'S RESPONSIBILITIES

To the Patient:

- Responsibility for a patient's care should be of the utmost importance to the student radiographer. Under no circumstances should a student ever be guilty of causing a patient unusual physical or mental discomfort that could be prevented by technical skill, attentiveness and empathic understanding.
- It is every patient's right to be treated with all humanity and compassion. Although a certain amount of professional firmness is necessary, this should never be permitted to degenerate into rudeness. Reasonable indulgence should be accorded for the whims of the sick, especially to those whose mental powers have been affected.
- The patient and student radiographer relationship should not develop into an intimate one. Confidential interactions between the patient and student should be held with the highest regard to discretion and respect. No physical or mental infirmities, character flaw, personal or domestic problems should ever be divulged by the student unless a situation occurs and makes this information vital. This obligation of secrecy extends beyond the completion of technical services. Whether within or outside hospital boundaries, patients and their affairs should not be a topic of conversation between students and their associates.
Adhere to published HIPAA Guidelines.
- Question and document per department protocol pregnancy status and date of the LMP of all female patients between the age of **10 yrs. and 60 yrs.**
- Refrain from the abusive or disrespectful language (i.e. profanity, rude remarks) in the clinical setting.
- *Students must **Not** release a patient from the radiology department without clearance or direction from a technologist, floor supervisor or instructor.*

- Students **Must** perform radiographic procedures on the correct patient. Identify the correct exam on the correct patient physically and electronically each and every time. This extends to releasing the patient's images to the PACS system.
- Identify patient images using the correct lead marker when performing radiographic procedures.
- Be cognizant of their needs, never leave the patient unattended without sufficient immobilization, make sure they are warm and as comfortable as possible.

To the Physician:

- The student should accurately carry out the physician's order to the best of their ability.
- The student should never indicate a preference for the services of any physician to a patient.
- The student should never criticize or discuss a physician and their practices with a patient or the patient's family.
- Interpretation of radiographic and fluoroscopic images is the physicians' responsibility.
- The student will never assume this responsibility or express any opinion involving the patient's diagnosis or treatment to the patient.
- Due to the physician's higher professional position, the student should always display the appropriate amount of respect and consideration.

To other Radiographers:

1. The relationship of one radiographer should be that of joint cooperation in obtaining the best radiographic examination possible of each patient. This requires:
 - a. Recognition and appreciation for the special contributions of fellow radiographers.
 - b. Understanding co-workers' limitations and inadequacies when these are present and doing one's best to guide and assist as appropriate.
 - c. Refraining from unconstructive criticism and gossip.
 - d. Demonstrating respectful behavior towards hospital employees, medical staff, clinical instructors and TCC Program officials.
 - e. Accepting assignments / instructions from the floor supervisor, clinical instructor or assigned radiographer if capable of performing / assisting with the exam if supervision is available.
 - f. Preventing accidental radiation exposure to a technologist by adhering to ALARA at all times.
2. The dignity and unity of radiography requires a mutual respect and continuous cultivation of a courteous recognition of all other radiography schools and hospitals in good standing.

To the Profession and Oneself:

The student has a definite obligation to uphold the profession's dignity and honor in his or her personal and professional life. The students' standards should enhance and promote the status of both, consequently benefiting society. This implies that the radiographer:

1. Identify themselves as a member of a JRCERT accredited program or as a registered radiographer.
2. Practice radiography in accordance with recognized and accepted criteria.
3. Actively support and co-operate with the local, state, and national societies whose goal is to advance the quality of radiology.
4. Persistently seek out and learn more through programs designed to better the art and science of radiology.

5. Strive to maintain themselves in the best physical and mental health possible, so that optimum efficiency, professionalism, and social and economic security will occur.
6. Respect the dignity and individuality of every human being regardless of race, creed, color, nationality, sexual orientation, religion, economic or other status, and be willing to serve and co-operate with all as needs require.

RADIOGRAPHY STUDENT'S PROFESSIONAL GUIDELINES

1. Disrespect to a patient may be grounds for immediate dismissal from the program.
2. As a student, refrain from the possession of drugs, liquor, weapons or firearms or engaging in their use while on the hospital or college premises.
3. Patient confidentiality must be adhered to at all times. Adhere to published **HIPAA** Guidelines.
4. Patients are not permitted to review their radiographs or computer images unless authorized by floor supervisor or radiologist.
5. Courtesy and cooperation are trademarks of the profession. Respect patients, technologists, nurses, doctors, visitors, and fellow students.
6. Immaturity does not belong in this program or profession. Set good examples for others to follow. Be on time for class and clinic. Listen and learn.
7. Appropriate titles, such as Dr., Mr., Mrs., Ms., etc., will be used.

CLINICAL PREPARATION

During the first semester of the program, students are enrolled in courses that will prepare them for their initial encounter in the hospital radiology department. The student will learn such topics as CR/DR/PACS, console exposure setting manipulation, overhead tube operations; patient lifting, handling and care, vital signs, venipuncture and drug administration, ethics and professionalism; general department knowledge; basic radiation protection techniques; basic chest & abdominal positioning & techniques; rules and regulations of the clinical portion of student education. Students will also attend OSHA and HIPAA training sessions and complete Mandatory Orientation and Clinical Education Modules.

CLINICAL COURSE OVERVIEW

Second semester, the first of five clinical courses, Elementary Clinical Procedures begins. The student is also enrolled in Radiographic Procedures I. In this course, students engage in laboratory sessions in which they demonstrate in role-playing activities, the correct radiographic positioning procedures. This will be done under supervision of the college instructor. If performed satisfactorily, the student will be permitted to perform the learned exams within the clinical setting under the direct supervision of a clinical instructor or staff technologist. The student will not be able to perform any radiographic procedure in the clinical setting until that procedure is checked off in the laboratory portion of education. This does not imply the student cannot assist the technologist in the performance of these procedures.

The majority of time spent in the first clinical course consists of a transition from an observation, or passive role, to an active and participatory one of assisting the radiographer in performing the radiographic exams. During Coordinated Practice the student is under direct supervision until competency is achieved. Once competency has been achieved for a given exam, the student may work under indirect supervision in performing that procedure.

Beginning with the third semester of Coordinated Practice (summer semester) the student is under indirect supervision as long as a competency has been achieved in a given procedure. If a competency has not been achieved, the student is under direct supervision. The clinical instructor or supervising technologist must monitor the student's Clinical Tally Sheet indicating the student was either under direct or indirect supervision for the exam. Students must never be left alone to perform exams in remote areas or routinely left unsupervised in the radiology department. The JRC **direct and indirect supervision** policies outlined in this section of the handbook must be **strictly adhered to** and enforced.

JRCERT DEFINITIONS OF "DIRECT AND "INDIRECT" SUPERVISION

Direct Supervision:

Until a student achieves and documents competency in any given procedure, all clinical assignments shall be carried out under the **direct supervision** of registered radiographers. The parameters of direct supervision are:

1. A registered radiographer reviews the request for examination in relation to the student's achievement.
2. A registered radiographer evaluates the condition of the patient in relation to the student's knowledge.
3. A registered radiographer is present during the conduct of the examination.
4. A registered radiographer reviews and approves the images.

In support of professional responsibility for provision of quality patient care and radiation protection, unsatisfactory radiographs or images shall be **repeated only in the presence of a registered radiographer**, regardless of the student's level of competency. **Direct supervision is required on all surgical and mobile procedures.**

Indirect Supervision:

After demonstrating competency, students may perform procedures with indirect supervision.

Indirect supervision is defined as that supervision provided by a registered radiographer **immediately available** to assist students regardless of the level of student achievement.

"Immediately available" is interpreted as the presence of a registered radiographer adjacent to the room or location where a radiographic procedure is being performed. This does not mean that the technologist is available by telephone, text, beeper or departmental intercom. It means that registered technologist is **physically within earshot** of the student performing the exam. Physically - means the technologist is available immediately. This availability applies to all areas where ionizing radiation equipment is in use.

If a student is employed as a Radiography Student Technologist they can not complete performs or competency with a radiography student or supervise repeat images on another student's image.

CLINICAL COURSE OBJECTIVES

For five semesters in the Radiography Program, the student attends clinical educational sites to:

1. Acquire expertise and proficiency in a wide variety of diagnostic radiographic procedures by applying classroom theory to actual practice of technical skills on specified levels of competency.
2. Develop and practice professional work habits and appropriate interpersonal relationships with patients and other members of the health care team.
3. Achieve competency in critical thinking and problem-solving skills.

NOTE: Comprehensive clinical course objectives are outlined in each clinical semesters course outline (syllabi).

CLINICAL EDUCATION CENTERS

<u>Chesapeake Regional Medical Center</u> 736 Battlefield Boulevard Chesapeake, VA 23320 757-312-6124 18 miles from campus	<u>Sentara Independence Advanced Imaging Center</u> 800 Independence Boulevard Virginia Beach, VA 23455 757-363-6100 10 miles from campus	<u>Maryview Medical Center</u> 3636 High Street Portsmouth, VA 23707 757-398-2465 18 miles from campus
<u>Sentara CarePlex Hospital</u> 3000 Coliseum Drive Hampton, VA 23666 757-736-1620/1635 38 miles from campus	<u>Sentara Leigh Hospital</u> 830 Kempsville Road Norfolk, VA 23502 757-261-6870 8 miles from campus	<u>Sentara Norfolk General Hospital</u> 600 Gresham Avenue Norfolk, VA 23507 757-388-5162/3865 16 miles from campus
<u>Sentara Princess Anne Hospital</u> 1925 Glenn Mitchell Drive Virginia Beach, VA 23453 757-507-1200/1171 1 mile from campus	<u>Sentara Virginia Beach General Hospital</u> 1060 First Colonial Road Virginia Beach, VA 23454 757-395-8085 14 miles from campus	<u>Children's Hospital of the Kings Daughters</u> 800 Children's Lane Norfolk, VA 23507 757-668-7250/9290 16 miles from campus
<u>Sentara Port Warwick</u> 1031 Loftis Blvd. Newport News, VA 23606 757-736-9713 37 miles from campus	<u>Jordan Young Institute</u> 5716 Cleveland St, Suite 200 Virginia Beach, VA 23462 (757) 490-4802 8 miles from campus	

All program clinical sites are accredited by the Joint Commission, DNV-GL (Det Norske Veritas), or a mechanism acceptable to JRCERT. This is evidence that medical and hospital personnel are in compliance, assuring patients that these hospitals meet designated standards.

CLINICAL ROTATION ASSIGNMENTS

Students enrolled in the TCC Radiography Program will rotate through two clinical sites and will be assigned based on location, learning styles and various other factors by the clinical coordinator in consultation with the program faculty. Therefore, all enrolled students must be willing to attend clinical at any of the program's hospital affiliates. Students may submit a request to the clinical coordinator for their clinical rotation at a trauma hospital for either their first or second year of clinical training.

Students will remain at the same hospital for the fall (2nd), spring (3rd) and summer (4th) semesters. Rotation to another hospital will take place at the beginning of the fall (5th) semester. The student will remain at the second clinical site for the spring (6th) semester. All students will rotate through two different hospitals over the course of the two-year period:

1st rotation	Fall and Spring	2 days per week (T & R)
	Summer	3 days per week (T/W/R)
2nd rotation	Fall	3 days per week (M/W/F)
	Spring	3 days per week (M/W/F)

Students rotate to their second clinical education center in the fall (5th) semester of their second year and will be informed of the clinical rotation assignment at least four weeks prior to the time of rotation. Students will rotate to two of the clinical affiliates during the two-year training period. Depending on enrollment or other circumstances, and at the discretion of program officials, students may be reassigned.

The facility (clinical site) reserves the right to request that the College withdraw from the affiliation any student whose health or performance is a detriment to patient well-being or to the achievement of the stated objectives of the affiliation. Any student dismissed by a hospital affiliate representative will be required to confer with the program director and clinical coordinator to decide whether the student will remain in the program. The student may withdraw without academic penalty prior to each semester's deadline date published by the College in each Semester's Class schedule. Depending on the reason for the dismissal and the impact on patient care and safety, students withdrawn from a clinical site may be immediately withdrawn from the Program. If the withdrawal from the program occurs after the College's published date to withdraw without an academic penalty, the student will be issued an F grade and will be denied re-entry into the program.

CLINICAL HOURS

Regular attendance is essential at each of the clinical sites in order for a student to successfully complete program requirements. Students are expected to report to the clinical facility promptly, in an alert condition, and be ready to begin their clinical rotation at the designated starting time. Habits of promptness, reliability and responsibility are inherent in professional behavior. Violations will result in warnings. The student will attend the assigned clinical area on Tuesdays and Thursdays during the second & third semesters. From the fourth through the sixth semesters, the student will attend the clinical areas on Mondays, Wednesdays, and Fridays with a modification during the fourth semester of Tuesdays, Wednesdays and Thursdays. Beginning in the fourth semester of clinical and extending through the sixth semester, the student will be given assigned weekend and evening shifts on a rotation basis. Clinical hours are 7:30 a.m. to 4 p.m. unless otherwise specified by the clinical instructor. Students have the option to start earlier during OR/portable or fluoroscopy rotations to obtain invaluable experience in these areas under a registered technologist's supervision. Evening and weekend hours are from 2:00 p.m. to 10:30 p.m. or 2:30 p.m. to 11:00 p.m.

CLINICAL HOURS PER SEMESTER / TOTAL

2nd-Fall Semester	2 days (8) hrs =16 hrs/wk x 15 wks = 240 hours/semester
3rd-Spring Semester	2 days (8) hrs =16 hrs/wk x 15 wks = 240 hours/semester
4th-Summer Semester	3 days (8) hrs =24 hrs/wk x 10 wks = 240 hours/semester
5th-Fall Semester	3 days (8) hrs =24 hrs/wk x 15 wks = 360 hours/semester
6th-Spring Semester	3 days (8) hrs =24 hrs/wk x 15 wks = 360 hours/semester

Total Clinical Practice Hours for the Program: 1440 hours

CLINICAL POLICIES

TCC Policies and Procedures

Students are responsible for being aware of the policies, procedures and student responsibilities contained within the current edition of the Tidewater Community College Catalog and Student Handbook. Students should familiarize themselves with the College's policies regarding academic misconduct and inclement weather as well as all emergency and safety procedures found in Student Handbook section of the Catalog. The Student Handbook can be found at: <https://www.tcc.edu/service-support/student-handbook/> and the Catalog is located at: <https://www.tcc.edu/academics/catalog/>

Additional Clinical Hours

Students are encouraged to put in additional clinical hours when the college is open. Students must schedule the extra time with the approval of their clinical instructor, and attend at their assigned clinical site. Students will be able to complete "performs" and "comps", when coming in for additional hours. Students can only perform additional hours at the clinical site when a clinical course is in session. Returning to a previously assigned clinical site is only permitted to complete specialty rotations, extra clinical time in diagnostic radiography is limited to the current clinical site.

Excessive Clinical Time Missed

As per College policy if more than 15% is missed in any one semester, the student will be withdrawn.

Semester	Hours
2 nd – 4 th	36 hours
5 th – 6 th	54 hours

Depending on the circumstance, the student could be required to repeat the clinical semester, or may graduate at a later date than the rest of the class. However, this is a viable alternative in a situation such as surgery, family crisis, etc.

Cumulative Clinical Attendance Policy

Students must report to the clinical instructor (or supervisor on weekends) at the start of the clinical day. Clinical instructors at each site will designate a **specific computer(s)** for tracking student clinical attendance, tardiness and absences. Students will sign in and out using the electronic time clock system at <https://www.trajecs.com/programs/login.aspx> for attendance and will be verified by the clinical instructors and monitored by Program Faculty. Following midterm in the 2nd semester, failure to clock in or out after three times (or receive more than 3 exceptions in Trajecs) will lead to an Oral Warning.

Trajecsys

Whether students can use their cellphone or use designated computers only is up to the clinical instructor. When clocking in and out students must share their location on Trajecsys. If a student denies Trajecsys their location, students are NOT allowed to use their personal cellphone to clock in and out. Students who block Trajecsys from their location are only allowed to use designated computers in the Radiology Department.

Cumulative Attendance Record System

Regular attendance during scheduled clinical time is expected of all students to meet the established objectives. Students should avoid clinical absences if at all possible to demonstrate dependability and professionalism. The program utilizes a cumulative attendance record system to track student attendance, and warnings are issued for missed clinical days. Absences in excess of 14 days are considered excessive absenteeism, and will result in withdrawal from the program. 14 days is equal to 112 hours of clinical time throughout the two years (2nd through 6th clinical semester). All absences and time missed will be recorded on the student's Cumulative Record of Attendance and Missed Clinical Time forms.

Over the entire length of the program, missed clinical days will be documented cumulatively, and warnings will be issued according to the following schedule:

Clinical Absences	Warning Issued
6 days or 48 hours	Oral Warning - 1 Point Grade Reduction
8 days or 64 hours	Written Warning - 2 Point Grade Reduction
10 days or 80 hours	4 Point Grade Reduction
12 days or 96 hours	Clinical Probation - 5 Point Grade Reduction
14 days or 112 hours	Withdrawal from Program

The Radiography program's cumulative attendance policy with warnings will be applied regardless of the reasons for the absence- ex, surgery, illness, family problems, or pregnancy. However, beginning in the 4th semester, the **specialty competency system** permits students to earn **8 hours** of clinic time for every **three** specialty competencies completed to apply towards missed time. Students may also use any accumulated comp time to apply towards missed time. Students will **not** be required to schedule this time off in advance.

Clinical Make-up Policy

Students who miss more than 10 percent of any one semester due to an extended absence, ex: -surgery, personal (not including seasonal illness) or family illness, may take an incomplete for the semester, and make up the missed time (clinical rotations) with the approval of the Clinical Coordinator. The TCC Radiography Program will make exceptions to the College attendance policy due to Jury duty/ Subpoena, bereavement and required military duty.

Clinical Semester	10 % Missed Clinical Time
2nd and 3rd Semesters	Three days or 24 hours
4th Semester	Three days or 24 hours
5th Semester	4.5 days or 36 hours
6th Semester	6.75 days or 54 hours

Students who are withdrawn from a clinical semester will repeat the semester for a grade (this will probably delay graduation). Students who repeat a clinical semester will revert to the previous semester status - the semester they are repeating. The slate will not be wiped clean and students will resume where they left off! The number of cumulative missed absences will remain in the student's *Cumulative Attendance Record*. In addition, if withdrawn **two** semesters due to poor clinical attendance, program officials will **not** readmit any student to the Program either as a new or returning student.

The clinical coordinator will award professional activity points for good attendance in the calculation of points towards the Annual Pinning Ceremony Program Awards. The Radiography Program will give students an *Attendance Award Plaque* for perfect attendance at the annual Pinning Ceremony.

Clinical Absence

If the student will be absent from clinic he/she must notify the clinical instructor, as per the method requested during clinical orientation (phone, voicemail, text, email), before 8:00am. If your clinical instructor allows texting, be sure to include your name. If the student is unable to notify the instructor, he/she must notify the clinical coordinator or a program official via email or voicemail before 8:00am.

The first time a student is absent and fails to notify their clinical instructor or the clinical coordinator by 8:00 A.M. an oral warning will be issued and 1 point will be deducted from the final clinical grade. The second time the student fails to notify the instructor or coordinator by 8:00 A.M. a written warning will be issued and 2 points deducted from the final clinical grade. The amount of time missed will be documented on the student's Cumulative Record of Attendance and Missed Clinical Time forms.

However, the specialty competency system permits students to earn 8 hours of clinic time for every three specialty competencies completed to apply towards missed time. Students may also use any accumulated comp time to apply towards missed time.

Steps in Reporting Illness

In addition to contacting the Clinical Instructor prior to 8 AM, the student should report any of the following situations:

- If illness is serious or prolonged, or if the student must consult a physician, notify the clinical instructor, clinical coordinator or program director.
- If illness is determined to be contagious, the student is not permitted to attend didactic classes or coordinated practice until the student has a negative test result or doctors note.
- All contagious diseases must be reported to the clinical coordinator or program director.

Calling in Sick: CHKD and Specialty Rotations

Students are discouraged from missing clinical time when rotating through King's Daughters/Specialty areas or when doing their weekend rotation! If it is necessary to miss a day during these rotations, the following steps are to be followed:

- The student must report the illness to his or her clinical instructor by **8:00 a.m.** If the clinical instructor cannot be reached, the clinical coordinator must be notified instead.
- The student must also notify the clinical instructor at CHKD by **8:00 a.m.** Failure to comply with either of the above policies will result in an **oral warning (first offense)**.

- The student will need to obtain permission from the CHKD clinical instructor when the assigned hours vary, and then they must also follow up by communicating with their assigned clinical instructors. An **oral warning** will be issued for the **first** violation of this policy and further warnings issued for subsequent violations.

Evening/Weekend Rotations

- The student must inform their clinical instructor on the day of the schedule change, by **30 minutes** after the start of the shift or an oral warning will be issued
- The amount of time missed will be documented on the student's *Cumulative Record of Attendance and Missed Clinical Time* forms
- The student can contact the Clinical Coordinator, Program Director or Program Faculty if they are unable to reach their clinical instructor.
- Students will be dismissed at the end of the shift by the shift supervisor or designated technologist.

Note: A written warning will be issued to students who leave the clinical site without permission from the clinical instructor or supervisor at affiliate sites.

Appointments

In the case of scheduled appointments, students are advised to notify the clinical instructor in advance of the planned absence and the time missed will be documented on the student's *Cumulative Record of Attendance and Missed Clinical Time* forms. In the event of an unplanned illness or appointment, students must call their instructor by 8:00 am on the missed clinic day. Students will be permitted to apply **8 hours** earned from completed specialty competencies and any accumulated comp time towards missed time.

Bereavement Policy

Students experiencing a death in their family during a clinical rotation will be able to miss clinic day(s) without any cumulative attendance penalties or grade adjustments. The missed time should be documented on their Cumulative Record of Attendance and Missed Clinical Time forms as "bereavement." Students will follow the chart below for how many days they are allowed off for bereavement.

Bereavement Leave	Applicable Situations
3 days	Student's parents, husband, wife, children, brothers, sisters, grandparents, grandchildren, or any relative living in the same household as the student.
2 days	Student's parent-in-law or spouse's stepparent, daughter-in-law, son-in-law, sister-in-law, brother-in-law, niece, nephew. Aunt and Uncle
1 day	Other

Jury Duty / Subpoena Policy

Steps for students to follow if summoned for Jury Duty or if involved in medico legal litigations: First, you may ask the program director to write a letter to the court officials to see if you can be relieved of jury duty if you believe it will have an impact on your clinical attendance and experience. If the response from the court officials is negative, and you must serve as a juror, then these steps will be followed:

- All absences will be counted as "Jury Duty/Subpoena" in terms of attendance. The missed time will be documented, however, cumulative absences and grade penalties will be waived.
- All competencies and clinical requirements must be completed by the end of the semester. Otherwise, students will request an "I" grade (incomplete) until all clinical requirements have been completed for that semester.
- Proof of attendance in court and the hours of attendance (time of arrival, time of dismissal) should be furnished to program officials to be kept on file in the student's permanent record. A copy will be given to the clinical instructor and kept in the student's clinical folder.

Any student who must go to court or is subpoenaed due to personal actions/reasons will be held accountable for time missed as per the regular clinical attendance policy.

Military Leave

The RAD program will allow 8 hours of clinical time without any grade penalty or warnings for Required military leave or duty with proper documentation provided to program officials and Clinical instructors. Any required military leave or duty that exceeds 8 hours will have to be made up.

Influenza/Flu Shot Policy

Program officials and clinical instructors recognize the possible impact of the influenza on student clinical attendance. The CDC and the College do not recommend a student attend class or clinic if he/she exhibits flu-like symptoms and has a fever. In addition, a student who attempts to attend clinic or class with flu-like symptoms and a fever will be sent home. In this case, the students will be counted absent, and the missed clinic time will be added to their Cumulative Attendance Record.

It is **mandatory** for students to **obtain a flu shot each fall** in order to attend clinical. Students must provide program officials with documentation of an annual flu shot by **November 1st** of each year. If the flu shot is contraindicated, the student should inform the clinical coordinator upon entry into the program. In some cases, the hospitals offer a free flu shot to students who are assigned there.

COVID-19 Vaccine

Although TCC does not require students to be Covid-19 vaccinated, a clinical site, and failure to get the Covid-19 vaccine(s) will prevent students from completing program requirements necessary to graduate and earn ARRT certification.

Clinical Tardiness Policy

Any student who arrives to clinic more than 30 minutes late without calling the clinical instructor/preceptor or coordinator will receive an oral warning with a 1-point grade reduction on the first offense and a written warning

with a 2-point grade reduction on the second offense. The amount of time missed will be documented on the student's Cumulative Record of Missed Clinical Time forms.

Students must always report to their clinical instructors before beginning the clinical day! If not, the student may be counted as tardy. Students must arrive to clinic by the scheduled time (7:30 a.m. day shift and 2:00 or 2:30 p.m. evening shift) and be in their assigned area by the designated start time. This policy also applies for OR rotations. Students are expected to be in their OR attire by 7:30 a.m. (Do not report to clinic at 7:30 a.m. and then go to dress out.)!

Repeated tardiness to clinic is unacceptable and will not be tolerated. If students arrive to clinic after the designated start time, they will be considered tardy! All tardiness will be recorded on the student's Cumulative Record of Missed Clinical Time.

The Radiography Program clinical tardiness policy is outlined below:

1. Students will be counted tardy any time they arrive to clinic after 7:30 am. Students may be late 3 times each year before receiving warnings and penalties. The first year ends at the end of the 4th clinical semester and the new year begins at the beginning of the 5th clinical semester.
2. Upon the 4th tardy of the first (2nd 3rd or 4th) year a student will be issued an oral warning. Any tardys that the student has accumulated during the first year will be reset to 0 at the start of the 5th semester. Any warnings earned during the first year, remain on the student's permanent record, but a tardy warning for the second year will not be issued until the student is late for a 4th time in semester 5 or 6.
3. Cumulative tardiness policy follows the oral warning policy. If the student is issued an oral warning for tardiness, and is then tardy again in the same year, the second warning for the same offense becomes written. Any student who gets two written warnings (for any reason) is placed on clinical probation, and a third written warning will result in withdrawal.
4. Students must call, leave a voice mail, text, or email their clinical instructor by 9:00 pm the evening before a planned absence to arrange time off from clinic. Otherwise, missed time will be counted as both a tardy and as an absence.
5. Amount of time missed for tardiness will be calculated in 15-minute intervals and deducted from each student's clinical attendance hours.

1 - 15 minutes = 15 minutes deducted	46 - 60 minutes = 60 minutes deducted
16 - 30 minutes = 30 minutes deducted	61 - 75 minutes = 75 minutes deducted
31 - 45 minutes = 45 minutes deducted	76 - 90 minutes = 90 minutes deducted

NOTE: Clinical instructors will designate a specific computer in their departments to track student tardiness.

Meals

Coffee breaks, lunch or dinner schedules will be assigned at the discretion of the clinical instructor, floor supervisor, or room radiographer when on clinical assignment. Breaks are limited to 15 minutes each, morning and afternoon. Lunch or dinner periods are to be at least 30 minutes but not more than 45 minutes long. As a general guideline, follow the department schedule for breaks and meals.

Students are only permitted to eat in designated areas of the radiology department or hospital due to OSHA regulations. Students should adhere to the department policy. Violations will result in an **oral warning** with a **1-point** grade reduction from the final clinical grade.

Breaks/ Gum Chewing

If a student takes a 15-minute break, then only a 30-minute lunch break will be allowed. Students may not skip lunch and subtract that time from the end of their shift! This rule also applies to evening-weekend rotations.

Students are not allowed to chew gum while delivering direct patient care. The **first time** a student is found chewing gum in the presence of a patient, the infraction will be documented on an **Official Documentation** form without a grade penalty. If gum chewing in the presence of patients persists (**second offense**), an **oral warning** with a **1-point** grade reduction from the final clinical grade will be issued. Subsequent offenses will result in a **written warning**.

Tobacco Free Environment

Tobacco use in any of the clinical sites and on adjacent areas is prohibited. Use of tobacco or smokeless tobacco product is not permitted anywhere on the property (sidewalks, parking areas, or in vehicles on the property). A **written warning** will be issued with a **2-point** grade reduction if a student smokes in any prohibited area.

Telephone / Cell Phone/Smart Watches/Social Media Use

Students are not permitted to make personal phone calls, texts, or access social media while on clinical time at the hospital. Family and friends should be asked not to call except in emergencies. If phone/media use becomes excessive/or is abused -- **oral warnings**, followed by **written** warnings, will be issued.

Students may use cell phones while on break, during lunch/meal breaks and before/after clinical hours. Students should consult with their clinical instructors since cell phone policies may vary from site to site.

Social Media Policy:

As a student you must be aware that your social media presence is public. Students will be held accountable for any internet activity deemed unprofessional that may reflect poorly on the college, the radiography program or the clinical sites and could result in liability for these entities and the student.

- Students should not access social media sites while on clinic time or during classes!
- Students should never represent that they are communicating as a representative or on behalf of any clinical site.
- Students should never take or post pictures, videos, or record conversations that compromise patient confidentiality!
- Internet activity related to the program or the clinical sites must not be harassing, malicious, discriminatory, retaliatory, threatening, vulgar, obscene, intimidating, or in violation of any applicable law or policies against discrimination and harassment.
- Students must consider potential conflict of interest issues prior to establishing an online relationship with an employee at a clinical site through social media. Furthermore, students need to be mindful of commenting or liking other individuals posts that can be seen as inappropriate.
- Respect copyright, trademarks and similar laws and use such protected information in compliance with applicable legal standards. This includes the use of clinical site logos, trademarks, or other proprietary graphics to create the appearance that they are speaking on behalf of a clinical site.
- Students must be mindful that postings could be forwarded, shared or used by others in ways other than as intended by the student who made the original post. Another point to keep in mind is that a posting **cannot be "erased."** Even a deleted internet posting may be archived and retrieved by a third party.

- **Confidential information maintained by the clinical site, especially Protected Health Information of patients, must never be revealed.**
- A student should never make comments on behalf of a clinical site if contacted by a blogger, online journalist, or media representative.
- **Violations of this policy will result in an oral warning, written warning, probation, or withdrawn from the TCC Radiology Program depending on the severity of the violation.**

Falsification of Time Records

All students must sign in or out on the designated computers in the radiology department at the designated clinical site. Each student has been provided with a username and password to access the Trajecsys Reporting System to sign in when they arrive at clinical and when they leave the premises. Students will be issued warnings based on the circumstances of the falsification of a clinical time record.

- Blatant or Intentionally falsification of a time clock - A student who signs in at 7:30 am or out at 4:00 pm but arrives late to or leaves early from clinic and /or has another student sign in and/or out for him/her will be placed on **clinical probation** for the **first offense**. The **second offense** may be grounds for **dismissal** from the TCC RAD Program. Example: a student arrives at 8:00 am but signs in at 7:30 am or leaves at 3:30 pm but signs out at 4:00 pm.

Functional State Policy

Students must arrive to clinic in a functional state with the ability to work and perform their normal clinical duties. Any student who is not able to function normally will be asked to leave clinic and all missed time will be documented as per the program attendance policy. The functional state policy will apply to any condition or situation which affects the student's ability to provide appropriate safe patient care, and to competently perform the duties of a radiography student in the clinical environment. The non-functional state includes but is not limited to students who are experiencing physical limitations (ie: on crutches), students who fail to report to the clinical site in an alert condition, (ie: sleeping in clinic), students experiencing mental or emotional duress, or any student under the influence of drugs and /or alcohol.

As per the TCC Drug and Alcohol policy, students attending clinic under the influence of drugs and/or alcohol will be dismissed from the Radiography program and TCC!

A student under mental or emotional duress may exhibit one or more of the behaviors listed below or other behaviors identified and may be a potential threat to patient safety, clinical personnel, or his/her classmates. If a student is non-functional or a potential threat they will be asked to leave the clinical setting and the clinical time will be deducted:

- Continuous mood swings, racing thoughts, impaired judgment or impaired concentration
- Inappropriate detached or withdrawn behavior
- Prolonged fatigue or irritability
- Agitation and/or inappropriate behavior
- Confusion, short attention span, poor concentration, excessive worrying
- Short or quick temper, verbal outbursts, outbursts of anger, poor impulse control
- Illogical verbal communication and confused thoughts
- Aggressive and/or reckless behavior
- Disorganized speech and behavior
- Emotional behavior such as uncontrolled crying
- Inappropriate comments and posturing, rudeness, disrespecting self and others
- Fearful, indecisive, demanding, unrelenting persistent and controlling actions/behavior

Warnings may be issued depending on the severity and or frequency of the infraction(s).

Substance Abuse Policy

The clinical sites require drug testing of prospective employees and as a TCC Radiography student alcohol and illegal drug use is prohibited. The program adheres to the college policy on drugs and alcohol:

<https://www.tcc.edu/service-support/student-handbook/#item-seventeen>

Prescribed Drugs

Students who are taking prescribed medications that impair mental or physical function should not attend clinical until the medication is discontinued. Students who demonstrate diminished mental or physical activity will not be allowed to remain in clinical per the Functional State Policy.

Inclement Weather Policy for Clinical Education

If TCC cancels class or closes due to snow or inclement weather, students scheduled for class and/or clinic time are excused. Students are not permitted to attend clinic when classes are canceled or TCC is closed due to inclement weather. Students scheduled for the evening/W.E. shift will follow the same policy as students scheduled on the day shift. When TCC opens late, students are expected to arrive at clinic at TCC's designated start time for the delayed opening.

Clinical Orientation

Hospital and Radiology Department

All students will be given a formal orientation by their clinical instructor to Hospital and Radiology Department procedures, protocols and equipment to include both OSHA and HIPAA practices and guidelines as well as all TCC RAD Program Clinical Policies and Procedures in the first weeks of both the 2nd and 5th semesters of clinical training. Attendance during these initial orientation sessions is essential and planned absences should be avoided. An oral warning will be issued for planned vacation during the first 2 weeks of the 2nd or 5th semester clinical rotation. In addition, informal orientation sessions should be conducted with students every semester at each clinical site to reinforce all Hospital, Radiology Department and TCC RAD Program policies and procedures.

Mandatory Orientation Education Modules

Orientation Training Modules must be completed annually by all 2nd & 5th semester students prior to the start of Fall semester. All students will be introduced to the modules and provided instructions to follow to complete the modules at the beginning of the summer semester. Students will have all summer semester to complete the modules. An **oral warning** will be issued to any student who does not complete the training & turn in completed test sheets to instructors by the specified dates at the beginning of the Fall semester.

Clinical Instructor / Adjunct Faculty

Each clinical education center will provide a clinical instructor to supervise the students' activities. Clinical instructors are required to be registered and have a minimum of 2 years of experience. They must also hold a current Virginia Board of Medicine Radiographer license if employed by the college rather than the hospital. The clinical instructor will be responsible for maintaining student records, completing mid-term interim and final semester evaluations, and compiling clinical grades. The Clinical Instructor is responsible for enforcing program policies and monitoring clinical education. The clinical instructor is present to assist students; students should utilize the instructor's skill, knowledge,

and experience to their fullest advantage. Should the assigned clinical instructor be absent, adjunct clinical faculty, program officials or a registered radiographer will supervise the students' clinical training.

The clinical instructor is to be given the students' full cooperation and respect at all times. Disrespect and discourteous behavior toward the clinical instructor will not be tolerated. Depending on the situation and at the discretion of the clinical instructor, an **oral** or a **written** warning will be issued with the appropriate grade reduction.

Clinical Warnings

The policies and rules of this program have been developed and revised as needed to insure consistency and efficiency in coordinated practice. They apply to all students and are enforced fairly. When policies or rules of conduct are disregarded (including policies and rules set by hospital affiliates), the following procedure will be followed:

1. Students may receive an initial warning without any grade reduction documented using the "Official Documentation" form.
2. Upon first offense, student will receive a verbal warning documented by the clinical instructor using the "Oral Warning" form.
3. Having four separate oral warnings for various violations will lead to a Written Warning and a 2-point grade reduction.
4. If the same policy or rule is disregarded a second time, a Written Warning will be documented by the clinical instructor using the "Written Warning" form. A written warning results in a 2-point grade reduction for the semester in which it was issued.
5. Any student who receives two Written Warnings will be placed on Clinical Probation and suffer a 5-point grade reduction. If a student receives a Written Warning for any infraction while on probation, the student will be withdrawn from the program.
6. Students may withdraw from the Program by the College's published withdrawal date for each semester to avoid academic penalty. After the deadline date for Withdrawal to Avoid Academic Penalty deadline date, students who are withdrawn from the Program due to Clinical Probation, poor clinical performance, issues or problems will receive a grade of F.

Please Note: In this case, program re-entry or re-admission may be denied.

Official Documentation	1 st Oral Warning	2 nd Oral Warning	3 rd Oral Warning	4 th Oral Warning	1 st Written Warning	2 nd Written Warning	Clinical Probation	Withdrawal
No Grade Reduction	1-point Grade Reduction	1-point Grade Reduction	1-point Grade Reduction	1-point Grade Reduction	2-point Grade Reduction	2-Point Grade Reduction	5-Point Grade Reduction	Will receive an F if not withdrawn prior to College's published deadline

Final Grade Penalty

If a student receives a warning or is placed on probation for any reason in a semester or at any time during their clinical training, the final clinic grade will be reduced as follows:

Oral Warning	Written Warning	Clinical Probation
1-point Grade Reduction	2-Point Grade Reduction	5-Point Grade Reduction

Depending upon the severity, frequency and circumstances of the matter, the student may:

1. Receive a direct written warning **without** a verbal warning
2. Be placed directly on Clinical Probation **without** any previous written documentation

A student dissatisfied with the decision has the right to implement the ***Appeal Process for Clinical Education***.

Appeal Process for Clinical Education

This is the policy to follow in appealing any disciplinary or academic conflict occurring in clinical education. Students should always talk to their clinical instructor first if there is a grievance issue before speaking with the clinical coordinator. This policy will be used when a student is not satisfied with the results of a conference with a clinical instructor or wishes to appeal written documentation or clinical probation.

The conflict or policy violation must be documented on the appropriate oral or written warning form. Each party must sign the form to signify knowledge of information contained on it. If the student does not agree with an oral or written warning or wishes to appeal clinical probation, or a competency evaluation or evaluation score, the proper channels must be observed:

1. The Clinical Instructor must first be informed of the grievance or appeal in writing within ten calendar days of the written documentation, otherwise, the decision will be final. At this point, the Clinical Instructor may decide to uphold or rescind the written or oral warning. A grievance for Probation should go directly to the Clinical Coordinator.
2. The Clinical Instructor must contact the Clinical Coordinator within **2 working days** to set up a meeting to review the case. A copy of the written appeal submitted by the student should be provided to the Clinical Coordinator at this time. The Clinical Instructor and Clinical Coordinator will meet in person, or discuss the situation over the phone within **3 working days**.
3. The Clinical Coordinator will then contact the student to set up a meeting for the student to present the case from their perspective. At this time the Program Director will be called upon to review the case. This meeting will be set up no later than **15 working days (three weeks)** after the submission of the initial appeal to the Clinical Instructor.
4. After the initial conference with the clinical instructor and conference with the student, the Clinical Coordinator may recommend a conference between the involved parties to attempt to resolve the conflict. The program officials will only determine the interpretation of the policy, situation and action taken by the clinical instructor. A conference with the program officials does not assure a reversal of the Clinical Instructor's decision. The student will be informed of the Clinical Coordinator & Program Director's decision within **5 working days** of the above-mentioned conference.
5. If the student is not satisfied with the decision made by the program officials, the student may request an appointment with the Health Professions Dean to resolve the issue. The Dean must be contacted within **5 working days** of the decision from the Program officials. The Dean will decide on the matter within **5 calendar days** of when he or she meets with the student.
6. If the conflict cannot be resolved at this level, the student may request a hearing with the Campus Dean of Student Services within **5 calendar days** after receiving the decision from the Health Professions Dean.
7. A final decision will be made by the Campus Dean of Student Services within **10 working days** of the meeting with the student.

Clinical Competency Requirements

The TCC Radiography Program clinical competency requirements are based on the current published **ARRT** Clinical Competency Requirements to include six general patient care activities and a minimum of **51** of the **71 ARRT** radiologic procedures all of which are entered under Clinical Competencies and accessible to students and instructors in Trajecsys. Demonstration of competence includes variations in patient age, gender and medical condition.

General Patient Care Requirements

Student must demonstrate competency in these ten patient care activities:

1. CPR
2. Vital Signs: Blood Pressure
3. Vital Signs: Temperature
4. Vital Signs: Pulse
5. Vital Signs: Respiration
6. Vital Signs: Pulse Oximetry
7. Sterile and Medical Aseptic Technique
8. Venipuncture
9. Transfer of Patient
10. Care of Patient Medical Equipment (Oxygen Tank, IV Tubing)

These activities should be performed on patients. Simulation is acceptable if state or institutional regulations prohibit candidates from performing these procedures on patients. It is acceptable to demonstrate CPR on a mannequin and perform Venipuncture by demonstrating aseptic technique on another person but insert the needle and inject contrast into a phantom arm.

The TCC Radiography Program Director must verify completion of the ten general patient care competencies and a minimum of the **51** out of the possible **70** competencies in radiographic procedures prior to each student's completion and graduation from the program to be eligible to sit for the ARRT Certification Exam in Radiography.

Clinical Category Competencies

Each student's clinical performance is assessed based on the clinical competency evaluation system. This system provides standardized evaluation, ensuring objectivity by the evaluator and consistency in grade determination.

Demonstration of competence includes:

- Requisition evaluation (use of RIS/HIS system)
- Patient assessment
- Room preparation
- Patient management
- Equipment operation
- Technique selection
- Knowledge of Central Ray location
- Positioning skills
- Radiation safety
- Image processing and evaluation

First Step: Lab Testing

Students learn radiographic positioning skills and procedures in RAD 121 and RAD 221 laboratory classes and must pass the laboratory exams before performing these procedures on patients in the clinical setting. TCC Laboratory instructors teach from the current edition of the Bontrager textbook and process phantom images with the students

using CR and DR digital imaging techniques to initiate students to each exam prior to performance and competency testing in the clinical setting.

Second Step: Practice & Perform Exams

Students who have covered a particular radiographic examination in positioning class may begin to assist technologists in the clinical sites with these exams to gain practice and experience. This participation becomes more active as students are allowed to perform x-ray exams under direct supervision of a technologist. Students' progress rates will vary according to individual comprehension, ability, and motivation.

Students are encouraged to practice an exam at least one time in clinic with minimal assistance from a staff technologist or the clinical instructor on a patient before attempting a check-off or perform. A **check-off or perform** should only be awarded to the student who performs an exam or procedure under direct supervision but **without** assistance from a technologist and/or clinical instructor. Images with the appropriate student markers must be shown to the clinical instructor for students to be awarded a documented **perform** on the exam or procedure. Students will document their **performs** as practice exams in Trajecsys on the clinical Tally Sheet. Once the Clinical Instructor reviews the images and approves the perform, the Clinical Tally Sheet will be validated.

Third Step: Clinical Competency Evaluation

Students who believe themselves capable of performing an examination with minimal assistance will request that their skill and competency level be evaluated through a category **competency** evaluation by the clinical instructor. After successfully completing the evaluation, students will be allowed to perform all subsequent exams of this type under indirect supervision. The minimum acceptable level of competency is **86 percent**.

Each student must perform a minimum of **51 required** competency evaluations to be eligible to graduate from the program which include adult, geriatric, and pediatric competency requirements. **Thirty-six** required radiographic exams are designated in Trajecsys. These 36 exams should be performed on patients. Depending on the availability and feasibility of some exams, a maximum of 10 out of the 51 exams may be simulated. Some mandatory exams may NOT be simulated. Refer to the ARRT January 2022 Didactic and Clinical Competency Requirements for these exams. https://assets-us-01.kc-usercontent.com/406ac8c6-58e8-00b3-e3c1-0c312965deb2/68688f6b-d625-4fce-be07-b9b8a81b7d10/RAD_CC_2022.pdf

According to the ARRT, exam simulation requirement must meet the following criteria:

- The student is required to competently demonstrate skills as similar as circumstances permit to the cognitive, psychomotor and affective skills required in the clinical setting.
- The TCC program director is confident that the skills required to competently perform the simulated task will generalize or transfer to the clinical setting, and, if applicable, the student must evaluate related images.

There are 34 elective exams listed on the *Record of Clinical Category Competencies* and designated in Trajecsys. Students must perform a competency on 15 of the 34 elective exams but are encouraged to complete all 34 elective exams.

- One of the 15 electives must be selected from the Head / Cranium section
- One of the 15 electives must be selected from the Fluoroscopy section (in addition to the one mandatory fluoroscopy exam, Contrast Enema)

Repeat Image Protocol

Whenever a student must **repeat** a radiographic image, whether the error occurred under direct or indirect supervision, a **qualified registered radiographer must be present**. The student must be certain to understand the reason for repeating the radiograph and how to correct it. This rule must be strictly enforced!! **No exceptions**.

Violations of this guideline will result in the issuance of a **written warning** and 2 points deducted from the final clinical grade.

The student must document the repeat on the appropriate exam on the Clinical Tally Sheet in Trajecsys. The student must also indicate the technologist / instructor who witnessed the repeat image and the reason for the repeat in the notes section of the Clinical Tally Sheet. The Clinical Instructor will verify the repeat image was performed under the direct supervision of the identified technologist. All radiography students and department technologists complete a supervision module and posttest assuring knowledge of this policy.

Clinical Tally Record

Student clinical records will be maintained by the student on the Trajecsys Reporting System. Students will complete the Clinical Tally Record to accurately record daily participation in exams and procedures. Due to the HIPAA Law and to protect the privacy/confidentiality of patient information, Clinical Tally Records should **NOT** contain confidential patient information. Competencies may be recorded using information the student can recall but will not compromise patient confidentiality (follow clinical site and instructor guidelines).

It is extremely important for students to record each exam or procedure on the Clinical Tally form because the record may serve as written documentation of student involvement or lack of involvement in the clinical environment. The tally sheet will be evaluated and used as documentation for student evaluations by the Clinical Instructor.

Transportation and Hospital Parking

Students will be responsible for providing their own transportation to clinical education centers. Students should park in areas designated by the individual hospital. Parking permits must be obtained in some parking areas. Parking at Sentara Norfolk General and CHKD may require a parking fee in some areas. Please check with your instructor.

Identification

Students will obtain a TCC ID and wear it as an official TCC Radiography Student in both the classroom and the clinical environment. The hospitals may also require a photo ID, necessitating the completion of an additional application process in order to issue the ID badge, since the badge provides access to restricted areas. Student ID badges should face forward and markers should not cover the student photos. The first time a student arrives at clinic without the TCC ID badge and or hospital affiliate ID badge, an **oral warning** will be issued.

Accidents

It is strongly recommended that students carry health care insurance. The college or hospital **does not** assume responsibility for student's accidents occurring on campus, traveling to and from clinical affiliates, or **during Coordinated Practice**.

All accidents that occur while on clinical assignment and which result in injury to the student, a patient, or a hospital staff member, or in damage to equipment must be reported immediately to the clinical instructor and clinical coordinator. The student and clinical instructor must complete a TCC Health Professions Critical Incident Report, which is located on the RAD Forum in Canvas and can be completed and submitted electronically to the Clinical Coordinator. A copy of the report should be placed in the student's clinical file on site, and in their permanent file at the college.

Radiation Monitoring

Students will always wear the assigned dosimeter while on clinical assignment and making radiographic exposures in lab at TCC. The student who arrives to clinic without their dosimeter on the first offense will receive an **oral warning**. The student may choose to go home to retrieve the dosimeter and the time missed will be documented on that semester's attendance record or the student will be placed in a non-radiation area for the day. Non-radiation area may be interpreted as standing behind the control booth barrier in a diagnostic or fluoroscopy room. Students are **not** permitted to actually perform fluoroscopy or surgical/mobile procedures without a dosimeter. If a student is found performing fluoroscopy or surgical/mobile procedures without a dosimeter, a **written warning** will be issued.

It is each student's responsibility to protect his or her monitoring device when it is not in use. If at any time, the dosimeter is lost or destroyed (physical damage occurred or it got washed on the uniform) the student will be assessed a **\$25.00** lost dosimeter charge and receive an **oral warning**. In addition, students will be placed in a non-radiation area until the lost badge has been replaced. Furthermore, if a student fails to communicate with program faculty, pick up or return a dosimeter by the due date given by faculty the student will receive an **oral warning**.

Except when participating in specialty rotations at a different clinical site or in the TCC Lab, dosimeters should be kept at the clinical site in a designated secure area and supervised by the clinical instructor to avoid excessive exposure to the dosimeters, obtain accurate readings and maintain control over the dosimeters. Students must adhere to this policy otherwise an **oral warning** will be issued.

Radiation monitoring devices will be worn at the collar in all clinical areas regardless of the clinical rotation and in lab.

Quarterly Monitoring of Student Dose

Program Officials will change the dosimeter quarterly (every 3 months) and monthly for pregnant students for recording purposes. Students are requested to bring the current dosimeter to class to exchange for the newly issued one to facilitate timely collection of dosimeters.

Each student's quarterly exposure will be documented, and an individual report sent to each student who receives an exposure, in each three-month period through their TCC email. If you do not receive an exposure report, this means that your radiation exposure was negligible (too small for the dosimeter to measure). The dosimeter used by the radiography program cannot measure radiation doses below 1 millirem (.01 mSv). At any time, you may request a review of your current period or cumulative exposure from the Program Director or Clinical coordinator who maintains the exposure records.

ALARA Program

To assure awareness and maintain safe levels of radiation exposure, students and program faculty will adhere to the standards set forth by the TCC ALARA Program. The Radiography Program strives to keep individual student and faculty doses "**As Low As Reasonably Achievable**". TCC's ALARA policy exceeds the requirements set forth by the United States Nuclear Regulatory Commission (U.S.NRC) Title 10 Part 20.1201 found at: <https://www.nrc.gov/reading-rm/doc-collections/cfr/part020/full-text.html#part020-1201>, and is consistent with the ALARA programs followed by the college's clinical affiliates, providing for three levels of exposure notification guidelines.

Table 1 provides ALARA guidelines that represent dose levels considered "Investigational" by the program's clinical affiliates. When exceeded, these levels of exposure initiate review or investigation by the designated Radiation Safety Officer (RSO).

<i>Badge Type</i>	<i>Level</i>	<i>Quarterly Dose</i>
Whole Body Collar Badge	I	1.25 mSv (125 millirem)
Whole Body Collar Badge	II	3.75 mSv (375 millirem)

Exceeding ALARA Exposure Levels

In the event that these quarterly dose levels are exceeded, the following steps will be followed:

Exceeding ALARA Level I

- The Program Director or Clinical Coordinator will verbally talk to the student to determine why doses are above Level I.
- Student will be counseled by a program official and a dose report review form will be completed
- Student will be counseled on exposure control methods and official documentation will be maintained by the college in the student's permanent file

Exceeding ALARA Level II

- The Clinical Coordinator will notify the designated Radiation Safety Officer of the clinical affiliate in writing
- The student will be counseled by the RSO and the Clinical Coordinator to determine the cause of the exposure
- If the equipment is found to be at fault, the RSO may shut down the equipment until the issue is resolved. Meantime, no students will be assigned to the area.
- If the student's ALARA practices are found to be the fault, the student will be counseled on exposure control methods, and official documentation will be maintained by the college in the student's permanent file. Written documentation will also be maintained by the RSO, and reported to the Radiation Safety Committee for review and necessary action.

Exposure levels of this magnitude are very unusual in diagnostic radiology. Four consecutive quarters of dose levels reaching **12.5 mSv (1250 millirem) or 50 mSv (5000 millirem) in a 1-year period** would necessitate removal of a student from areas of potential radiation exposure to prevent further accumulation of dose. The whole-body effective dose equivalent (EDE) limit established by NCRP Report #116 and the U.S.NRC Title 10 Part 20.1201 recommends that the individual EDE limit not exceed **50 mSv (5 rems) or (5000 millirem) per year**.

In the event a student receives above **50 mSv (5 rems) in the period of 1 year**, the following policy will be followed:

- The student will be removed from the clinical portion of the program temporarily
- The exposure received will be reported to the VA Bureau of Radiologic Health in writing if it exceeds the annual limit of **50 mSv (5 rems)**
- The RSO will advise the program as to when the student will be allowed to accumulate additional radiation exposure in accordance with the VA Bureau of Radiologic Health regulations
- Assuming the student has followed ALARA policies, he or she will remain in good standing and continue in the didactic portion of the program
- Re-enrollment in the clinical portion of the program will resume as advised by the RSO and approved by the Clinical Coordinator
- The student will be required to complete all missed clinical rotations and specified semester objective
- This situation will place the student at least one clinical semester behind the normal curriculum sequence which will delay the graduation date accordingly

The occurrence of this scenario is rare or very unlikely in diagnostic radiology under normal clinical conditions. The program strives to maintain student dose levels well below level I ALARA levels as indicated in Table 1. Program faculty and respective Radiation Safety Officers will educate and counsel students to prevent dose levels from approaching "Investigational Levels".

Holding Patients For Overhead Radiographic Exams

It is against radiation safety practices and ALARA for students to hold a patient or image receptor for an overhead exposure (including clinical and lab). Students should refuse to hold patients if they are in a situation where they are asked or told to hold by a technologist. When refusing to hold, an explanation should be given that it is against program policy for students to hold. **Students must not hold the image receptors during any radiographic procedure.** Restraining devices should be used to immobilize the patient, or in cases where the patient must be held, non-radiology personnel or a family member should be utilized.

Accidental Radiation Exposure By A Student

Accidental radiation exposure to a patient will result in a **written** warning and a **2-point** grade reduction.

Students are expected to protect themselves, other staff and visitors from unnecessary radiation exposure according to established guidelines. Students are responsible for ensuring the safety of all personnel prior to making an exposure in a radiation area. Negligent radiation exposure to a technologist will result in a **written** warning and a **2-point** grade reduction.

Tuberculosis Screening Protocol

Enrollment

1. All Health Professions students will be required to have an Interferon Gamma Immunoassay blood test prior to enrollment. After initial testing, students are required to receive a TB Risk Assessment annually. The student is responsible for all charges related to testing.
2. All significant reactors (identified previously or upon current testing) and/or those students identified as symptomatic will receive a chest X-ray.
3. All students receiving a chest X-ray will be evaluated by a physician and considered for appropriate therapy. Treatment plans following the evaluation will be documented by a physician, forwarded to the college, and maintained by the college.
4. All students identified as having communicable TB disease will be excluded from participation until rendered non-infectious as evidenced by three consecutive smeared negative for AFB (acid fast bacilli).
5. Eligibility of student's to attend clinical rotation is for final review by the hosting clinical facility.

Routine Subsequent Evaluations

1. Annual Risk Assessment screening is required by all student.
2. All significant reactors (whether or not they took preventive INH therapy) will be assessed for the presence of symptoms associated with TB disease semi-annually and be evaluated by a physician should such symptoms be identified. The physician will be notified of the presence of the positive Mantoux test.
3. Annual chest x-rays may not be necessary for previously identified significant reactors who are asymptomatic (whether or not they took preventive INH therapy).

Exposure to Pulmonary TB Disease

Students who have a documented exposure to a patient with active TB must follow the protocol set forth by the Occupation Health department of the hospital. In addition, students must consult with their private physicians and get a release to return to school and clinical.

- a. The above procedure will be repeated for all non-reactors. In non-reactive on the initial test, these persons will be retested twelve weeks later.
- b. All significant reactors should be assessed for symptoms associated with TB disease and be evaluated by a physician if these symptoms are identified. Treatment plans following the evaluation will be documented by a physician, forwarded to the college, and maintained by the college.

Symptoms

Persons with symptoms of TB (fever, night sweats, or cough for >3 weeks) should have a prompt evaluation by a physician, including chest X-ray, sputum for AFB, etc. DIV-2\TB

N-95 Masks/Airborne/Droplet Patients

Students should wear regular protective masks when imaging patients suspected of having tuberculosis. If a patient has a confirmed case of TB (positive for TB) or a positive PPD or IGRA test or Covid-19, students should not participate and will be excused from imaging the patient. Since the college does not provide permanent individually fitted protective masks for each student, students should not be placed in a situation where they may acquire exposure to any disease transmitted via this route.

TCC's *Health Professions Division TB and Covid Screening Protocols* will be followed in cases of exposure or possible exposure.

TB Protocol for Pregnant Students

Students that declare pregnancy while in the program will acquire a TB risk assessment to satisfy their annual renewal.

TB Test/ Retest Requirement

Clinical affiliation agreements require that TCC **students** attending clinical rotations **be tested annually** for exposure to TB. Castlebranch will notify each student approximately **one month** prior to the expiration of their current TB screening that retesting is required. If a Program Official has to get involved, the notification will be sent to the student's TCC email. **It is the student's responsibility to keep up with correspondence from program officials and Castlebranch.**

Students who **retest for TB** but fail to upload results to Castlebranch by the deadline date the student will receive an **oral warning**. TB test results may be emailed, faxed or brought to the Program Official's office. Students will be permitted to attend clinic when the TB requirement has been met.

Students who **fail to complete the TB Risk Assessment Screening or fail to have the IGRA test completed and do not upload the test results to Castlebranch by the deadline date** will receive a **written warning**. **This rule applies to all immunizations.** In addition, students will not be permitted to attend clinic until the requirement has been met. Any missed clinical time will be documented as **Cumulative missed time!**

Student Participation in "Isolation Cases"

Students are in no way exempt from actively assisting a staff technologist with any isolation case assigned to their rotational area. It is encouraged that students assume the role of "dirty" as well as "clean" tech to gain maximum practice in the application of sterile technique. If there are any problems encountered with student refusal to assist with isolation cases, appropriate disciplinary action will be taken. **No student will be allowed to perform an isolation case alone.**

In a situation in which a patient has tested positive for Covid-19, TB and/or influenza or has a positive PPD test or any flu-like symptoms, the student will be excused if they have not been "fit tested" for a protective N-95 respirator.

Cardiopulmonary Resuscitation and Re-Certification Policy

All students must have a current **American Heart Association Basic Life Support CPR certification** throughout the clinical portion of the program. Clinical affiliation agreements require CPR certification for all TCC students attending clinical rotations. The initial CPR course is offered summer semester before clinical practice begins in the fall. The CPR course must be CPR for BLS Provider to include **Adult, Child and Infant CPR as well as AED training**, and it must include a skills component. **No student will be permitted to begin or continue coordinated practice without CPR certification.**

Program officials will maintain and track records for CPR certification and recertification. CPR expiration dates will be posted in each student's Health record section of Trajecsys and this record is accessible to the clinical instructor with a password. Approximately **one month** prior to the due date, students and clinical instructors will be notified through their TCC email that recertification is due. This notice will instruct the student to recertify in American Heart Association Basic Life Support CPR and provide the program official and clinical instructor with proof of recertification by the deadline date.

Students who attend a CPR class but fail to provide documentation to Castlebranch by the deadline date for CPR recertification will be permitted to attend clinic but will be issued **an oral warning** which will result in a 1-point deduction from the final clinic grade.

Students who fail to attend a CPR class and provide documentation to the program official by the deadline date will receive a **written warning** and a 2-point reduction from the final clinic grade. In addition, students will not be permitted to attend clinic until the requirement has been met. Any missed clinical time will be documented as Cumulative Missed Time. Students will be given a sheet to review CPR skills at the beginning of the 3rd and 5th semesters to better prepare them for their 6th semester terminal competencies and for clinical preparation.

Malpractice Insurance

All Health Professions students are protected by a professional liability insurance policy through the college. There is no charge for this coverage. Students may obtain additional coverage at a nominal fee if desired. Further information is available through the ASRT.

<http://www.hpso.com/our-partners/associations/american-society-of-radiologic-technologists>

Lead Markers / Lead Marker Policy

Lead markers designating right or left must be visible on a radiographic image for legal reasons. It is imperative that all radiographic images produced have a marker correctly designating the left or right side. Students will use their own initialed lead markers to properly identify the radiographic exam they perform.

Students will purchase a set or two of markers with their initials. Program officials will order the lead markers for the students in the summer semester prior to the start of clinical rotations in the fall. Students must use these designated markers when producing radiographs/images in coordinated practice.

Students will not lend their markers to other students. Students will not receive markers from other students or technologists. Initialed markers reflect the quality of the work of the student whose initials appear on the image. The initials are used in quality control to monitor technologist and student errors. The lead markers are considered part of the student uniform. If they are forgotten and left at home, an oral warning will be issued and the instructor reserves the right to deny check-off/competency requests.

Students will also be responsible for the cost of replacing the initial set of markers or if desired, the purchase of an additional set. Students who misplace a marker will be required to order a replacement within one week and provide necessary documentation to the clinical instructor. Options for ordering replacement markers can be found on Canvas on the RAD Forum. If the order is not placed within one week, an oral warning will be issued. A copy of the document will be issued to the student. The clinical instructor will provide a set of TCC markers for use until the order arrives.

Lead Marker Loan Policy

When checking out and returning TCC loaner markers, a signature on the loan form will be required by the student (when signing out and in). If the loaned lead markers are lost by the student, they must be replaced immediately. **If the markers are not replaced before the end of the semester, a clinical grade will not be reported for the semester.**

Students are not permitted to take the TCC loaner markers home. The markers must be returned to the clinical instructor at the end of each clinical day or shift to ensure availability for all students who need to borrow the markers.

Patient Image ID / Lead Marker Policy

Prior to completing each and every exam it is the responsibility of the student radiographer to review each radiographic image in the study to ensure that each image is marked with the proper patient ID. Any radiographic image that is incorrectly marked or not marked at all should be corrected per each facility's protocol. The first time a student submits an image to PACS with the incorrect patient ID or wrong markers, an **oral warning** will be issued. Patient ID information and lead markers must be correct and legible. Further violations will result in a **written warning**.

An **oral warning** will be issued for processing radiographic procedures under the wrong accession number using CR/DR (assign the wrong exam and accession number to multiple CR cassettes). However, a **written warning** will be issued if a student releases/submits the images to PACS.

ROOM ASSIGNMENTS / SEMESTER SCHEDULES

Student room rotations in the affiliate radiology departments will be posted on the first day of each semester. These schedules are not to be changed for any reason other than by the clinical instructor. Copies of all student semester rotation schedules will be kept on file in the RAD Program Office for official documentation and for possible litigation cases.

Each assignment will include specific objectives that must be met before ending the rotation. Room objectives will be given to the student by the clinical instructor. An **oral warning** will be issued if a student leaves an **assigned area** or department without permission from a radiographer, supervisor, or their clinical instructor.

In an emergency or unusual situation, a student may be asked to work other assignments as designated by the clinical instructor. When feasible, students will be reassigned to the original room to meet objectives.

Solid block/ consecutive scheduling of room rotations is preferred and standardized rotations must be followed for consistency. Clinical instructors will provide students with an orientation packet and forms.

CLINICAL ROTATIONS

Standardized rotation schedules have been designed for the 2nd through 6th clinical semesters.

Standardized Rotation Schedules

Freshman Rotation Schedule, Fall Semester (2ND)

The rotation will be for 15 weeks with 3-week rotations for each area as follows:

Rotation	Week(s)	Days
1 Orientation rotation (can be adjusted as needed)	1 week	2 days
1 ER rotation	3 weeks	6 days
1 Portable/OR rotation	2 weeks	4 days
1 Fluoro rotation	3 weeks	6 days
2 Diagnostic rotations (can include ER)	6 weeks	12 days
Total	15 weeks	30 days

Note: This is a suggested schedule which may be adapted to suit each hospital's department but is an attempt to standardize the rotations as much as possible.

OR/portable rotations will be scheduled for a total of **4 weeks** over the 2nd and 3rd semesters tailored to each clinical site.

Freshman Rotation Schedule, Spring Semester (3RD)

The rotation will be for 15 weeks with 2- or 3-week rotations for each area as follows:

Rotation	Week(s)	Days
2 Fluoroscopy rotations	6 weeks	12 days
1 ER rotation	2 weeks	4 days
1 Portable/OR rotation	2 weeks	4 days
2 Diagnostic rotations (can include ER)	5 weeks	10 days
Total	15 weeks	30 days

Note: This is a suggested schedule which may be adapted to suit each hospital's department but is an attempt to standardize the rotations as much as possible. Students may voluntarily complete 1 evening/weekend rotation in order to meet clinical objectives when exams or number of technologists may be limited in the clinical environment. Voluntary evening/weekend rotation will substitute for a diagnostic or ER rotation.

OR/portable rotations will be scheduled for a total of **4 weeks** over the 2nd and 3rd semesters tailored to each clinical site.

Senior Rotation Schedule, Summer Semester (4TH)

The rotation will be for 10 weeks with 2-week rotations for each area as follows:

Rotation	Week(s)	Days
1 Evening/weekend rotation:	2 weeks	6 days
2 Diagnostic rotations	2 weeks	6 days
1 ER/Diagnostic rotation	2 weeks	6 days
1 Portable/OR rotation	2 weeks	6 days
1 Fluoro rotation	2 weeks	6 days
1 C.T. rotation (CIs discretion on where to sub rotation)	1 week	3 days
Total	10 weeks	30 days

Note: This is a guideline to follow when scheduling the summer semester course work to try to standardize the clinical rotations as much as possible.

Students may substitute Sunday or Monday evenings for Tuesday, Wednesday or Thursday evening rotations with the permission of the clinical instructor.

All Evening/Weekend Rotations: Students must schedule either two (2) Friday evenings, two (2) Saturday evenings or one (1) Friday & one (1) Saturday evening from 2:00-10:30 PM, or 2:30-11:00 PM. The scheduled dates and hours must be set the week before the scheduled rotation begins.

Senior Rotation Schedule, Fall Semester (5TH)

The rotation will be for 15 weeks with 2- or 3-week rotations for each area as follows:

Rotation	Week(s)	Days
1 Orientation rotation (can be adjusted as needed)	1 week	3 days
1 Evening/weekend rotation:	2 weeks	6 days
1 Pediatric rotation at CHKD or CT	2 weeks	6 days
1 Interventional Radiology or one specialty area rotation	1 week	3 days
1 Diagnostic rotation	2 weeks	6 days
1 ER rotation	2 weeks	6 days
1 Portable/OR rotation	2 weeks	6 days
1 Fluoroscopic rotation	3 weeks	9 days
Total	15 weeks	45 days

Note: This is a suggested schedule which may be adapted to suit each hospital's department.

* 5th Semester students will rotate through Pediatrics **or** CT for **2** weeks and Interventional **or** one (1) specialty area during the 5th semester for a total of **3** weeks. A third consecutive week at CHKD may substitute for one specialty rotation. Students may choose to spend an additional week in CT or may also choose **one** extra week in Interventional radiography rather than choosing an additional specialty rotation.

Remember: All rotations must total 15 weeks or 45 days.

Sample 5th Semester Schedule:

2 weeks CHKD	or	2 weeks CT
1 week MRI		1 week Interventional

All Evening/Weekend Rotations: Students must schedule either two (2) Friday evenings, two (2) Saturday evenings or one (1) Friday & one (1) Saturday evening from 2:00-10:30 PM, or 2:30-11:00 PM. The scheduled dates and hours must be set the week before the scheduled rotation begins.

Senior Rotation Schedule, Spring Semester (6TH)

The rotation will be for 15 weeks with 2- or 3-week rotations for each area as follows:

Rotation	Week(s)	Days
1 Evening/weekend rotation:	2 weeks	6 days
1 Pediatric rotation at CHKD or CT	2 weeks	6 days
1 Interventional Radiology or one specialty area rotation	1 week	3 days
1 Diagnostic rotation	2 weeks	6 days
1 ER rotation	3 weeks	9 days
1 Portable/OR rotation	2 weeks	6 days
1 Fluoroscopic rotation	3 weeks	9 days
Total	15 weeks	45 days

Note: This is a suggested schedule which may be adapted to suit each hospital's department but is an attempt to standardize the rotations as much as possible.

*Pediatric and Specialty rotations will be scheduled over 5th and 6th semesters. One week of a specialty rotation, 2 weeks of CT, 1 week of Interventional and 2 weeks at CHKD must be completed over both 5th and 6th semesters. In the 6th semester students will rotate to areas they have not yet rotated through. Ex: If student rotated through CT and Angiography in the 5th semester they must complete CHKD and a specialty area in the 6th semester. A third consecutive week at CHKD may substitute for one specialty rotation. Students may choose to spend an additional week in CT. Students may also choose **one** extra week in Interventional rather than one specialty rotation. All rotations must total 15 weeks or 45 days.

Sample 6th Semester Schedule:

2 weeks CHKD	or	2 weeks CT
1 week MRI		1 week Interventional

SPECIALTY ROTATION SCHEDULES

The specialty rotation schedule for CHKD and other Specialty areas includes:

Specialty	Week(s)	Semester
CHKD	2-weeks	5 th or 6 th
CT	1 week	4 th
	2 week	5 th or 6 th
Interventional	1 week	5 th or 6 th
Specialty Rotation (student's choice)	1 week	5 th or 6 th

Specialty Rotations

Specialty Rotations include: MRI, Ultrasound, Mammography, Nuclear Medicine/Molecular Imaging, Cardiac Catheterization, Oncology and Bone Densitometry. Students may add an additional week to their CHKD rotation to substitute for a specialty rotation. Students who have any written clinical absence/tardy warning cannot participate in specialty rotations other than CHKD. Students who choose an extra week at CHKD will not be able to rotate to any other specialty area. This special CHKD rotation would be a consecutive 3-week rotation in either the 5th or 6th semester. Students may also choose to spend one extra week in CT or Interventional/ Angiography rather than in a specialty area. Students may be assigned to either SVBGH, SNGH or Chesapeake or their previous clinical site for an Oncology rotation if the current site does not have an Oncology department.

Students should not be pulled from specialty rotations to perform diagnostic exams except to perform required competencies and only then at the discretion of their clinical instructor.

PLEASE NOTE: STUDENTS WITH METALLIC IMPLANTS OR FOREIGN BODIES MAY NOT DO MRI ROTATIONS FOR PERSONAL SAFETY AND ARE REQUIRED TO CHOOSE AN ALTERNATIVE SPECIALTY ROTATION. REFER TO THE MRI SAFETY PROTOCOL IN THE APPENDICES OF THIS HANDBOOK, AND CONSULT WITH PROGRAM OFFICIALS IF YOU HAVE QUESTIONS OR CONCERNS ABOUT THIS MATTER.

Specialty Rotation Attendance Record

All students will continue to document their clinical attendance in Trajecsys on a designated computer in the radiology department. Any student falsifying time records could be dismissed from the program.

CHILDREN'S HOSPITAL OF THE KING'S DAUGHTERS ROTATION

All students will participate in a consecutive two week or optional three-week rotation at the Children's Hospital of the King's Daughters during either the fifth or sixth semester of coordinated practice. Students may be assigned to CHKD during the 4th summer semester to offset volume of students rotating in 5th and 6th semester, and to take advantage of the summer patient patterns. Students will be assigned by the clinical coordinator and the schedule will be coordinated with CHKD.

CHKD Orientation Session. All students are required to attend a CHKD orientation session prior to their rotation and complete a CHKD Student Profile. The orientation session is usually held at the beginning of the fall semester. The clinical coordinator must complete and submit a CHKD Student Profile form for each student prior to the start of each student's CHKD rotation.

CHKD Student Profile. During the CHKD orientation session, the CHKD Student Profile form must be completed by all students and signed by the clinical coordinator. Proof of program required immunizations, the influenza vaccine and completed background checks must be documented and verified by the clinical coordinator prior to the start of CHKD rotations in the fall semester. CHKD requires COVID-19 vaccine.

CHKD Attendance Records. Students will document their daily attendance at CHKD electronically using Trajecsys. The CHKD clinical supervisor will designate a RAD department computer for students to access so their clinical instructors can verify their attendance while they are at CHKD. RAD Program clinical attendance and tardiness policies apply to all students while doing their CHKD rotation. Students need to obtain permission from the CHKD clinical instructor when the assigned hours vary; they must also follow up by communicating with their assigned clinical instructors.

Clinical Tally Sheet. Students should document their **clinical procedures** performed at CHKD as well as any **repeat radiographic images electronically** using Trajecsys. The CHKD clinical supervisor will designate a RAD department computer for students to access so their clinical instructors can verify their **clinical tally sheet** while they are at CHKD.

RADIOLOGIST AND RADIOLOGY NURSE ROTATIONS

If possible, students will be scheduled by their clinical instructor with a Radiologist while diagnosing images for exposure to radiographic pathology and a Radiology Nurse for enhancement of patient care skills per each department's schedule and availability.

If possible, students will be scheduled starting in the 4th semester and throughout the 5th and 6th semesters.

EVENING / WEEKEND ROTATION POLICIES

Students will begin rotations on evening and weekend shifts in either the third or fourth semester of the program. Students may voluntarily complete 1 evening/weekend rotation in order to meet clinical objectives when exams or number of technologists may be limited in the clinical environment in the 3rd semester. This voluntary evening/weekend rotation will substitute for a diagnostic or ER rotation.

Evening / Weekend Schedule

Beginning in the 4th semester students assigned on evening/weekend rotations must complete 6 evenings within a two-week period. A standard rotation schedule has been established for the required evening and weekend rotation during the senior year and states that each student must do 4 weeknights and 2 weekend evenings during the specified two-week rotation. Friday and Saturday are considered the weekend evenings, Sunday for the purpose of the trauma objectives is considered a weeknight.

There are many different choices. Listed are some possible combinations that a student might choose for their rotation during either the 4th, 5th or 6th semester.

Three clinic days per week:

Example 1			
Week 1	Tuesday	Thursday	Saturday
Week 2	Monday	Wednesday	Friday
Hours: 2 – 10:30pm or 2:30 – 11pm			

Perform all six days in a row, and take a week off from clinic:

Example 2						
Week 1	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 2	OFF FROM CLINIC					
Hours: 2 – 10:30pm or 2:30 – 11pm						

Continue on your regular 5th or 6th semester schedule, but on the evening shift:

Example 3			
Week 1	Monday	Wednesday	Friday
Week 2	Monday	Wednesday	Friday
Hours: 2 – 10:30pm or 2:30 – 11pm			

*Keep in mind, the rotation must include **2 Fridays** or **2 Saturdays** or **1 Friday and 1 Saturday** evening.

Rules / Guidelines For Evening / Weekend Rotation

1. Students may arrange the schedule as they wish to accommodate the stated combination of weekends evenings and weeknights. Once the schedule is determined, the clinical instructor must approve the schedule in advance. All evening - weekend schedules must be agreed upon and put in writing by the clinical instructor no later than **4:00 p.m.** on the Wednesday before the rotation begins on Monday. Failure to do so will result in an **oral warning**.
2. The instructor will forward a copy of the schedule to the floor supervisor to be posted in the technologist work area. The schedule includes a space for the tech/supervisor's signature. At the end of each shift, the student must obtain the supervising technologist's signature on the schedule to verify his/her hours. The student will continue to sign in and out using the timeclock in Trajecsys as well.
3. Once the student has submitted and finalized their evening and weekend schedule, the student may change his or her schedule **one time only** without a penalty. After **one** time an oral warning will be issued. This rule applies to make-up time as well. Any changes, if possible, should be approved in advance and will be subject to the RAD Program's attendance policy. All scheduled time that is missed, will be handled the same as regularly scheduled clinical time in terms of attendance, tardiness, warnings, etc.
4. If circumstances are unavoidable, and a schedule change must be made, students must inform their clinical instructor on the day of schedule change by **30 minutes** after the start of the shift or an oral warning will be issued.
5. The agreed upon specified hours of 2:00-10:30 pm or 2:30- 11:00 pm must be adhered to.
6. The scheduled hours include 45 minutes for a dinner break. Students **may not** skip dinner and deduct 45 minutes from the end of the shift.
7. Weekend and weeknight evenings may not be split into two half shifts.
8. All students must check in with the clinical instructor or shift supervisor at the beginning of the shift. Students will be dismissed at the end of the shift by the clinical instructor or shift supervisor on evenings and weekends. Any student who leaves the clinical site without being dismissed will receive a **written warning**.
9. Students are given flexible scheduling options for their evening/ weekend rotation and should complete 6 shifts during the rotation. If a holiday falls during the rotation, the student may take the holiday off as they are not permitted to attend clinic when the college is closed. Should the student choose to complete an extra shift during the rotation due to the holiday, they will be given comp time when returning to the day shift. Students should not schedule any previously earned comp time during the 6 day evening/weekend rotation.

Evening / Weekend Rotation Responsibilities

1. **Student Responsibilities**
 - a. Adhere to assigned schedule - contact department and clinical instructor or clinical coordinator if unable to attend clinic at the designated time.

- b. Under the direct supervision of a registered radiographer, perform radiographic exams as assigned
- c. Only perform competencies with designated evening/weekend technologists who have been trained to perform competencies (consult instructor provided *Evening/Weekend Technologist list*).
- d. Communicate and clarify your individual level of competence to the staff at the beginning of the rotation.
- e. Communicate with staff whenever you are unsure of yourself.
- f. Always acquire *direct supervision* to repeat an image(s). The Program's *Repeat Radiograph Policy* requires the presence of a Registered Radiographer. Document the supervising technologist's initials and the reason for the repeat on the *Repeat section of the Clinical Tally Sheet*.
- g. Under the direct supervision of a registered radiographer, perform trauma radiographic exams as much as possible.
- h. Under the direct supervision of a registered radiographer, cooperate as a team player in order to achieve shift objectives.

2. **Radiographer Responsibilities**

- a. Document student attendance.
- b. Orient the student to the evening shift's policies.
- c. Discuss meal times and break times with students.
- d. Under direct supervision, encourage students to attempt trauma exams/mobile exams as much as possible.
- e. Under direct supervision, include students when performing portable/surgical exams. (Students may not go alone.)
- f. Adhere to "Indirect Supervision of Students" policy. (Radiographers immediately available to assist student if needed). Initial appropriate section of the student's *Clinical Tally Sheet*.
- g. Adhere to Program's *Repeat Radiograph Policy*. Directly supervise students with all necessary repeat images.
- h. Evaluate all student images.
- i. Encourage student to participate as a shift member and include them as part of the "team."
- j. Only designated evening/weekend technologists who have been trained to perform competencies should perform competencies with students on evenings and weekends. These technologists will participate in an orientation and training session and be provided with a copy of the TCC RAD Program ***Technologist Handbook: Preceptor Guidelines for Performing Competencies***.

Clinical Objectives for Evening / Weekend Rotation, 4TH – 6TH Clinical Semesters

Upon completion of the evening and weekend rotation, with a minimum of 86 **percent** accuracy, the senior Radiography student will be able to:

1. Function as an efficient team player.
2. When required as a team player and in conjunction with evening and weekend staff, process a patient requisition, complete required computer procedures and follow through with transport of the patient to and from the radiology department.
3. Following the radiology department protocol, under direct supervision of a registered radiographer, respond promptly to stat calls from the emergency room, operating room, or critical care units, completing portable examinations in a proficient manner.
4. Under the direct supervision of a registered radiographer, closely monitor critical trauma patients and respond appropriately to changes in their condition.
5. In the case of a compromised and critical trauma patient, under the direct supervision of a registered radiographer, interact appropriately with assertiveness skills to obtain patient cooperation to ensure quality radiographs.
6. Under the direct supervision of a registered radiographer, exhibit empathy and therapeutic communication skills when caring for the critical trauma and compromised patient.

*** **Note:** During the evening and weekend rotation, clinical objectives established for patient care, manipulation, radiographic technique, radiation protection, patient processing and transportation and positioning skills must be met, as outlined in the clinical syllabus.

CLINICAL INSTRUCTORS, ADJUNCT CLINICAL FACULTY & CLINICAL SITE EVALUATIONS

Students will have the opportunity to complete clinical instructor, adjunct clinical faculty and clinical site evaluations during the 2nd, 3rd, 4th, 5th and 6th semesters. Surveys will be available electronically towards the end of each semester. The Clinical Coordinator will provide the results to the Clinical Instructor, Clinical Site and Adjunct Clinical Faculty. All surveys provided will remain anonymous.

Completion of the 4th and 6th semester final Clinical Instructor, Clinical Site, CHKD (6th semester only) and Adjunct Clinical Faculty evaluations is highly encouraged as they provide valuable feedback for program assessment and improvement. Program Faculty and Clinical instructors suggest discussion of any clinical issues, as they occur so they may be resolved promptly. Students should discuss any remaining clinical issues or complaints with their clinical instructor or program faculty on either the clinical site or clinical instructor evaluations.

CLINICAL DRESS CODE

The personal appearance and demeanor of radiography program students at the affiliate hospitals reflect both college and program standards and are indicative of the student's interest and pride in their profession.

The uniform dress code is one mutually agreed upon by TCC and its clinical affiliates. Students are expected to present a neat, clean, and professional appearance at all times. Uniforms are to be worn for all clinical assignments or

when officially representing the TCC radiography program. The student uniform and patch may be purchased from the bookstore using financial aid. Each student will be responsible for purchasing their own well-fitting uniforms.

1. All students will wear Caribbean blue scrub top and pants.
2. White, black, or gray professional/hospital/grade shoes made of non-absorbent and non-perforated materials should be worn with the student uniform. All shoes must be all leather/vinyl (nonporous) with minimal or no trim color– no nylon or canvas material. Clogs must be solid (without holes) and should have heel straps or full foot coverage. Black, gray, or white socks must be worn. Please note: minimal trim shoe colors will need to be approved by program officials.

Note: No open-toe shoes or heels allowed!! White, black, or gray Clogs are permitted!!

3. Students may choose from the following cover-ups:
 - A. White lab coat with patch
 - B. White sweater (must be long enough to cover top)
 - C. Caribbean blue long-sleeve warm-up jacket with patch
4. A plain white or black shirt may be worn under the uniform scrub top. No graphic/printed T-shirts or low-cut shirts are permitted. Shirts should be worn under the uniform scrub top to cover chest hair or cleavage.
5. A school patch must be worn on the right lapel of the uniform scrub top. The patch should be sewn on (or velcro may be used). Pinning the patch onto the uniform is not acceptable. Patches may be purchased through the TCC Barnes & Noble bookstore at an approximate cost of \$8.00 each.
6. Hair is to be neat, clean, and, preferably, pinned up. Students who have long hair and do not wear it up must wear it back from their faces and not allow it to fall forward. Clinical instructors have authority to approve or disapprove hair styles, depending on the particular hospital's dress code. No faddish or outlandish hairstyles or colors will be permitted in clinic. Prohibited styles include spikes, mohawks, or any radical hair coloring. **Radical hair coloring includes any colors that are not naturally occurring.** If you have any questions concerning a new hairstyle, please consult the clinical coordinator.
7. Cosmetics and perfumes must be kept to a minimum.
8. Only clear or neutral colored nail polish will be allowed. Nails must be clean, neat and in good repair. The clinical instructor reserves the right to approve or disapprove nail colors. No artificial nails or jewelry to include extension, tips, gels, including gel polish (“Shellac”) and acrylic overlay, resin wraps, acrylic fingernails, glued on nails and appliques are permitted. In addition, certain hospital's dress codes do not allow nail polish at all. Students must abide by individual hospital policy.
9. Jewelry is limited to engagement and wedding rings, school or registry pins, a wristwatch and small plain earrings. Facial jewelry is not permitted in the clinical setting. Visible body, neck, face, nose or tongue piercing and jewelry will not be permitted in the clinical setting and must be removed during clinical hours. Large or gaudy necklaces or earrings are not appropriate and are not permitted in the clinical setting.
10. Visible tattoos **may not be** permitted in the clinical setting. Tattoos may require concealment.
11. TCC Identification badges are to be worn at all times in the clinical area.
12. Students should dress appropriately and professionally during all clinical rotations. All uniforms and shoes are to be clean, pressed and in good repair.

13. In reference to hair, nails, earrings and other issues, students must adhere to the clinical site protocol.
14. Lead markers and the dosimeter are considered part of the student uniform. The dosimeter must be worn at all times during coordinated practice.
15. A student may arrive to clinic during their surgery rotation in **proper attire** and wear O.R. scrubs for the day.
16. Except for a surgical rotation, an **oral warning** will be issued to any student arriving in clinic not in the proper and specified uniform attire and subsequent violations will result in a **written warning**.

PROFESSIONAL CONDUCT

Each student reflects the school, therefore, it is of the utmost importance that appearance, attitude and conduct be above reproach while in the clinical area. Essentially, students are expected to conduct themselves as professionals at all times. Any conduct that tends to discredit or cause injury to the school or the patient may result in disciplinary probation or dismissal, depending on the nature of the offense.

The clinical education center representative reserves the right to refuse admission or readmission to any TCC radiography student who is involved in any activity not considered professional or conducive to proper patient care. The facility reserves the right to request that the College withdraw from the affiliation any student whose health or performance is a detriment to patient well-being or to the achievement of the stated objectives of the affiliation. Students may then voluntarily withdraw from the Program by the College's published withdrawal date for that semester to avoid academic penalty. If the deadline date for withdrawal has passed, students may be withdrawn *from the Program if they have been on clinical probation or if poor clinical performance, issues or problems severely impact patient care and safety.* In this case, students will receive a **grade of F**.

STUDENT RECORDS ACCESS POLICY

Student records and private affairs must be kept confidential per the FERPA Law- 1974 Family Educational Rights and Privacy Act. All student paper clinical files and records are kept in a locked cabinet at each clinical facility under the close supervision of the clinical instructor. The file cabinet will remain locked at all times. All students have the right to examine their own records but do not have the right to have access to other students' records. When a student desires to review their clinical records, the clinical instructor will permit the student to view their own records in the presence of the instructor. Otherwise, access to student records is denied maintaining the right to privacy for **all** students. Online records are password protected in Trajecsys or Canvas. The student has access to their records from any internet device with their password.

CONTRAST INJECTION POLICY

Students are not permitted to inject contrast media into a patient while performing intravenous contrast studies. Students will be allowed to push in the contrast media only if supervised by a qualified R.T., and if the R. T. remains in the room with the student during the procedure. Clinical instructors may inject contrast media since they are hospital employees. TCC's malpractice insurance will probably not cover students or TCC paid faculty from the risks associated with injecting contrast media and therefore, they should not inject contrast without the direct supervision of a qualified hospital employee, or the hospital employed clinical instructor.

JOB INTERVIEWS / JOB ORIENTATION

During the second year of coordinated practice, the student will be granted **8 hours** for a local job interview. Other job and advanced school interviews scheduled during clinical hours will be granted by administrative decision only.

The **8 hours** granted for an interview may be used for radiology employment orientation. Documentation of the scheduled interview or orientation must be presented to the clinical instructor prior to the scheduled day. The interview time allotted can be applied to an interview or orientation in the 4th, 5th, or 6th semester with approval from the clinical coordinator.

CRITERIA FOR CURRENTLY ENROLLED RADIOGRAPHY STUDENTS TO ENROLL IN ADVANCED MODALITY COURSES

To enroll in CT/Mammography Specialty Courses:

The primary responsibility of the radiography student is to concentrate on the requirements for the AAS degree in Radiography and to pass the ARRT in the primary discipline. Students who wish to take additional RAD courses while completing the AAS degree must meet the following criteria:

1. Maintain an average GPA of 3.5 or above in all RAD classes.
2. Maintain an average A grade on all clinical instructor evaluations to date.
3. Will not have any tardy or attendance warnings.
- 4.. Be in good standing in the RAD program (no clinical probation).

If the student meets the criteria, they may apply to the specialty program as a registered technologist would. The MRI Career studies certificate requires 24 hours of clinical per semester which exceeds what a currently enrolled RAD student could add to their schedules, so the MRI program can be pursued following graduation from Radiography.

STAFF TECHNOLOGISTS

Students are supervised in the clinical sites by registered staff technologists who have a role in the clinical education of students. Staff technologists are an integral part of their education and do have a major role in their learning.

Role of Staff Technologists in Clinical Education

1. To help the student develop technical skills as well as values and attitudes related to the profession of Radiologic Technology.
2. To encourage the student to participate in every phase of the exam to the extent their individual skills and abilities allow, encouraging the student to recall and apply previous experiences.
3. *To facilitate student learning so the student becomes a more independent, self-directed learner.* The staff technologist becomes a facilitator who guides the student through his or her own individual learning process.
4. To acquire knowledge on how adults learn: Adult learning consists of the following principles:
 - The need to know why they are learning a procedure or why something is done a certain way.
 - The need to ask questions - so allow students to ask them.
 - Help adults be less dependent and more self-directed.
 - Determine each student's needs and experiences.
 - Assist the student through demonstrating techniques.
 - Help adults relate the tasks learned to real-life problems and situations. (Applying classroom learning to real-life situations).
 - Realize adults are externally and internally motivated to learn.
5. Motivation for adult learning includes the following factors:

- To gain employment
 - A desire to increase job satisfaction
 - To increase self-esteem
 - To improve their quality of life
6. To become aware of different learning styles of students and to capitalize on this information

Types of learning styles

1. *Goal-oriented learners*
 2. *Affective learners - value-oriented*
 3. *Learners - in - transition - not sure of their goals*
 4. *Integrated learners - life and career integrated into one; very self-directed*
 5. *Risk takers - like to be alone and very self – confident*
7. To be able to assess the incoming student's level and abilities. Abilities range from novice to advanced beginner to competent to an expert.
8. To facilitate experiential learning on a one to one basis - reality based, clinical education. The staff technologist passes his or her clinical expertise on to the student.
9. To have a positive relationship with their employer and adhere to the employer's goals, programs and policies. Set a good example for the students.
10. To show an example to the student as a true professional. Students always observe techs and model their behavior.
11. To share your talent and experience with students and make them feel that you want to work with them.
12. Become familiar with the student's rotation objectives and learn what the student needs to know during their rotation with you.
13. To do a formal evaluation on the student (usually written) and also an informal evaluation (feedback) on a daily basis.
14. Support students in their learning and challenge them to perform better.
15. Role model, clinical supervisor and teacher. Enthusiasm for learning and teaching should be evident and be passed on to students.
16. Keep up with Educational and Technical skills and attend Society and Professional meetings.

Staff Technologist Recognition

By the end of the 4th semester, radiography students have completed a year of clinical education and will vote to recognize a staff technologist who has helped them to achieve their clinical goals through professionalism, technical expertise and support. The dedicated technologist who receives the most votes at each clinical site will be presented with the **Priscilla Buford Technologist of the Year Award Certificate** by the students in the last week of the summer semester. A letter of recognition will also be sent to the staff technologist's supervisor. The award is in memory of **Priscilla Buford**, three-time recipient of the previously named *Technologist of the Year Award*. Priscilla, a Class of 2004 graduate, was loved and respected by the Sentara Careplex students and passed away in 2010.

CLINICAL GRADING SYSTEM

To receive a grade for Clinical Procedures (clinic) students must complete certain objectives each semester. The clinical grade is comprised of several parts. Each carries a percentage which varies from semester to semester. The specific parts which comprise the clinical grade are:

1. Clinical Category Competencies
2. Clinical Instructor Evaluations
3. Equipment Check-offs /Orientation
4. Image Critiques
5. Random Clinical Simulations
6. Terminal Competencies

These six components of the clinical grade may be documented and recorded on each individual student in Trajecsys and in the clinical folder on the Cumulative Record of Clinical Objectives.

Each component of the clinical grade will be recorded for all students on each semester's *Final Grade Roster* by the clinical instructor. The final grade rosters may be accessed by the clinical instructor on **Canvas** under the RAD Forum, Clinical Instructor Documents Module.

Following is an outline of percentages carried per semester by each component. Students note that deadlines are specified for completing certain objectives by midterm and end of semesters.

Following the percentage breakdown, a separate section fully explains each component. This will help the student become familiar with specifics of the grading system.

****Note:** Clinical absences, tardiness, oral warnings, written warnings and clinical **probation** are incorporated into clinical grade! Refer to the attendance, tardiness, and probation policies for details regarding penalties.

BREAKDOWN OF CLINICAL OBJECTIVES

Second Semester (Fall):

(4)	Competencies – (Chest required)	50 %
(4)	Image Critiques	5 %
(2)	Clinical Instructor Evaluations	
	Mid-term Evaluation	10 %
	Final Evaluation	25 %
	Orientation: Equipment Check-Offs & PACE	10 %

* One competency must be completed by mid-term.

* Only one competency allowed in the 15th week.

* Attempt to perform the documentation of enema tip placement by the end of the 2nd semester.

*May perform Specialty Competencies covered in RAD 121.

Third Semester (Spring):

(10)	Competencies	50 %
(10)	Image Critiques	5 %
(*6)	Random Clinical Simulations (*includes 3 instructor simulations)	10%
(2)	Clinical Instructor Evaluations	
	Mid-term Evaluation	10 %
	Final Evaluation	25 %

- * Four competencies must be completed by mid-term.
- * Limit of one competency in the 15th week.
- * May perform Specialty Competencies covered in RAD 121/221

Fourth Semester (Summer):

(11)	Competencies	50 %
(11)	Image Critiques	5 %
(*6)	Random Clinical Simulations (*includes 3 instructor simulations)	10%
(2)	Clinical Instructor Evaluations	
	Mid-term Evaluation	8 %
	Final Evaluation	20 %
(1)	RAD First Year Mock Registry Exam, Exposures Test, & Exposure Assignment	7%

- * Four competencies must be completed by mid-term.
- * Limit of one competency in the 10th week.
- * Must have two fluoroscopy performances and/or one competency.
- * May perform and comp Specialty Competencies
- * Failing the First Year Mock will result in an oral warning, it will be put on the retest document under Final Exam, and student will retake First Year Mock until receiving a 80% or higher.

Fifth Semester (Fall):

(12)	Competencies	50 %
(12)	Image Critiques	5 %
(*6)	Random Clinical Simulations (*includes 3 instructor simulations)	10%
(2)	Clinical Instructor Evaluations	
	Mid-term Evaluation	10 %
	Final Evaluation	25 %
	Orientation and Equipment Check-Offs (Grade is added as one competency exam to comp grade)	

- * Five competencies must be completed by mid-term.
- * Limit of one competency in the 15th week.
- * A minimum of 36 competencies listed on the *Record of Competency* form must be completed by the end of the 5th semester (by the end of the **15th week**).
- * Should have completed a barium Enema by the end of the 5th semester, otherwise a zero grade may be averaged in with the competency grade.
- * May perform and comp Specialty Competencies

Sixth Semester (Spring):

(14)	Competencies	45 %
(14)	Image Critiques	5 %
(3)	Random Clinical Simulations	10%
(3)	Terminal Competencies	10%
(2)	Clinical Instructor Evaluations	
	Mid-term Evaluation	10 %
	Final Evaluation	20 %

- * Seven competencies must be completed by mid-term.
- * Limit of one competency in the 15th week.
- * Must complete all 36 starred *true* exams listed on the *Record of Competency* form. Only certain required exams may be simulated. A grade reduction of **10 points** may be assigned to any examination that has to be simulated in the 6th semester at the discretion of clinical instructor.
- * Must complete 15 of the 34 optional exams listed on the *Record of Competency* form.
- * Performance of terminal competencies.
- * Performance of program specialty competency exams listed on the *Record of Competency* form should be completed and documented by the end of the 6th semester.

ORIENTATION AND EQUIPMENT CHECK-OFFS

Upon assignment to the clinical area in the second semester, all students will be given a comprehensive orientation to the department’s radiographic equipment. This orientation will be conducted by the clinical instructor and will include instructions on proper operation of equipment locks and controls, table movement, fluoroscopic controls and set-up, suction and oxygen equipment, assessment of vital signs, computer system and equipment and mobile equipment.

By mid-semester, students should be prepared to be checked off on all items covered in the orientation. However, check-offs can be performed as the students rotate through each room and area. Students must score at least **86** percent on the check-off before being allowed to perform competency exams. Anyone who scores below **86** percent must do remedial work in the area of weakness.

Because equipment varies in each hospital, check-offs will be done each time students rotate to a new clinical site (second and fifth semesters). In the **fifth** semester, equipment orientation check-offs will be graded and counted as one competency exam and be averaged in with the 5th semester competency grade.

C-Arm Orientation

In addition to the classroom orientation and RAD 221 lab check-off, a clinical orientation to the C-arm will be given to students beginning in the 2nd semester (first clinical semester). Orientation to the C- arm also should be conducted

with students when they rotate to their second clinical site – at the beginning of the 5th semester. A C-arm orientation may also be conducted in the 4th semester to reinforce learning retention.

Panorex Orientation

If students have access to a Panorex unit at their clinical site, they should receive a formal orientation to the Panorex machine beginning in the fourth semester. Students have completed their headwork labs by the end of the 3rd semester and should be ready to achieve a **perform or check-off** and complete a mandible or TMJ competency starting in the fourth semester.

VITAL SIGNS COMPETENCY

Blood pressure competencies should be performed every semester with each room rotation. Vital sign competencies should be assessed 5 or 6 times each semester and during terminal competencies in the 6th semester.

SPECIALTY ROTATION COMPETENCIES

In addition to the 51 required competency exams, the Program suggests that students perform specialty competencies on other pediatric, geriatric, and uncommon procedures they may have the opportunity to perform and comp in their clinical site that are not specifically stipulated as required by the ARRT or the Program. These procedures require documented “performs” and competency evaluations which are graded on a pass/fail basis and they must be performed with the clinical instructor. These exams are included on the “Record of Competencies” form and in Trajecsys as specialty exams. Students who successfully complete three specialty competencies and image critiques will earn 8 hours of clinical time. This time may be used as a day off, or may be put toward clinical time missed. A minimum of three of the specialty competencies must be completed for additional points added to each semester’s student evaluations. The specialty exams include:

Apical Lordotic Chest	Geriatric Contrast Study	Sialogram
Bone Density	BE Tipping	Skeletal Survey
Clements/Nakayama Hip	OR Cross Table Lat Spine	Tomograms
CT Abdomen	SC Joints	Weight Bearing Extremity
CT Head	Orthoroentgenogram	Defecating Proctogram
CT Thorax	Shunt Series	

Specialty exams allow students to gain competence on site specific clinical procedures. Knowledge of these uncommon exams may prove beneficial to the students as potential employees of the site.

CT Competencies

Students may perform a CT of the head, an abdomen and a thorax for a total of 3 competencies during the CT rotations. The 3 CT exams will count towards the 8 hours of earned clinic time for completing 3 specialty competency exams.

OR Lateral Spine Competency

The OR cross-table lateral spine exams are considered specialty competencies. Students must take a cross-table lateral spine image in the OR designated as a **non-C-arm procedure** to receive credit as a specialty competency.

Evening / Weekend Clinical Preceptor Competencies

Students are permitted to perform competencies during their evening and weekend rotations with designated technologists at each institution who have been formally trained by TCC clinical instructors following the guidelines for performing competencies as outlined in the *Clinical Preceptor Handbook*. Evening/Weekend Clinical Preceptors may use the Radiography Program Competency Form to document competency exams. The clinical instructors will grade all competencies and perform the image critiques with students, basically overseeing and supervising the entire process.

SPECIALTY COMPETENCY SYSTEM

Students must wait until a specialty exam is reviewed in RAD 121/221 to officially “perform” specialty competency exams but may practice them at their site based on availability. Regardless of the semester, students need to perform first then comp a specialty exam. Students will follow the process described in this section to achieve a documented specialty competency.

1. Perform the specialty exam. Specialty exams may be performed as a check-off with a preceptor. Students must show evidence of performance to their clinical instructor. The student will document the exam under the *perform/participate* category on the *Clinical Tally Sheet* in *Trajecsys* and the CI will verify it once the images are approved.
2. Students must complete specialty competency evaluations only with their clinical instructor. Exceptions: if applicable, Bone Density, CT, and OR exams may be comped with designated technologists.
3. Students will be permitted to complete each specialty competency only one time.
4. The instructor will grade specialty competencies, using a regular competency form, on a pass/fail basis (minimum passing grade of 86%) and record the grade using *Trajecsys*. Grades are designated as pass or fail and will not be included in the final competency grade for the semester. Students will not be awarded 8 hours off from clinic if they fail a specialty competency.
5. Students must turn in a completed critique sheet to their clinical instructor within one week of doing the competency evaluation to receive a documented specialty competency on their *Clinical Tally Sheet*. Critique sheets are located in the RAD Program Image Critique book.
6. Clinical Instructors will grade each student’s completed critique sheets. Specific answers to some of the questions based on the actual procedures or department protocols cannot be provided to the instructors. The critique questions are designed as higher-level learning questions and many of the responses will come from the actual procedures students perform with their instructors.
7. Specialty competencies will not count towards the quantity of required competencies and students will not be permitted to complete specialty competency evaluations during the last week of the semester.
8. *REWARD*. For every three specialty competency evaluations completed and documented with completed critique sheets, students will earn 8 hours of clinical time.

Specific Rules for Free Clinic Time

1. When students have passed three specialty competencies, they will earn 8 hours off from clinic.

2. Students should be aware that all end of semester competency requirements must be met when using earned time. Students may use reserve and current semester competencies to satisfy the semester clinical requirements.
3. Students are encouraged to take 8 hours off in the current semester but will be allowed to accumulate the time and take time off in another semester.
4. Students may choose to apply the earned 8 hours to reduce their cumulative clinical absences and hours will be deducted from clinical time missed.

RESERVE COMPETENCY SYSTEM

The program's current competency system includes a "reserve" or "extra" competency category. This system allows the student to accumulate competencies in a reserve category beyond the required number for each semester.

Reserve competencies will **only** be used when a student falls short in any of these categories: **number required in each category, required number for each semester, and when a required item is needed as a competency.** In any given semester, reserve competencies **must be used** to satisfy the required number of competencies by midterm if a student falls short of that number. If the reserve competencies are not used during the student's training, they will be averaged in with the required competencies in the 6th semester and become part of the 6th semester final competency grade.

Performance of reserve competencies is encouraged at all sites especially during the freshman year. Reserve competencies should not become excessive at the expense of any individual student. Instructors should balance the quantity of reserve competencies by any individual student to allow other students to obtain the required number of semester competencies. At the discretion of the clinical instructor at each clinical site, there may be a limit or cap set on the quantity of reserved competencies performed in any one semester. Students may not be able to perform reserve competencies in the last week of each semester depending on the time factor and other circumstances at the discretion of the clinical instructor.

NOTE ON COMPETENCIES

1. A designated number of competencies must be completed each semester. Please see the *Breakdown of Clinical Objectives* or the clinical semester syllabus for the required number of exams. The required number must be completed first before reserve/extra competencies can be completed.
2. If a reserve competency is performed at the end of the semester, the exam may be critiqued the next semester as long as the critique is completed before the student rotates to the next clinical site.
3. Each instructor is encouraged to develop and distribute competency guidelines to their assigned students describing their expectations and practices adapted for the applicable clinical site.

Students are evaluated in many capacities. Student competency and then proficiency requires more than positioning and technical skills. The competency evaluation is an objective means of assessing student's performance/technical skills (psychomotor domain), professionalism (affective domain), patient care skills, and image analysis / critique (cognitive domain) to ensure a consistent system for grading competencies. Students can view the competency form objectives in Trajecsys under Clinical Competencies. Students are encouraged to complete the **Diagnostic History Form** when performing competencies to ensure a complete and thorough patient history.

4. **C-arm competency.** Students are permitted to comp & critique C-Arm procedures as long as the anatomy being imaged has been covered in RAD 121 or RAD 221. C-Arm orientations should be given in the 2nd or 3rd semesters, reinforced in the 4th semester and given again in the 5th semester.

5. Students must do portable/mobile/surgical procedures under **direct supervision** and may perform competencies with designated OR technologists.

PEDIATRIC COMPETENCY POLICY

Students are encouraged to perform and comp pediatric exams during their regular rotations at their assigned hospitals. These competencies will be performed and critiqued with the student's clinical instructor and documented as separate exams using Trajecsys. Chest exam (6 and younger) must be performed as a regular competency at the student's assigned clinical site to satisfy the ARRT pediatric requirement for graduation.

Since pediatric exams may not be plentiful at all clinical sites, each student will rotate to Children's Hospital of the Kings Daughters for two or three weeks during either the 4th, 5th or 6th semester. Students will be provided with an information packet prior to the CHKD rotation which will include a form in which to document performance of pediatric exams.

Students will be given the opportunity to complete a designated quantity of pediatric competencies at CHKD to earn credit for the RAD Program. To earn one competency, students must turn in the completed *Pediatric Performance Chart* and *CHKD Pediatric Critique Sheets* to their clinical instructor within **one week** of completion of their CHKD rotation. Successful completion will be documented as **one** pediatric elective competency.

During the CHKD rotation students should attempt to perform on **8** pediatric exams which must be documented on the *Pediatric Performance Chart* (Appendix E). Pediatric exams must be performed on patients 6 years of age or younger.

2	Chest Exams on patients under 2 years of age
1	Chest Exam on patients between 2 and 6 years of age
1	Abdomen Exam
1	Contrast Study
1	Upper Extremity Exam
1	Lower Extremity Exam
1	Mobile/Portable Exam

Pediatric Competency Requirements:

1. **Perform Exams.** All students are required to complete the entire *Pediatric Performance Chart* at CHKD.
2. Check-offs and exams performed at CHKD should be done with the designated CHKD clinical instructor or preceptor.
3. **Turn in Completed Critique Sheets.** Within **one-week** of completion of their CHKD rotation, all students must turn in the completed *Pediatric Performance Chart* and completed pediatric critique sheets to their clinical instructor to receive credit for the pediatric rotation even if on outside rotations or on the evening/weekend shift. The performed exams and completed Critique sheets will be graded on a **pass/fail basis**.
4. **Penalty.** A **zero** grade will be averaged in with the 5th or 6th semester final competency grade if a student fails to turn in the completed *Pediatric Performance Chart* and *Pediatric Critique sheets* to their clinical instructor within the specified **one-week** time frame.

GERIATRIC COMPETENCY EXAMS

Performance of a Geriatric Chest, Upper and Lower Extremity exam is required by the ARRT. Additional Geriatric exams are encouraged and will be designated as geriatric in the notes section of the *Clinical Tally Sheet* in Trajecsys as

Specialty Exams. Students are encouraged to complete these exams on patients at least 65 years old and physically or cognitively impaired as a result of aging to document experience with geriatric patients. Physical or cognitive impairment is up to the discretion of the CI. The point of a geriatric comp with an individual with a physical or cognitive impairment is to have the student provide additional assistance and/or adjust the procedure to accommodate the patient. Speech pathology/modified barium swallow exam on patients at least 65 years old may be performed to qualify as a documented “performed” geriatric contrast study.

Geriatric and Pediatric Technique Adjustments

Students will be required to adjust exposure factors, technique and positioning and make appropriate compensation for patient age and condition.

COMPETENCY GUIDELINES

To be eligible to perform a competency, students must meet the following criteria:

- a. Successful completion of the radiographic procedure in positioning laboratory.
- b. Documentation of previous performance of at least one other such exam on a patient must be provided (to be indicated by clinical instructor’s verification in the participating section of the *Clinical Tally Sheet* in Trajecsys). Clinical Instructors must review students’ radiographic images to document an official performance exam.
- c. Images with student markers are the minimum standard for receiving an official performance exam. Clinical instructors require all students to show them their images with their own student markers to receive a **perform or check-off**.
- d. Successful completion of a competency of the radiographic procedure and image critique with a minimum passing score of **86 %** performed with the clinical instructor or designated technologist and documented on the student’s *Clinical Tally Sheet* in Trajecsys.
- e. At the discretion of the clinical instructor, based on the quantity of assigned students and the availability of some exams, students may simulate exams and receive a documented **perform or check-off**.
- f. Competency system guidelines and practices may vary due to clinical site department protocols and practice, patient scheduling, quantity and variety of available exams and procedures and the number of students assigned at each clinical site. Students must adhere to their own clinical instructor’s guidelines and practices.

COMPETENCY POLICIES

Students will not be permitted to pick and choose the perfect ambulatory patient when performing competencies. A truly competent student should exhibit ingenuity and creativity when obtaining radiographic images of an incapacitated patient.

Under no circumstances will a competency be discarded because of an undesirable grade or a poorly performed exam. Before attempting to perform a competency exam, students should be certain that they can perform competently regardless of patient condition.

A limit of **one** competency is allowed in the last week of any semester.

Student tech assistants and unregistered technologists are **not** permitted to perform competency evaluations with students. If possible, performing competencies should take precedence over critiques. Required competencies will

also take precedence over reserve competencies. Students may choose to skip a perform and go straight to completing a competency on an exam starting in the 5th semester.

Basic Digital and Fluoroscopy/Contrast Technique Charts

The RAD Program has designed and adopted a basic digital technique chart for all diagnostic routine procedures and a separate chart for fluoro/contrast studies for students to use as a standard for Positioning Lab, random simulations and clinical competency testing.

Students are responsible for the selection and setting of a proper technique during competency testing. If calipers are available, they should correctly measure the patient and properly use the technique chart. They also are responsible for selecting proper ionization chambers in the case of employing AEC devices.

If these steps are followed logically and the resulting technique is unacceptable, then students **SHOULD NOT** be penalized. If patient pathology, age or condition calls for a technique variation, students are expected to adjust accordingly. When performing competencies, students will not be permitted to consult technique charts, and should set techniques as they have learned them.

Failed Competencies (Same Exam)

A competency score below **86** percent indicates a student has not mastered the procedure and will be considered a failed competency.

The original score will be recorded and retained as the final grade for that exam. However, students who fail the competency will be required to re-comp the exam for remediation purposes. A **written warning** will be issued if a student fails a re-comp exam the **first time**. Program officials will remediate with the student conducting a random simulation on the failed re-comp exam. A **second written warning/clinical probation** will be issued if a student fails a re-comp exam for the **second time**.

A student will be permitted to fail one competency exam without a penalty in the 2nd semester of the program, provided he/she passes the re-comp exam. Beginning in the third semester of the program, an **oral warning** will be issued when a student fails a Competency, Terminal Competency or Instructor Random Simulation. A **written warning** will be issued for failing a SECOND competency (a different exam), Terminal Competency or Instructor Random at any time throughout the remainder of the program. Upon failing a THIRD combination of any of the above exams, a **second written warning** will be issued, which will result in clinical probation. A student will be withdrawn from the Program if he/she fails any of these exams for a fourth time. This failed competency policy is cumulative throughout the 5 semesters of clinical. Critiques are subject to this rule as well.

CRITICAL ERRORS DURING COMPETENCY EVALUATIONS

Students who commit these critical errors will have a 5-point grade reduction for each critical error that may occur during the course of a competency:

- 1) Neglecting to identify the patient according to department protocol
- 2) Imaging the wrong part or side of the patient. Completing the wrong position.
- 3) Neglecting to obtain LMP on women of child bearing age (10-60)
- 4) Using the wrong marker
- 5) Performing an incorrect exam routine/protocol

The grade reduction will be noted in the comments section and reflected in the final grade. Using the wrong marker to constitute a 5-point critical error deduction is identified as:

- Placing the marker on the part incorrectly
 - Placing right marker on left side of body
 - Placing left marker on right side of body
 - Not placing a marker

ADDITIONAL CONSIDERATIONS

Barium decubitus projection may be substituted for the decubitus abdomen projection. Students will perform competencies on both the decubitus and upright abdomen exams.

Students are required by the program to perform a competency on a Barium Enema and one other elective exam such as an arthrogram or myelogram under the **Fluoroscopy Studies section** on the **Clinical Competency Record Sheet**. Epidural injections performed with the C-arm may substitute for the myelogram procedure. Students must complete at a minimum, two performs and/or one fluoroscopy competency during their first clinical rotation (by the end of the 4th semester).

Patient Care Check-offs

Students will perform Patient Care Check-offs during Patient Care lab simulations and on patients when possible in the clinical environment in the following categories: Transfer of Patient, Medical and Aseptic Technique, BE Tipping and Care of Patient Medical Equipment. A check-off grade below 86% indicates the student has not mastered the procedure and will be considered insufficient. The student will need to remediate and perform the Patient Care Check-off until a passing grade is received.

BE Tipping/Barium Enema and Defecating Proctogram Supervision

All students will be directly supervised by their clinical instructor or a registered radiographer during the barium enema and/or defecating proctogram tipping procedure and exam due to possible patient legal issues.

Opposite Gender Barium Enema and Defecating Proctogram Tipping

Instructors will follow individual department/hospital policies and protocols for permitting students to tip patients of the opposite gender.

Students Performing Fluoroscopy/Legal Issues

Students may perform fluoroscopy if required for an official perform or competency exam but **only** under the direction of a radiologist or RA.

Oxygen Hook-up

Students are not permitted to change or adjust the rate of a patient's oxygen without direct supervision. However, students are permitted to hook the patient up to the oxygen, either to the tank or to the x-ray room supply. An **oral warning** will be issued if there is a problem as a result of improper oxygen hook-up. A **written warning** will be issued if a student changes or adjusts the patient's rate of oxygen without the direct supervision of qualified medical personnel.

CLINICAL COMPETENCY/DEFICIENCY

Students should enter their senior year clinically competent. The clinical coordinator will review student midterm interim reports, final semester evaluations, and all written documentation/warnings with the clinical instructors to facilitate clinical competency assessment of students.

Clinical deficiencies will be identified as early as possible in the students' training:

- lack of organization and critical thinking skills
- lack of attention to details
- weak positioning skills
- basic skills lacking upon graduation

Assessment and remediation will be provided by the Adjunct Clinical Faculty and/or Program Faculty. A formal clinical evaluation and assessment will be administered, appropriate warnings issued, and remediation provided. A final assessment will be performed by the Adjunct Clinical Faculty and/or Program Faculty to ensure clinical competency. This assessment/evaluation system will assist in achieving the Program's Mission and Goals in graduating competent radiographers from the TCC RAD Program.

Weekly Evaluation (self-evaluation)

- to evaluate their own skills and progress
- record quantity of weekly study time
- write out weekly goals
- write out next semester goals
- self-evaluation form & justify their own grade

COMPETENCY RELATED PENALTIES

Mid-term Competency Requirements

If students do not complete required number of competencies by mid-term, a grade reduction of 10% will be imposed on required competencies obtained after mid-term. Students will **not** be penalized for lacking mid-term requirements due to a scheduling problem. Students should **only** be penalized if they had ample opportunity to obtain the required number of competencies by midterm. Note: Reserve competencies may be used to satisfy midterm requirements.

End of Semester Competencies

If students obtain more than one competency during last week of the semester, a grade reduction of 10% will be imposed.

Unfinished Competencies

Students who do not complete the minimum number of competencies required for the semester will receive a grade of **zero** for each unfinished competency. If the student passes, all unfinished competencies will be added to the next semester's requirements. The unfinished competencies must be completed before the student begins performing competencies required for that semester. *Students **must** use competencies from their reserve file to satisfy mid-term and/or end of semester requirements.*

Sixth Semester

In the 6th semester, no grade reduction should be imposed on students if all required exams have been completed prior to the 6th semester. Students may use competencies from their *reserve* file to satisfy 6th semester competency requirements.

Uncompleted Objectives in the Sixth Semester

Students, who do not complete all the required competencies, including reserves, by the last day of the 6th semester, may receive an Incomplete (I) grade. Arrangements will be made for the student to return in the summer semester to complete all requirements and graduation from the program will be delayed. Students will be allowed to simulate no more than 4 specific mandatory competencies and 10 total competency exams in order to graduate from the program.

Students may receive a grade reduction of **10 points** off the final simulation grade for each simulation performed during the last (6th) semester at the discretion of the clinical instructor.

A grade reduction will **only** be imposed if a student could have performed the competency in a previous semester and failed to do so. A grade reduction will **not** be imposed on the simulation grade if the students were unable to obtain the required competency the entire two years of training. Simulation grades will then be averaged with the other competency grades to obtain the final competency grade.

Students may use competencies from their *reserve* file to satisfy any competency requirements. Any reserve competencies not used during the student's training will be averaged in with the 14 required competencies during the last semester and become part of the final competency grade.

Note: Students should attempt to perform competency procedures common at their first clinical site prior to rotating to the second clinical site in the 5th semester. Students will be provided with a clinical affiliate **Survey of Common / Uncommon Procedures** list to assist them in completing these exams.

- a) Students may receive a **zero** grade averaged in with their competency grade if the documentation of enema tip placement has not been performed by the end of the fourth semester.
- b) Students should complete a contrast enema by the end of the fifth semester; otherwise a **zero** grade may be averaged in with their competency grade. If students did not have the opportunity to complete either contrast enema exam, the zero grade will **not** be averaged in with the 5th semester final competency grade.
- c) An **oral warning** will be issued if a student refuses to perform an exam or a competency in the 6th semester.

PERFORMANCE OF EXAMS

A student will be awarded a documented **perform** per Program policy for the actual start to finish performance of a radiographic exam that has been first checked off in positioning lab. Students should attempt to perform as many exams as possible with their clinical instructors but are permitted to do official performance exams with registered technologists due to time constraints and instructor availability.

Students who perform exams with registered technologists may receive a documented **perform** provided the performed exam contains the student's markers, is well positioned, and has adequate exposure factors when reviewed by the student's clinical instructor. *Students may be denied a performance if they do not know the manual technique used on the exam.*

Students should view performance exams as practice competencies and strive to perform the exam from start to finish with minimal instructor/technologist assistance. Any student who attempts to put through a **perform** that was done by a technologist rather than by the student themselves, is cheating. If caught cheating, the student will be reprimanded and issued appropriate warnings.

Random Simulations as Performance Exams

Students are encouraged to use 5th & 6th semester random simulations (both clinical instructor and program faculty simulations) as official **perform** exams and then are permitted to perform competencies on these exams.

In the 5th semester, students select and perform exams randomly. If students pick an exam for which they have not received an official **perform**, the successful performance of the selected exam will then count as an official **perform**.

TRAUMA COMPETENCY EXAMS

Students may perform both trauma and routine exams in the clinical setting after passing the RAD 121 /221 Lab test on routine and extremity exams. In addition, students may perform a competency exam on a trauma extremity/procedure regardless if they have passed a competency on a routine extremity exam provided they have passed the lecture exam for that particular procedure.

FIFTH AND SIXTH SEMESTER COMPETENCIES

Due to the limited availability of some exams at some of the clinical sites, students may not always have the opportunity to complete official **performs** or exams prior to completing a competency. Since it is preferable for students to perform exams on patients rather than perform simulations, students are permitted to complete competencies in the 5th & 6th semester without first completing official **performs** first.

Students always have the option of first performing an exam prior to an official competency. Instructors will not penalize a student for choosing to perform an exam instead of going directly to a competency. In addition, instructors will grade students objectively if they choose to go directly to a competency. If the student is well prepared, they should perform well on a competency. If the student is ill prepared, they may fail the competency.

IMAGE CRITIQUE SECTION OF CLINICAL COMPETENCIES

The last section of the competency evaluation is devoted to critique and evaluation. During this part of the competency, instructors inspect and evaluate the exam images with the student. During the image critique, students will be evaluated on knowledge of radiographic anatomy, central ray placement, positioning landmarks, technical factors used to include manual techniques (kV & mAs), AEC, exposure indicators and deviation index, tube angles, proper image display, radiographic quality and additional questions. Clinical instructors may review completed radiology reports with students during image critiques and if present, point out the pathology in the image.

When positioning classes begin, students will access the program's **Image Critique Book** on the RAD Forum in **Canvas** which includes the critique questions in booklet form. It is the students' responsibility to study the textbook, class lectures, and academic media to prepare to answer the questions to complete the competency grade.

Students **must** be prepared to do the image critique the next clinical day after completing a competency exam. Students may be required to supply their clinical instructor with completed critique question /answer sheets at the time of the Image Critique session. Students will **not** be allowed to refuse to do the critique on the designated day. Due to various circumstances clinical instructors are permitted to reschedule the critique.

Only questions published in the RAD Program **Image Critique Book** may be graded. Instructors may ask students additional or extra questions to enhance learning but answers to these questions should not be graded or effect the student's final competency grade for that exam.

ADDITIONAL CLINICAL TIME

Students are permitted to perform exams during extended dynamic clinical semesters, under the supervision of a registered Radiologic technologist. If a student has the motivation to volunteer to attend clinic on their own time to improve their clinical skills, they will be permitted to obtain performs and competencies with permission of the clinical site and the clinical instructor.

Depending on the situation and clinical site, clinical instructors have the right to exercise professional judgment and deny a student the opportunity to attend clinic outside of scheduled clinical time. Students will need to make a contract with their clinical instructor and schedule additional time in advance. Instructors will need approval from the clinical site supervisors prior to any student's clinical attendance. Students are not permitted to do competencies or performs when working as staff technologists or as paid student assistants. Students must be registered in a clinical course and may not attend clinical when the college is closed.

STUDENT GUIDE FOR MOBILE C-ARM PROCEDURES

The student will:

1. **Evaluate the requisition accurately.**
Operating Room C-Arm requisitions are generated manually by the technologist performing the exam, with the exception of portable examination that are pre-requested by PACU or PRE-OP. Students are still responsible to review the requisition format in order to ask questions (i.e. pregnant, previous x- rays, or safety precautions).
2. **Properly identify the patient.**
In most cases the patient will be draped with sterile covering, non-alert, awake, or orientated. Student must verify the patient with the circulating RN, Anesthesiology, and if possible the operating physician. Patients in PACU (recovery) or Pre-op can be checked with the normal identification procedure.
3. **Use sterile technique when necessary**
Students must wear surgical scrubs, surgical cap-sometimes two for long hair, and shoe covers. No dangling accessories. DO NOT TOUCH anything BLUE inside the O.R. suite or plastic. The C-Arm must be clean-free of blood or betadine prior to entering or leaving the O.R. suite. IF the c-arm is not already draped the sterile surgical tech will drape the c- arm.
4. **Practice proper transport of system**
All of the c-arms have two mobile parts: 1-A dual monitor stand with matrix and printer, 2-A c-arm with mobile base. The c-arm should be at the lowest position, all locks secure, and plugs are fastened to the monitor stand.
5. **Perform power up/down for system**
Perform power up/down for C-arm systems according to facility protocol
6. **Set correct exposure factors**
The ABS-automatic brightness stabilization tables are used on the c-arm in most cases which requires no manual input. Students will need to know the average tube current for the c-arm. Students will be assisted in performing portable chest, extremities, and lateral spine film which require setting a technique.

7. **Manipulate equipment accurately during the study**
Students will need to know how to raise, extend, oblique, angle, and place in a lateral position the c-arm tube applicable to the exam or at the physician's request.
8. **Properly orient and annotate image for monitor display**
Students should be able to identify the anatomy being x-rayed. Students should know how to annotate, reverse, flip, or straighten the image of the correct position.
9. **Practice radiation protection**
Students must check for pregnancy. Students will be responsible for making sure themselves and the patients are protected. Students must call aloud "X-ray" before exposing with the c-arm or taking a portable, along with making sure no one in the O.R. suite within a 6' radius is unprotected. Students should know other forms of radiation protection. i.e. collimation, changing technique).
10. **Manipulate stored images and print when appropriate**
Images are stored in the Image Directory on the monitor under the last and the first name of the patient. Students should know that the image on the left screen is active-this is the image that will be printed using the matrix camera or thermal printer.
11. **Practice good patient care technique**
Students must make sure that the c-arm or portable does not cause injury to the patient. The patient may not respond because of the anesthesia if they are injured.

CLINICAL INSTRUCTOR EVALUATIONS

Clinical instructors will conduct an evaluation of each student twice a semester: a mid-term report (worth 10% in 2nd, 3rd, 5th, & 6th and worth 8% in 4th) and a semester evaluation (worth 25% during 2nd, 3rd and 5th semester & 20% during 4th and 6th semester) during the final week of the semester. These evaluations will address all aspects of the student's clinical performance and will be worth **35%** of the final semester grade during 2nd, 3rd and 5th semester (& 28% during 4th and 30% during 6th semester). Points will be deducted for clinical technical deficiencies and/or affective domain problems.

Identified clinical technical deficiencies or affective domain problems will be documented by the clinical coordinator using the following system:

2 nd Semester Mid-term Interim	Official Documentation
2 nd Semester Final Evaluation	Oral Warning & 1-point Grade Reduction
3 rd Semester Mid-term Interim	1 st Written Warning & 2-point Grade Reduction
3 rd Semester Final Evaluation	2 nd Written Warning, Clinical Probation & 5-point Grade Reduction
4 th Semester Final Evaluation	Withdrawal from the TCC Radiography Program

The student midterm interim reports and final evaluation forms can be accessed by the clinical instructor on Trajecsys. It is recommended that students become very familiar with the specifics of the forms in order to concentrate on excelling in areas addressed. Standardized grading criteria is used for student evaluations. The grading criteria can be adapted for each semester and points adjusted on a semester basis.

Students are required to complete a **minimum** number of competencies in both the 5th and 6th semesters. The number of completed exams will be documented on the 5th and 6th semester midterm interim reports. Points will be added or deducted from the 5th and 6th semester final student evaluations based on the completion of the required

number of competencies. **All 51 required** exams must be completed for students to graduate from the TCC RAD Program.

Semester	Required Number of Competencies
Midterm of the 5th semester	30 competencies
End of the 5th semester	36 competencies
Midterm of the 6th semester	42 competencies
End of the 6th semester	All required competencies

Each clinical semester has an evaluation form specific to the objectives outlined in each semester's course outline (syllabus). The evaluation form reflects a progression in the student's clinical performance and technical skills and the evaluation is designed to measure this progression. Each category has basic objectives for the 2nd and 3rd semesters, formative objectives for the 4th semester, and summative objectives for the 5th and 6th semesters.

The final evaluation categories are:

- ❖ Performance and Technical Ability
- ❖ Policy and Procedure/Professionalism
- ❖ Personal Development/Affective Domain Skills
- ❖ Patient Care

Weekly Evaluation. Suggested for students. Establish a clinical log:

- to evaluate their own skills and progress
- record quantity of weekly study time
- write out weekly goals
- write out next semester goals
- self-evaluation form & justify their own grade

STAFF EVALUATIONS

Students will be assigned to specific rooms and areas of the radiology department by their clinical instructors. Additional assigned areas will include CHKD, CT, Interventional Procedures, other specialty areas and evening/weekend rotations. During their clinical rotation, students will remain in one area for two or three weeks, performing exams under direct or indirect supervision of the technologist assigned to that area. At the end of the rotation, the clinical instructor will give each student an evaluation form to be completed by the staff member with whom the student worked the most. It is the student's responsibility to pass on the evaluation form to the staff technologist and to return the completed evaluation to the clinical instructor. A sample of the Staff, Portable/OR/C-Arm, and Weekend/Evening evaluation forms are provided in the appendices. Staff evaluation forms (not graded) will be used as documentation that a student has satisfied the requirements of each rotation area and serve as input for the clinical instructor's evaluation of students.

SPECIALTY ROTATION EVALUATIONS/OBJECTIVES

Original specialty evaluations will be distributed to all specialty rotation areas for completion over the 5th and 6th semesters. Students will be provided with specialty rotation objectives which contain the same criteria for evaluation as the original evaluation forms.

All specialty area supervisors will be asked to return evaluations to each clinical site's instructor by the end of the 5th and 6th semester. Students will not retrieve the evaluations from the clinical areas but will sign the forms after they are returned to the clinical instructor to prevent the alteration or falsification of the original evaluation.

RANDOM CLINICAL SIMULATIONS

Throughout each semester, the clinical coordinator, program faculty, adjunct clinical faculty or program director periodically will visit the clinical sites to conduct random simulations. Their objective is to assure that students are competent in performing radiographic exams and procedures learned in positioning class. In addition, random simulations are one method used to assess student clinical progress and competency level.

The Random Simulation is designed to identify and assess each student's technical/positioning skills, attention to details as well as organization, time efficiency, and critical thinking skills. The random simulation forms are accessed in Trajecsys and use the same Likert scale for grading as the online competency system.

Randoms are not conducted in the 2nd semester, the students' first semester of clinical education. In the 3rd – 6th semesters, each student will perform a total of **six** random simulations per semester: three by program officials and three by their clinical instructor.

The three random simulations conducted by program officials are divided into four categories: 1) chest, abdomen and extremity exams, 2) vertebral column, contrast, and thorax studies, 3) cranium and 4) trauma/non-routine exams. To ensure total objectivity in the exam selected for a simulation, students will draw from an envelope or computer randomizer specifying the exam to be performed according to the following schedule:

Semester	Random Category
3 rd	(2) exams from Chest, Abdomen & Extremity (1) Spine, Contrast & Thorax exam
4 th , 5 th , & 6 th	(1) Trauma/non-routine exam (1) Spine, Contrast & Thorax exam (1) Cranium exam

5th semester - students select and perform exams randomly. If students pick an exam for which they have not received an official **perform**, the successful performance of the selected exam will then count as a **perform**. Students are then permitted to perform competencies on these exams for a grade.

6th semester - the clinical coordinator, program faculty, adjunct clinical faculty or program director will choose, from the *Record of Clinical Category Competencies* sheet, the random simulations students will perform, based on the exams that they have not performed a competency or "check-off" on.

Random simulations done during the 6th semester by program officials or faculty are graded and count as performs or check-offs and are documented on the *Record of Clinical Category Competencies* sheet. Students are then permitted to perform competencies on these exams for a grade.

INSTRUCTOR RANDOM SIMULATIONS

In addition to the three random simulations performed per semester by program officials and adjunct clinical faculty, the clinical instructor will also conduct a minimum of three random simulations per semester on each student. The randoms conducted by the clinical instructor will be taken from all the competencies students have performed up to that point in their training and if possible, should be conducted with real patients.

The purpose of clinical instructor random simulation testing is to ensure continued competency in those examinations and assess each student's technical/positioning skills, attention to detail, as well as organization and critical thinking skills. All six random simulations performed each semester will be averaged together and count as **10%** of the final clinical grade. Grading for random simulations is completed in Trajecsys.

Failed Instructor Random Simulations

Frequently a student performs a competency on a procedure and then is unable to perform the exam independently at a future time. If a student fails an instructor random simulation, an **oral warning** will be issued. The original random grade will be retained and averaged in as part of the total random grade for that semester and not the repeat score. In addition, the student must **recomp** the failed exam on a **real** patient for documentation purposes to prove competence with that exam.

TERMINAL COMPETENCIES

In the 6th semester, there are no random simulations conducted by the clinical instructor. Instead, students will be required to perform three terminal competency exams on patients to include both **required** and **elective** exams. A student, who performs a terminal competency on an **elective** exam, may consult the positioning textbook prior to performing the competency. The terminal competency exams will include one from each category consisting of a contrast study, a vertebral column or extremity exam and a chest or abdomen exam. For example, students will be expected to perform a contrast study (UGI), vertebral column (lumbar spine) exam and a decubitus abdomen x-ray. The Terminal competency procedures are completed in Trajecsys under Clinical Competency.

Failed Terminal Competencies

Same terminal competency exam (one exam)

An **oral warning** will be issued from the final clinic grade when a student fails a terminal competency for the first time. If a student fails the same terminal competency for the second time, a **written warning** will be issued and documented remediation required.

RAD PROGRAM TERMINAL COMPETENCIES

Upon satisfactory completion of the TCC Radiography Program, the student will be able to successfully perform the following tasks:

1. Process an x-ray request according to the assigned clinical education center procedure.
2. Properly use a Picture Archiving and Communications System (PACS) according to the assigned clinical education center and radiology department protocol.
3. Maintain the radiographic room in a neat and clean fashion.
4. Examine the radiographic requisition to verify the accuracy and completeness.
5. Set-up and prepare the radiographic equipment for operation during fluoroscopy according to radiology department protocol.
6. Record patient identification information on radiographic and/or computerized images using digital imaging protocols.
7. Process images using a CR reader and DR system.

8. Monitor the normal operations of a CR reader and DR imaging systems.
9. Communicate with the patient in an effective and professional manner.
10. Determine patient's identity by checking the wristband and/or questioning the patient. Adhere to HIPAA and department protocols.
11. Obtain a complete history from the patient and/or electronic medical record, and accurately relay to radiologist or document per department protocol.
12. Assist patient on to and off of the radiographic table using proper body mechanics.
13. Assist the patient to dress/undress in the proper manner.
14. Obtain vital signs and assess patient's condition.
15. Recognize a patient in need of emergency medical care, and properly summon help.
16. Properly clean, wash and prepare instruments for sterilization after use.
17. Use proper isolation techniques when applicable.
18. Conduct oneself in an ethical and professional manner.
19. Use sterile and aseptic technique when applicable.
20. Administer CPR when applicable.
21. Transport patients to and from radiographic room and throughout hospital.
22. Effectively position and complete exams on pediatric and geriatric patients.
23. Conduct self in a professional manner, and practice principles of medical ethics.
24. Prepare the radiographic room and the patient for the appropriate radiographic exam.
25. Position the patient and x-ray tube to produce images of the upper extremity.
26. Position the patient and x-ray tube to produce images of the lower extremity.
27. Position the patient and x-ray tube to produce images of the chest and bony thorax.
28. Position the patient and x-ray tube to produce images of the pelvic girdle and hips.
29. Position the patient and x-ray tube to produce images of the cranium and facial bones.
30. Position the patient and x-ray tube to produce images of the spinal column.
31. Position the patient and x-ray tube to produce images of the abdomen.
32. Under direct supervision of a registered radiographer, obtain images with mobile equipment.

33. Under direct supervision of a registered radiographer, obtain images in surgery.
34. Obtain images to localize foreign bodies.
35. Prepare the radiographic room for fluoroscopic studies according to radiologists' protocol.
36. Prepare the fluoroscope for operation.
37. Prepare the control panel for fluoroscopic procedures.
38. Prepare fluoroscopic room for digital fluoroscopy.
39. Prepare contrast media using barium sulfate.
40. Prepare iodinated contrast media.
41. Recognize the reactions to a contrast media and be prepared to act appropriately in the event of a reaction.
42. Position the patient and x-ray tube to produce images of the gastrointestinal tract when using contrast media.
43. When applicable, position the patient and x-ray tube to produce images of the urinary system when using contrast media.
44. When applicable, assist the physician in producing myelography images.
45. When applicable, assist the physician in producing arthrography images.
46. Use lead markers.
47. Properly warm the x-ray tube for daily use.
48. Recognize and report radiographic equipment malfunctions to the appropriate authority.
49. Properly clean radiographic equipment.
50. Select the appropriate grid when applicable.
51. Limit the size of the radiation field size to the image receptor size or smaller.
52. Set the appropriate technical factors according to the appropriate technique chart. Adhere to ALARA standards in setting technical factors in digital imaging to prevent over exposure to patients.
53. Utilize radiographic equipment locks and controls in a competent and safe manner.
54. Utilize the tube rating chart to operate the x-ray tube within safe limits of exposure factors.
55. Correctly align the image receptor, part and x-ray tube.
56. Under direct supervision, operate mobile radiographic equipment.

57. Modify the technical factors for different patients and operational conditions.
58. Utilize radiographic accessory devices to produce quality images.
59. Utilize the appropriate bucky tray.
60. Question female patients of child-bearing age to rule out possibility of pregnancy before imaging. Document per department protocols.
61. Use appropriate radiation protection practices during the operation of radiographic equipment.
62. Properly wear a monitoring device while on duty to obtain a record of radiation exposure.
63. Utilize appropriate immobilization devices to prevent movement or patient injury.
64. Protect self, other staff and visitors from unnecessary radiation exposure according to established guidelines. Adhere to ALARA standards.
65. Evaluate images for diagnostic quality.
66. Identify anatomical structure and function on images.
67. Correct any unsatisfactory images produced.
68. Identify any artifact present on images and determine the cause.
69. Possess and demonstrate knowledge of human pathology related to the various radiographic examinations.
70. Provide basic patient care procedures in an empathetic and caring manner.
71. Anticipate and meet basic patient needs.
72. Communicate with the patient to effectively provide information, preparatory instructions, and explanation of radiographic procedures and follow-up care.
73. Perform quality control tests to determine timer accuracy for radiographic equipment.
74. Determine if radiographic output is within limits for repeatability and mA linearity.
75. Properly set the control panel for utilization of the AEC system.
76. Practice appropriate safety protocol and infection control practices as specified by OSHA guidelines.
77. Practice appropriate privacy practices as specified by HIPAA guidelines.
78. Demonstrate proficiency in the operation of anatomical programming units and computerized systems.
79. Demonstrate proper venipuncture technique on the injectable arm.
80. Position pediatric patients under the age of six years to produce images of the chest.

81. When applicable, position pediatric patients to produce images of upper and lower extremities, abdomen studies, contrast studies and under direct supervision, mobile exams.
82. When applicable, position geriatric patients on a stretcher using the x-ray tube to produce images.
83. Complete specialty competency exams.
84. Demonstrate and/or simulate proper oxygen and suctioning techniques during coordinated practice.
85. Demonstrate and/or simulate proper care of patient medical equipment such as the oxygen tank and IV tubing during coordinated practice.
86. Demonstrate competency in area of critical thinking and problem-solving skills as they relate to patient care and technical requirements of producing diagnostic images.

STUDENT WEB RESOURCES

ARRT Standards of Ethics - <https://www.arrt.org/pdfs/Governing-Documents/Standards-of-Ethics.pdf>

ARRT Exam Content Specifications -
<https://www.arrt.org/pages/arrt-reference-documents/by-document-type/examination-content-specifications>

ARRT Radiography Didactic and Clinical Competency Requirements -
<https://www.arrt.org/pages/arrt-reference-documents/by-document-type/didactic-and-clinical-competency-requirements>

ARRT Rules and Regulations-
<https://assets-us-01.kc-usercontent.com/406ac8c6-58e8-00b3-e3c1-0c312965deb2/88b834a1-acf5-4595-a715-67769a39318a/arrt-rules-and-regulations.pdf>

ARRT Ethics Review Pre-Application -
<https://www.arrt.org/pages/earn-arrt-credentials/initial-requirements/ethics/ethics-review-preapplication>

JRCERT Standards - <https://www.jrcert.org/accreditation-information/accreditation-standards-2021/>

Regulatory Guide 8.13 – Instruction Concerning Prenatal Radiation Exposure -
<https://www.nrc.gov/docs/ML0037/ML003739505.pdf>

JRCERT Position Statement on Gonadal Shielding-
https://www.jrcert.org/sites/jrcert2/uploads/documents/JRCERT_Gonadal_Shielding_Position_Statement_DRAFT_5_26_21.pdf

SENIOR CITIZEN'S LAMENT



Thought I'd let my doctor check me
'Cause I didn't feel quite right.
All those aches and pains annoyed me,
And I couldn't sleep at night.

He could find no real disorder,
But he wouldn't let it rest.
What with Medicare and Blue Cross,
It wouldn't hurt to do some tests.

To the hospital he sent me,
Though I didn't feel that bad. He arranged
for them to give me every test that could
be had.

I was fluoroscoped and cystoscoped,
My aging frame displayed, Stripped upon an
ice-cold table,
While my innards were X-rayed.

I was checked for worms and parasites, For
fungus and the crud,
While they pierced me with long needles
Taking samples of blood.

Doctors came to check me over, Probed and
pushed and poked around. And to make sure I
was living,
They wired me with sound.

They have finally concluded
(Their results have filled a page)
What I have will someday kill me.
My affliction is Old Age.

APPENDICES

Appendix A

Darkroom Safety

There are many hazards associated with radiographic film processing chemicals. It is important that students who enter the darkroom be aware of these hazards, and that every effort is made to minimize potential injury and effects to their personal health. For example, chemicals used to process radiographs can produce toxic gasses. These gasses may be released slowly from stored chemicals as they age. An effort to minimize the hazards associated with these chemicals begins with familiarity with the MSDS (Material Safety Data Sheets), and proper handling and disposal of these chemicals. The purpose of MSDS is to provide detailed information on each hazardous chemical present in the lab. The information includes any hazardous effects, physical characteristics, chemical characteristics, and any protective measures necessary for the given material.

The MSDS for all chemicals used in the Radiography Darkroom are listed in the program's Emergency Safety Manual. The Radiography Program's Darkroom Safety Procedures and Guidelines are printed on the Darkroom poster and also appear in the program's Emergency Safety Manual.

General Darkroom Guidelines

Radiography students are not allowed to process radiographs without a Radiography Program Faculty member present in the lab. This is to ensure that if a chemical spill or accident occurs, the faculty member is available to provide immediate assistance and activate emergency services if necessary. Only Radiography program faculty are authorized to add replenishment chemicals to the processor. Students are not allowed to perform this task alone; however, they may assist faculty, provided personal protective equipment is worn as indicated in the MSDS. If students discover that chemistry needs to be added to the processor, an instructor must be informed immediately.

Developer Chemicals

Developer solutions are highly alkaline and are moderately to highly toxic. They are sources of the most common health problems from darkroom chemicals; most commonly skin disorders and allergies. Developers are skin and eye irritants as well as allergic sensitizers. Common ingredients in developer solutions are hydroquinone and sodium sulfite. Hydroquinone can cause depigmentation and eye injury after five or more years of repeated exposure, and is also a mutagen. Sodium sulfite decomposes to produce sulfur dioxide (a toxic gas), when heated or allowed to stand for a long time in water or acid.

Precautions when handling Developer

- If developer solution splashes on the skin or in the eyes, flush affected areas immediately with water. For eyes, flush 15-20 minutes, and consult with an eye specialist at once.
- Wear impermeable gloves and eye goggles.
- If swallowed, give emetics to induce vomiting and consult a physician immediately.
- If chemistry vapors are inhaled, get person to a fresh air area, and seek medical attention immediately.
- Cover all developer solutions when not in use to prevent release of toxic vapors and gases.
- Disposal- used developer should be neutralized (pH 7-9) and flushed with large quantities of water to the sewer system. Unused developer must be stored in original container, and if not needed, returned to vendor (Star Imaging).

Precaution When Handling Fixer:

- Ensure good ventilation of the darkroom (at least 10 air exchanges per hour).
- Wear impermeable gloves and eye goggles.
- If a splash occurs; flush affected areas immediately with water (15-20 minutes for eyes using an eye wash station).
- If ingested, large amounts of water to induce vomiting. Do NOT give emetics to induce vomiting.
- If chemicals are inhaled, get person to a fresh air source, and seek medical attention immediately.
- Cover all solutions when not in use to prevent evaporation or release of toxic vapors and gases.

General Darkroom Safety Rules

- Do not eat, drink, smoke, or apply lipstick or makeup while handling chemicals or in the darkroom.
- Always wear appropriate PPE when handling darkroom chemistry.
- Be familiar with the dangers associated with film processing chemicals. Consult the MSDS located in the Darkroom (MN118) under the automatic processor.
- Keep all chemicals off your skin, out of your mouth, and away from your eyes.
- If splashes of chemicals reach your skin, mucous membranes, or eyes, follow the MSDS protocol, and inform the lab instructor immediately.
- Students are not allowed to handle chemicals without direct supervision of a lab instructor (radiography faculty member). If replenisher chemicals are needed, you must inform the lab instructor who will perform the task.
- Report any chemical spills or leaks from stored containers to the lab instructor.
- All chemical spills must be cleaned up immediately. Area should be flooded with cold water and wiped up with paper towels, cleaning until chemicals are completely gone. Dried chemistry turns to powder which can get on your clothes and books, and then inhaled or absorbed into the skin!
- Wash hands thoroughly after working in the darkroom, and rinse out any clothes contaminated with chemicals.
- Chemicals can be flammable. Keep them away from heat sources and open flames. No smoking! In case of a minor fire, use the fire extinguisher located in the hallway near MN103.
- Activate the fire alarm as outlined in this manual for fire emergencies and inform the lab instructor immediately. In case of a major fire or explosion, evacuate the area immediately and sound the fire alarm system.
- For any other emergency that occurs in the darkroom or lab, call 911 from a regular phone or 9-911 from a college phone.

Electrical Safety Policy

Description

This policy applies to all classroom or lab operations at TCC involving electrical components of 600 volts or less where employees or students may be exposed to live parts and/or those parts that have been de-energized.

The purpose of this policy is to prevent injuries and accidents and protect TCC employees and students from low voltage electrical hazards. "Low Voltage" is defined by OSHA as components of 600 volts or less.

Definitions

Current - (measured in amps/ampere) Term used to describe electric flow. It is current that can cause electric shock.

De-energized – Electrical devices that are disconnected from all energy sources including direct electric connections, stored electric energy such as capacitors, and stored non-electrical energy in devices that could reenergize electric circuit parts.

Energized Electrical Work – Work conducted by an employee on or near an exposed energized circuit greater than 50 volts and less than or equal to 600.

FM - Factory Mutual –An independent product safety testing and certification company.

GFCI – Ground Fault Circuit Interrupter, provides additional protection from shocks by shutting off current to equipment when a change in electricity is sensed.

Grounding - Provides a safe path between electricity and the earth, preventing leakage of current. The creation of a conductive path for electricity between a circuit or the equipment to ground.

High Voltage – Electrical systems or equipment operating at or intended to operate at a sustained voltage of more than 600 volts.

Low voltage - Electrical systems or equipment operating at or intended to operate at a sustained voltage of 600 volts or less.

Polarized Plug - Helps reduce the potential for shock with easily identifiable plugs. One prong is wider than the other and can only be inserted into outlets one way.

Qualified Person – A person, designated by TCC, who by reason of experience or instruction has demonstrated familiarity with the operation to be performed and the hazards involved. Students are never allowed to perform work on electrical equipment.

Qualified Electrical Worker – A qualified person who by reason of a minimum of two years of electrical training and experience with high voltage circuits and equipment and who has demonstrated by performance familiarity with the work to be performed and the hazards involved.

Only a Qualified Electrical Worker is allowed to work on energized conductors or equipment connected to energized high-voltage systems. With the exception of replacing fuses, operating switches, or other operations that do not require the employee to contact energized high voltage conductors or energized parts of equipment, clearing trouble or emergencies involving hazard to life, no such employee shall be assigned to work alone.

Resistance - The ease with which electricity flows through the material (conductor). Materials (conductors) with higher resistance properties can become hot. (Measured in ohms)

UL® - Underwriters Laboratories is an independent product safety testing and certification organization.

Voltage - Electric potential or potential difference assigned to a circuit or system expressed in volts.

Electrical Safety Guidelines

Electrical equipment and systems throughout the campus are in use daily. Whether in an office, lab or workshop, electricity is used continuously, usually without incident. Voltages as low as 12 volts can be dangerous. When working with or around electrical equipment, one may inadvertently become part of an electrical circuit. Only trained and authorized or qualified individuals should do any repair or work on electrical equipment.

General Precautions for All Staff and Students

- Never work on “hot” or energized equipment unless it is necessary to conduct equipment troubleshooting
- Use extension cords only as temporary power sources.
- Do not connect too many pieces of equipment to the same circuit or outlet as the circuit or outlet could become overloaded.
- Be sure that ground-fault circuit interrupters (GFCI) are used in high-risk areas such as wet locations (GFCI's are designed to shut off electrical power within as little as 1/40 of a second).
- Plug strips, such as those used on computers, should be plugged directly into outlets and not into extension cords or other plug strips.
- Inspect all equipment periodically for defects or damage.
- All cords that are worn, frayed, abraded, corroded or otherwise damaged must be replaced.
- Grasp the plug to remove it from a socket - never pull the cord.
- Keep all cords away from heat, oil and sharp edges.
- Always follow the manufacturer's instructions for use and maintenance of all electrical tools and appliances. Keep equipment operating instructions on file.
- Never touch an electrical appliance and plumbing at the same time.
- Always unplug electrical appliances before attempting any repair or maintenance.
- All electrical devices must be properly grounded with approved three wire plugs unless they are "double insulated". Grounding provides a safe path for electricity to the ground, preventing leakage of current in circuits or equipment.
- All electrical equipment used on campus should be UL or FM approved.
- Keep cords out of the way of foot traffic so they don't become tripping hazards or become damaged by traffic.
- Never use electrical equipment in wet areas or run cords across wet floors.
- Ensure energized parts of electrical equipment operating at 50 volts or more are guarded against accidental contact.
- Only properly trained employees should work on electrical equipment.
- Know how to respond to emergencies such as electric shock incidents or fires.

Localized Electrical Outage

- All Staff should immediately report electric outages to Facilities Management at 757-822-7125.
- If possible, identify the defective equipment or the cause of the failure and remove it from service.
- Report this information to Facilities Management personnel upon their arrival.

Labs and Facilities Management

- **NEVER** work with electricity greater than 600 volts without specific permission, training and written procedures. Notify your supervisor immediately if you have any questions.
- Be able to recognize electrical safety hazards in your work area.
- Ensure that all authorized or qualified persons have received appropriate training in order to operate or repair equipment.
- Keep equipment in good working order to help prevent electrical accidents.
- Maintain a three-foot clearance around electrical panels.
- Electrically operated equipment must be de-energized before work may commence.
- Always follow lockout/tag-out procedures when working on electrical equipment https://www.osha.gov/OshDoc/data_General_Facts/factsheet-lockout-tagout.pdf and wear appropriate Personal Protective Equipment (PPE) such as safety glasses, rated rubber gloves, rated rubber sleeves, insulated boots, or face shield.
- Never override safety devices such as electrical interlocks.
- Remove all rings, key chains or other metal objects when working around electricity.
- Wear appropriate personal protective equipment, such as eye protection or insulated gloves, as needed.

- Never use metal ladders when working near energized wiring.
- Damp or wet environments may be dangerous when working with electricity.
- Never plug in cords that are wet or touch electrical equipment with wet hands.
- Employees working with lasers, performing hardware or software testing, or other activities that do not require direct contact with electrical components, should be aware of electrical safety issues and be alert to the possibility of other employees conducting energized work in the area.

Reporting Requirements

Damaged or Defective Electrical Equipment

Report malfunctioning equipment or devices to your Supervisor, Instructor or Facilities Management. Typical issues include:

- Damaged cords, plugs or outlets;
- Receiving a shock when touching the equipment; and
- Arcing, sparking, smoking, or otherwise malfunctioning equipment.

Any electrical equipment not operating properly should be:

- Taken out of service immediately.
- Tagged or labeled as “Do Not Use”.
- Reported to the appropriate department or individual for repair.

Do not attempt to repair any electrical equipment yourself unless you are properly trained and authorized to do so. Students are not allowed to attempt any electrical repairs.

Radiation Protection Rules – State of Virginia Bureau of Radiation Health and Safety

1. The structural shielding requirements of a new installation or of an existing one in which changes are considered should be discussed with a qualified expert.
2. All persons using x-ray equipment are responsible for using safe operating procedures to prevent injuries resulting from overexposure to radiation.
3. Monitoring of personnel will be done with dosimeters/film badges, pocket dosimeters or pocket chambers.
4. Records will be kept of all personnel monitoring results.
5. Blood counts are of no value for personnel monitoring.
6. The total filtration permanently in the useful beam shall not be less than 2.5 mm aluminum equivalent.
7. Always wear a protective apron of at least 1/4 mm of lead equivalent or stand behind a protective barrier during fluoroscopic procedures.
8. Only persons needed in a fluoroscopic room should be there during x-ray exposures.
9. A dead-man type of exposure switch should be provided for radiographic equipment.
10. The gonads of children and others who have not passed the reproductive period should be protected from the useful beam by the use of careful field collimation and special gonad shields.

11. The operator of a mobile radiographic unit shall stand at least six feet from the patient and well away from the useful beam during exposure. It is also advised that the user wear a lead apron during the x-ray exposures.
12. Never stand in the primary beam of radiation.
13. Always make sure that everyone is out of the radiographic room before making x-ray exposures.
14. Never enter a room while an exposure is being made whether it be for a test or during a procedure.
15. Technologists should always wear protective equipment when they have no other protective means such as barriers. This equipment should be checked frequently for cracks and breaks and only worn if it meets the safety requirements.
16. Never hold a child or an adult or ask another technologist to do so during a procedure. You should always ask either the parents, relatives, nurses or orderlies to aid in holding patients. Only those people who are not continually exposed to radiation should be used.
17. Always restrict the x-ray beam by using exact collimator coverage, diaphragms, cylinders or cones. This will greatly reduce the radiation exposure factor to the patient.
18. Always wear a detecting device while working with any type of radiation. During fluoroscopic procedures the detecting device should be worn at the collar.
19. Technologists should always stay as far away from the source of radiation as is physically possible to make exposures. The best protection from any type of radiation is distance.
20. Never allow anyone to loiter in an area where there is a possible hazard due to radiation.
21. The door to a radiographic room should always be closed before making an x-ray exposure. Always close doors that lead into other rooms where people are working.
22. Interlock devices shall be provided from some types of radiation, so that when any door to a treatment room is opened, either the machine will be shut off automatically, or the radiation within the room will be reduced to minimum level.
23. Never expose anyone just for the fun of it or experiment on persons who work with radiation. Do not take radiographic images without specific orders from the radiologist or the technologist in charge.
24. Never become careless or complacent while working with radiation. Always follow the set safety rules and regulations.
25. The responsibility for radiation protection against radiation injuries is up to the radiation safety officer. They will see that set standards are enforced; however, the everyday job of protection is your responsibility.

TCC Radiography Program MRI Rotation – Safety Protocol

All students enrolled in the Radiography Program are hereby advised of the potential hazards of MRI. As a student, you may opt to complete a specialty rotation in MRI, or otherwise be required to enter an MRI room where exposure to strong magnetic energy and radiofrequency waves will occur. To protect you from potential injury, the program must assure that you have been educated in MRI safety, and screened for potential devices in your body that might place you at risk for injury. Please read the MRI safety information provided and provide your signature as an indication that you understand the potential for personal injury. In addition, please complete the screening checklist to determine if you would be at risk for injury. If it is determined that you are at risk, you will be prohibited from entering the MRI department while completing clinical rotations in the Radiography Program.

MRI Safety Information

The powerful magnetic field of the MR system will attract iron-containing (also known as ferromagnetic) objects and may cause them to move suddenly and with great force. This can pose a possible risk to anyone in an object's "flight path." Great care is taken to be certain that objects such as ferromagnetic screwdrivers and oxygen tanks are not brought into the MR system area. As a student rotating through MRI, it is vital that you remove all metallic belongings in advance of entering the MRI area, including watches, jewelry, and items of clothing that have metallic threads or fasteners.

The powerful magnetic field of the MR system will pull on any iron-containing object in the body, such as certain medication pumps or aneurysm clips. For example, the MRI exam will not be performed if a ferromagnetic aneurysm clip is present because there is a risk of the clip moving or being dislodged. In some cases, certain medical implants can heat substantially when exposed to radiofrequency energy that is used during MRI. Therefore, it is very important to determine if you have any implant or other internal object that might be affected by entering the MRI area.

The magnetic field of the MR system may damage an external hearing aid or cause a heart pacemaker, electrical stimulator, or neurostimulator, to malfunction or cause injury. If you have a bullet or other metallic fragment in your body (e.g., any metallic foreign body) there is a potential risk that it could change position, possibly causing injury.

I have read the MRI safety information provided above and understand the potential for personal injury from entering the MRI department.

Print Student Name: _____

Student Signature: _____

Date: _____

MRI Screening Checklist

WARNING: When entering an MRI area, certain implants, devices, or objects may be hazardous to you and cause injury. Do not enter the MRI area if you have any questions regarding an implant, device, or object. Please answer the following questions as a screening method to ensure your safety. Remember, the MRI magnet is ALWAYS on.

Do you have or have you had?	No	Yes	If yes, please explain
Aneurysm clips, coil or graft			
Vascular stent, coil, clips or clamps			
Cardiovascular catheter / Swan-Ganz catheter			
Heart valve replacement			
Implanted filter (i.e. Inferior Vena Cava filter)			
Cardiac pacemaker, pacemaker wires or a defibrillator			
Brain surgery clips			
Implanted stimulator (i.e. vagal nerve, deep brain, TENS, bone growth)			
Implanted insulin pump, catheter or drug infusion device			
Programmable shunt or VP shunt			
Magnetically-activated implant or device			
Internal or external monitoring devices (including temperature or oxygen probes)			
Epidural or nerve block catheter			
Stapes prosthesis, cochlear implant			
Eye prosthesis, lens implant, eyelid spring or wire, retinal tack			
Eye injury with metallic object or fragment			
Internal electrodes or wires			

Do you have or have you had?	No	Yes	If yes, please explain
Medication patch (nitroglycerine, nicotine, hormones, other medication)			
Antimicrobial wound or burn dressing			
Ingested camera pill for capsule endoscopy			
Dental implant, dentures or partial plates			
Intrauterine Device (IUD)			
Penile implant			
Injury by a bullet or metallic object (shrapnel, BB)			
Tissue expander (i.e. breast expander)			
Permanent make-up, tattoo, piercing			
Hearing aid (remove before entering the MRI room)			
Artificial or prosthetic limb			
Joint replacement or resurfacing			
Radiation seeds or implants			
Any other type of device, implant or prosthesis not listed above			

I have answered these questions to the best of my ability and I understand that possible injury could result if I withhold vital information.

Print Student Name: _____

Student Signature: _____

Date: _____

Appendix B

Pregnancy Policy and Procedures

Students are advised that due to increased radio-sensitivity to the human fetus, radiation exposure may be harmful to unborn children. It is strongly recommended that all female students become familiar with Regulatory guide 8.13 published by the U.S. Nuclear Regulatory Commission – <https://www.nrc.gov/docs/ML0037/ML003739505.pdf> This document describes the risks to the unborn child from radiation received as a result of the occupational exposure of the mother. The NRC has taken the position that special protection of the unborn child should be **voluntary** and should be based on decisions made by workers (students) and employers (program officials) who are well informed about the risks involved.

Once pregnancy is confirmed, the student has the option of whether or not to inform program officials of the pregnancy. Until the pregnancy is declared, no special protection of the unborn child can be initiated. The student may execute a release as attached. The student should consult with her physician and will be permitted to continue with the physician's approval, and a declaration **in writing**.

At any time, students have the right to un-declare their pregnancy to program officials. Withdrawal of pregnancy declaration must be submitted in writing and is voluntary.

Following a physician's consultation and written permission to continue in the program, the student will be given two options:

- I. **Leave of Absence:**
 - a. Withdrawal in good standing will lead to readmission after the pregnancy at the point where the student left the program.
 - b. The program director reserves the right to require a student to audit selected RAD courses before being allowed to return to regular study. This will be handled on an individual basis and may depend on the student's grade for those courses.
- II. **Continuation in the program under the following circumstances:**
 - a. Physician's approval
 - b. The student will be provided a fetal radiation monitor to be worn at waist level under a lead apron at all times during clinical and laboratory practice.
 - c. The recorded radiation exposure on the fetal badge will be monitored monthly by the clinical coordinator to ensure that the 5 mSv (500 mR) limit (gestational) and 5 mSv (50 mR) limit (monthly) or other dosage indicated by the physician is not exceeded.
 - d. The student's schedule may be modified as soon as she notifies program officials of her pregnancy. The student will be allowed to rotate through the fluoroscopic areas or through portables and surgery by choice and on a voluntary basis.
 - e. To ensure consistency in all aspects of clinical education and meeting clinical objectives, all rotations in fluoroscopic, mobile, and surgical areas which are missed during pregnancy must be rescheduled during a semester following delivery. (If student exercises the option of not rotating through fluoro, portables

and surgery).

- f. A record will be kept to document all missed rotations and dates that the rotations are completed.
- g. Depending on the option chosen, it is conceivable that the student's graduation date may be delayed until all rotations are completed. This will depend entirely upon the delivery date in relation to the student's level in the program when becoming pregnant.
- h. The pregnant student must never hold a patient during an exposure where there is a chance that she may be placed in the primary beam.
- i. Neither the college nor any hospital affiliate will accept responsibility for alleged radiation damage to the fetus.
- j. The student must sign a form releasing the college and its affiliates of any liability associated with fetal damage. See *Pregnancy Liability Release form*.
- k. A standardized rotation schedule for the 2nd through the 6th semesters have been established so that students will know the number of days required for each area, each semester and pregnant students who miss time can see exactly what rotations they need to make up.

Students Who Choose Not to Rotate Through O.R. and Portables during Pregnancy

It is conceivable that the student will be completing extra clinical time, depending on the date of delivery and option chosen. Upon notification in writing of the pregnancy, a schedule will be kept of the missed rotations and all will have to be rescheduled after delivery, which may delay the student's completion of clinical time and delay graduation. The student is encouraged to continue to attend clinic in diagnostic areas but will be completing extra clinical time. Alternatively, the student may stay out of clinic with a physician's note. The student may choose to stay home during their O.R. and fluoro rotations or may perform additional diagnostic time until the last semester of the program and then take the time off from clinic. Missed time from pregnancy-related illnesses and complications (with a physician's note) may be applied to all the extra clinical time required when performing the missed fluoroscopy, mobile and surgical rotations.

Students Who Choose to Continue With the Regular Rotation Schedule during Pregnancy

If the pregnant student chooses to continue with the regular clinical schedule, then the student will not be exercising the option to rotate out of fluoroscopy, portables and surgery. In this case, the schedule outlined in the previous section would not apply. The pregnant student would be expected to follow the regular clinical schedule for each semester.

Missed Clinical Time and Pregnancy

This policy applies to those situations in which a student would miss more than **15%** of the semester due to pregnancy and birth of the child would have to do additional time in order to graduate. This policy affects those students who would be dropped from the program based on the college attendance policy and is separate from the regular Radiography Program attendance policy.

Students who must miss substantial consecutive clinical time will be able to graduate with their class if they elect to follow this policy. These students must complete all clinical rotations, competencies and program requirements in order to graduate.

Students who miss time and wish to extend clinical time beyond the initial intended graduation date are encouraged to do so and do not have to choose this option.

Specific guidelines have been established and will be strictly followed as outlined below.

- Student to staff ratios in the clinical site may be an issue. Students must obtain permission from their clinical instructor to attend clinic on their non-clinic day to ensure the student/staff/instructor ratio will be satisfied.
- The program does not condone students completing over 40 hours per week in school and clinic. If a student chooses to exceed 40 hours, she must sign the release form in the RAD Student Handbook and agree that the additional hours are on a voluntary basis.
- Students missing time for medical reasons must provide a physician's note and their physician's approval for completing additional clinical hours.
- Students cannot make up time when the college is closed.
- Instructors are not dedicated to TCC students on student breaks; therefore, general rotations cannot be scheduled during these times.
- Students must perform all missed ER, Diagnostic, and Fluoro rotations on regularly scheduled clinical days.
- Specialty rotations such as CT, Interventional procedures, and the E/WE rotations can be filled in ahead of time, or on alternate days afterward.
- Students may do their specialty rotations on Thursdays to complete the 5th semester and 6th semester program requirements. Students may do these rotations during semester breaks when the college is open as long as they are registered in a clinical course.
- Students must successfully complete all Clinical Category Competencies and terminal competencies to graduate with their class.
- Each student's situation will be evaluated individually in regard to where they are in the program.
- Freshmen students are more limited in what areas can be made up ahead of time than seniors, but have more time to make up rotations afterwards.
- Delivery date for pregnant students will play a part in rotations missed and schedule adjustments.
- All scheduling will be agreed upon by the clinical coordinator, clinical instructor, and the student.

This policy will apply when it is appropriate and feasible based on program and student constraints. For example, a second or third semester student would have several semesters in which to perform missed rotations, but a sixth semester student would most likely have to postpone graduation until all program requirements are completed. A pregnant freshman student will have less opportunity to make up rotations ahead of time but will have more time after delivery.

Spouse/Partner /Primary Family Member Supportive Maternity Leave Policy

Students will have the option of using clinic time to be home on paternity/maternity leave with their newborn baby. All missed clinic time and rotations must be made up. Also, students who are primary care givers of their pregnant daughters and must be present at the time of delivery will be permitted to miss necessary time needed at the time of delivery. All time missed must be completed in the rotational area that was missed during the family leave time. Depending on the length of time missed, the student may have to take an incomplete or withdraw from classes and graduation may be delayed.



**RADIOGRAPHY PROGRAM
PREGNANCY LIABILITY RELEASE FORM**

I am voluntarily declaring my pregnancy. I am aware of the potential risk involved in radiation exposure to an unborn fetus. Nonetheless, I wish to continue in the Tidewater Community College Radiography Program. I understand that in doing so no one can assure me that the fetus will not be harmed by radiation exposure.

I believe I became pregnant in _____ (month/year). I represent to the college that I have sought medical advice and that my physician has approved continuation in this program. I understand the radiation dose to my embryo/fetus during my entire pregnancy will not be allowed to exceed 5 mSv.

In consideration of being allowed to continue, I hereby release and promise not to sue the Commonwealth of Virginia, State Board for Community Colleges, Tidewater Community College, its faculty, staff, and affiliated hospitals for any injury or death to my unborn fetus caused by radiation exposure; no matter the cause unless due to the intentional misconduct of any of the said parties.

The pregnancy release is given in my behalf and on behalf of my unborn fetus. I represent that I am eighteen years old or older. I understand that before signing this release I should consult with a lawyer, parent or advisor of my choice.

I understand that I am under no obligation; however, I may voluntarily choose to notify the Radiography Program if my pregnancy status should change and I no longer require monthly fetal dosimeter monitoring services.

Student Name

Student Signature

Program Official

Program Official Signature

Witnessed By (Print)

Signature

Date

TCC Radiography Program

Pregnancy Rotation Record

Student: _____

Date pregnancy reported: _____ Projected due date: _____

Rotation		Number of Days Missed		Rotation	Completion (Date)
Semester	OR/Port	Fluoro	OR/Port	Fluoro	
2	-----	-----	-----	-----	-----
3	-----	-----	-----	-----	-----
4	-----	-----	-----	-----	-----
5	-----	-----	-----	-----	-----
6	-----	-----	-----	-----	-----

Appendix C

Rules of Conduct

All program students will adhere to established policies and rules. Infractions/violations will result in either oral or written warnings or immediate withdrawal as published. This list is not exhaustive, and students may earn an infraction not listed.

Oral Warning Infractions/Violations

Infractions/violations of the following policies will result in the issuance of an **oral warning** with **1 point** deducted from the final clinic grade:

- Sleeping on clinical assignment (CIs have the right to send student home if caught sleeping)
- Except for a surgical rotation, fail to report to the hospital in the proper and specified uniform
- Fail to report to clinic or call the instructor by 8:00 A.M. (Day shift) and by 30 minutes after the start of the Evenings/Weekends shift
- Eat in areas not specifically designated for that purpose (OSHA regulation)
- Leave **assigned area** or department without permission from a radiographer, supervisor, or clinical instructor
- Gum chewing while delivering direct patient care (**Second Offense**)
- Inappropriate **Cell Phone Use**
- Profanity in the clinical setting
- Accept any type of gratuity or tip from a patient or a patient's family
- Fail to question and document per department protocol pregnancy status and date of the LMP of all female patients between the age of **10 yrs. and 60 yrs.**
- Arrive at clinic without the dosimeter or failure to keep dosimeters at clinical site except for TCC Lab or specialty rotations
- Performing fluoro or surgical/mobile procedures without wearing a dosimeter
- Arrive at clinic without the TCC Student ID badge or markers.
- Arrive tardy to clinic a fourth time in a clinical year
- Change the initial agreed upon evening/weekend rotation schedule **more than one time**
- Refuse to perform an exam or a competency in the 6th semester
- Documented clinical, technical, or affective domain deficiencies
- Improper hookup of a patient's oxygen
- Processing an exam/procedure under the wrong projection or accession number
- Incorrect patient ID
- Mismarking an image (uses incorrect marker) when performing radiographic procedures and submits images to PACS
- Fail to report to the hospital in an alert condition (**second offense**)
- Loses dosimeter or fails to pick up or return dosimeter by due date
- Student completes an expired immunization but fails to provide documentation to clinical coordinator.

Immediate Written Warning Infractions/Violations:

Infractions/violations of the following policies will result in the issuance of an **immediate written warning** with **2 points** deducted from the final clinic grade:

- For receiving **four** separate oral warnings for various violations
- Exhibit abusive or disrespectful behavior in the clinical setting
- Repeat a radiographic image without the direct supervision of a registered technologist or clinical instructor
- Release a patient from the radiology department without clearance or direction from a technologist, floor supervisor or instructor

- X-ray the wrong patient
- Neglects or fails to identify the patient or check the patient's ID
- Releasing the wrong images to PACS
- Perform the incorrect exam/protocol and not properly checking and interpreting the patient requisition and physician's orders (example: x-ray the wrong extremity or not completing all positions per protocol)
- Processing radiographic procedures under the wrong projection and accession number using (assign the wrong exam and accession number to multiple CR cassettes or DR images) and release/submit to PACS
- Submit or release images to PACS without having them checked and approved by a technologist, floor supervisor, instructor or radiologist
- Cause a patient unusual physical or mental discomfort that could be prevented by technical skill, attentiveness and empathetic understanding
- Unintentional radiation exposure
- Unprofessional or immoral conduct
- Refuse to accept assignments if capable of performing/ assisting with the exam and if supervision is available
- Leave the clinical site without permission from the clinical instructor or supervisor
- Leave patients unattended
- Changing or adjusting a patient's rate of oxygen without **direct supervision**
- Smoke in any prohibited area
- Documented clinical, technical, or affective domain deficiencies that continues on the subsequent semester despite remediation
- Student fails to complete/start immunizations by deadline.

Probation:

Infractions/violations of the following polices will result in **Probation** with **5 points** deducted from the final clinic grade. Two written warnings lead to probation.

- **Blatant/Intentional Falsification of Time Clock** - A student who signs in at 7:30 am or out at 4:00 pm but arrives late to or leaves early from clinic and/or has another student sign in and/or out for him/her will be placed on **clinical probation** for the **first offense**. The **second offense** may be grounds for **dismissal** from the TCC RAD Program
- Documented clinical, technical, or affective domain deficiencies that continue on the subsequent semester final semester evaluation despite continued remediation. If lack of progress continues, **withdrawal** from the Program will result with the next substandard clinical evaluation

Immediate Withdrawal

- Disrespect to a patient may be grounds for immediate dismissal from the program
- As a student, in possession of illicit/illegal drugs, liquor, weapons or firearms or engaging in their use while on the hospital premises. Using prescribed opioid drugs while caring for patients is prohibited per the functional state policy and is grounds for program dismissal.
- The program director reserves the right to terminate a student's enrollment at any time because of unsatisfactory work, poor or substandard clinical performance, attendance or conduct, in accordance with the program rules and regulations

Depending upon the severity, frequency, and circumstances of the matter, in the opinion of the clinical coordinator and program director, the student may:

- ❖ **Receive a direct written documentation without a verbal warning being issued**

❖ **Be placed directly on clinical probation without any previous written documentation form**

Conduct unbecoming to a professional radiographer will not be tolerated. Abuse of the standards may be grounds for dismissal. All students must be aware of the increased amount of responsibility regarding personal and professional conduct as a member of the health care team. Each is expected to maintain the ethical standards of the medical community, as well as any additional standards set by the program.

Each student must realize that he or she represents the medical profession, the sponsoring institution; Tidewater Community College, and the hospital affiliate. Whether in the classroom, hospital, or professional meeting, each must continue to practice professionalism. Please remember that one's behavior as an individual or a member of a group is representative of one's ethical standards.

Appendix D

Clinical Affiliate Policies and Procedures

Chesapeake Regional Medical Center

I. GENERAL POLICY

Tidewater Community College radiography program students will be permitted to perform certain Radiologic examinations and computerized procedures subject to the following guidelines. Students are not allowed to perform any exams unsupervised. Direct and Indirect supervision policies are described below.

A. Direct Supervision

1. A registered radiographer reviews the request for examination in relation to the student's achievement.
2. A registered radiographer evaluates the condition of the patient in relation to the student's level of knowledge.
3. A registered radiographer is present during the conduct for the examination.
4. A registered radiographer reviews and approves the images.
5. In support of professional responsibility for provision of quality patient care and radiation protection, unsatisfactory images shall be repeated **only** in the presence of a registered radiographer, regardless of the student's level of competency.

B. Indirect Supervision

1. Indirect supervision is defined as supervision provided by a registered technologist immediately available to assist students regardless of the level of a student's achievement.
2. "Immediately available" is interpreted as the presence of a registered technologist adjacent to the room or location where a radiographic procedure/exam is being performed.
3. This availability applies to all areas where ionizing radiation equipment is in use.
4. After demonstrating competency, students may perform certain procedures/exams with indirect supervision, in the presence of a registered technologist.

II. Procedures

A. Portable

1. Students who have not achieved a competency for portables may NOT do portables without Direct Supervision by a registered technologist.
2. Students who have achieved a competency for portables may do portables with Indirect Supervision by a registered technologist, with the EXCEPTION OF nursery, ICU, SAU, PACU and STAT portable exams. ALL nursery, ICU, SAU, PACU and STAT portable exams must be performed under the Direct Supervision of a registered technologist.

B. Routine, Fluoroscopic, and Emergency Exams

1. Until a student has achieved a competency for the specific exams being performed, it must be performed under the Direct supervision of a registered technologist.
2. Any exam for which a student has achieved a competency may be performed with Indirect supervision.
3. ALL TRAUMA RADIOGRAPHY for STUDENTS must be performed under the Direct supervision of a registered technologist until competency has been achieved.
4. ALL TRAUMA CROSS TABLE LATERAL CERVICAL SPINE EXAMS must be done under Direct supervision of a registered technologist. Once image has been reviewed by a Radiologist/ER

physician and no obvious severe trauma has been noted, student should proceed with Direct supervision to complete the exam.

C. Surgery

1. Students will be allowed to perform Surgery procedures under Direct supervision of a registered technologist.
2. After achieving a competency exam for a surgical procedure, students will be allowed to perform a surgical exam under Indirect supervision only in the presence of a registered technologist immediately available to assist students.

D. Repeat exam policy

Students must have Direct supervision for any radiographic images that must be repeated. This applies to all students regardless of level of achievement. Violations will result in documented disciplinary action.

E. Copies for scientific papers, etc.

1. Students may make copies of images for scientific papers, subject to approval of clinical instructor and department supervisor.
2. Students are reminded of patient confidentiality when making copies. No patient identification may be visible on any copies. Copies are to be used in professional education situations and not for personal use.

Maryview Medical Center

I. GENERAL POLICY

Tidewater Community College radiology students will be permitted to perform certain Radiologic examinations and/or computerized procedures subject to the following guideline:

II. PROCEDURES

A. Portable

1. Students may not do routine portable procedures unless under the direct supervision of a registered technologist

B. Surgery

1. Students may not do surgery procedures on their own. A registered technologist must be present at all times.

C. Routine and Fluoroscopic

1. All students must have **direct supervision** until a competency has been achieved in all procedures.
2. All students are on **indirect supervision** when a competency has been achieved in all procedures.

D. Repeat

1. Students must be directly supervised for any procedure that must be repeated.

E. Copying images for scientific papers, etc.

1. Students may make copies of images for scientific papers subject to approval of their clinical instructor and a department supervisor.

F. Trauma Cervical Spine Procedure

1. All students must be under direct supervision when performing a cross-table lateral trauma cervical spine.
2. Once the cross-table has been checked by the radiologist, students should proceed with **direct supervision** until a competency has been achieved and with **indirect supervision** once a competency has been attained.

Sentara Norfolk General Hospital

SENTARA HEALTHCARE X SNGH

Category: Education and communication

Specialty/Area: Radiology

Subject: TCC Radiography Program

Original Date: May 1999

Revised Date:

Reviewed Date: 2010

Approval

Policy standardization forum

POLICY:

Tidewater Community College radiography program students will be permitted to perform certain Radiologic examinations and procedures.

DEFINITIONS:

Direct supervision terms described below are in accordance with Joint Review Commission in Radiologic Technology.

A. Direct Supervision:

1. A qualified radiographer reviews the request for examination in relation to the student's achievement.
2. A qualified radiographer evaluates the condition of the patient in relation to the student's knowledge.
3. A qualified radiographer is present during the conduct of the examination.
4. A qualified radiographer reviews and approves the radiographic images.
5. In support of professional responsibility for provision of quality patient care and radiation protection, unsatisfactory radiographic images shall be repeated only in the presence of a qualified radiographer, regardless of the student's level of competency

PROCEDURES:

A. Portable

1. Portables are to be done on direct supervision regardless of competency level.

B. Surgery

1. All surgical procedures must be performed under direct supervision of a registered radiographer.

Sentara Princess Anne and Sentara Leigh Hospital

SENTARA HEALTHCARE X SPAH X SLH

Category: Education and communication

Specialty/Area: Radiology

Subject: TCC Radiography Program

Original Date: May 1999

Revised Date:

Reviewed Date: 2010

Approval

Policy standardization forum

POLICY:

Tidewater Community College radiography program students will be permitted to perform certain Radiologic examinations and procedures.

DEFINITIONS:

Direct and Indirect supervision terms described below are in accordance with Joint Review Commission in Radiologic Technology.

A. Direct Supervision:

Until a student achieves and documents competency in any given procedure, all clinical assignments shall be carried out under the direct supervision of qualified radiographers. The parameters of direct supervision are:

6. A qualified radiographer reviews the request for examination in relation to the student's achievement.
7. A qualified radiographer evaluates the condition of the patient in relation to the student's knowledge.
8. A qualified radiographer is present during the conduct of the examination.
9. A qualified radiographer reviews and approves the radiographic images.
10. In support of professional responsibility for provision of quality patient care and radiation protection, unsatisfactory radiographic images shall be repeated only in the presence of a qualified radiographer, regardless of the student's level of competency.

B. Indirect Supervision:

After demonstrating competency, students may perform procedures with indirect supervision.

Indirect supervision is defined as that supervision provided by a qualified radiographer immediately available to assist students regardless of the level of student achievement.

"Immediately available" is interpreted as the presence of a registered 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.

PROCEDURES:

A. Portable

1. Portables are to be done on direct supervision regardless of competency level.

B. Surgery

1. All surgical procedures must be performed under direct supervision of a registered radiographer.

C. Routine, Fluoroscopic, and emergency Radiography

1. Until a student has achieved a competency for the specific exam being performed, it must be performed with direct supervision of a registered radiographer.
2. Any exam for which the student has achieved a competency may be performed with indirect supervision provided a registered radiographer is immediately available to assist students.
3. It is at the discretion of the clinical instructor to require direct supervision, at any time for any exam, if he/she/ feels the student demonstrates a lack of competency to sufficiently meet the needs of the institution, radiologist, or patient expectations. In the absence of a clinical instructor, the supervisor on duty would make that decision.

PROGRAM'S REPEAT RADIOGRAPH POLICY:

Students must have direct supervision for any radiographic images that must be repeated. This applies to students who have performed competencies on procedures/exams. Violations will result in documented disciplinary action.

THIS IS A PATIENT SAFETY ISSUE!!!! TRAUMA CENTER RADIOGRAPHY:

- A. Being a level I trauma Center, the student will actively participate in all types of trauma radiography.
- B. All trauma radiography must be performed under the direct supervision of a registered radiographer. This applies to exams performed in the trauma bay during the initial alert and any follow up radiographic images performed in the department immediately following the alert.

Sentara Mandatory Orientation Training Modules

Orientation Training Modules must be completed annually by all 2nd & 5th semester students prior to the start of fall semester. All students will be introduced to the modules and provided written instructions to follow to complete the modules at the beginning of the summer semester. Students will go to <http://www.sentara.com/Employment/Pages/RequiredCourses.aspx>. The list of **Required Courses** will be displayed on the computer screen. Students should click on each required topic, view the tutorials, and complete all of the tests identified as **All staff that work in any hospital** and **Hospital Patient Care Staff Non-RN/LPN**. Students will have all summer semester to complete the modules. An **oral warning** will be issued to any student who does not complete the training & turn in completed test sheets to instructors by the specified dates at the beginning of the fall semester.

RED RULES FOR SAFETY

At Sentara Norfolk General Hospital

Employee/Student Statement of Red Rules Commitment

The Safety of our patients, visitors, employees and students is our priority at Sentara. We designate as Red Rules, those actions that have the highest consequences or risk, if not performed consistently and exactly. Red Rules accomplish three things:

- √ Focus employees on those department rules that are most important to safety.
- √ Clarify work/performance expectations about processes critical to safety.
- √ Aid us in making our hospital a safer place.

By complying with Red Rules, I make a conscious decision to help ensure the safety of our patients, students, and employees, and I am helping to create a culture of safety at Sentara.

2010 Red Rules – Radiology

- √ **Patient Identification** – Verify & match using at least 2 identifiers before acting.
- √ **Site Verification** - Performed prior to procedure.
- √ **Order and Physician Verification** - Performed prior to procedure.
- √ **Procedure Table Belts, Safety Straps** – Use when patient is left unattended on an x-ray table or stretcher.

My Personal Commitment to Department Red Rules

1. I shall know my department Red Rules.
2. I shall clearly understand the procedures that support the Red Rules.
3. I shall comply exactly and at all times with my department Red Rules.
4. If compliance with a Red Rules is not possible, I shall STOP action until any uncertainty can be resolved.

I understand that compliance problems with Red Rules shall be managed in accordance with the Sentara Code of Conduct policy. No less than a written warning shall be given for Red Rule noncompliance by a Sentara Employee.

I HAVE BEEN ADVISED AND UNDERSTAND THAT MY COMPLIANCE WITH SENTARA'S RED RULES IS CRITICAL. IF MY NON-COMPLIANCE, AS A STUDENT, TO A RED RULE RESULTS IN A CODE OF CONDUCT FOR MY SUPERVISING TECHNOLOGIST (Direct Supervision Technologist), I WILL RECEIVE A WRITTEN WARNING FOR MY NON-COMPLIANCE.

Student Name (Print): _____

Student Signature: _____ Date: _____

Clinical Instructor Name (Print): _____

Clinical Instructor Signature: _____ Date: _____

This original copy will be placed in the student's permanent file and the student will receive a copy of the signed form.

**SENTARA PRINCESS ANNE AND NORFOLK GENERAL HOSPITAL
PATIENT IDENTIFICATION PROTOCOL FOR
TIDEWATER COMMUNITY COLLEGE STUDENTS**

For all patient interaction, you should start your conversation with the patient in a manner similar to: **Hello, my name is _____. I will be doing your x-rays today. I am a student and this is _____, the technologist who will be supervising me.**

ALL PATIENTS MUST HAVE AN ID BAND PRIOR TO COMING TO RADIOLOGY. IF YOUR PATIENT DOES NOT HAVE AN ID BAND, NOTIFY YOUR SUPERVISING TECHNOLOGIST SO THE PROBLEM CAN BE RECTIFIED.

All patient ID bands will have the following information included:

1. Patient Name
2. Patient date of Birth
3. Patient Account Number (8 digit number located directly under the patient's name on requisition)

1. **FOR THE NON-RESPONSIVE PATIENT OR PATIENT WITH TRAUMA ID (NO NAME, SOC., SEC., NUMBER OR D.O.B.)**

To properly ID such patients match the identification information on the requisition with the Patient ID Band.

2. **FOR THE PATIENT WHO IS RESPONSIVE AND ABLE TO VERBALIZE**

To properly ID such patients, call the person by name or ask his/her name. (Example: Mr. Parker, MS. Alston, etc). Once in appropriate privacy, ask the patient to verify his/her name, stating the full FIRST name, Middle Initial if any, and full LAST name, Patient Account Number, and date of birth (DOB).

Although the Red Rules only require 2 forms of ID, this 3-identifier method will ensure that all information is accurate. If there is a question about the spelling of the name, ask the patient to verify the spelling. If there is a discrepancy in ANY of the ID information, notify your supervising technologist prior to the start of the exam.

Approximately 75% of the exams you do will be on patients who can verbalize the above information.

3. **FOR THE RESPONSIVE PATIENT WHO IS ABLE TO VERBALIZE BUT DOES NOT VERIFY ANY IDENTIFICATION IN A COHERENT MANNER**

To properly ID this type of patient once ALL ATTEMPTS HAVE BEEN MADE TO VERBALLY VERIFY THE ID, you must resort to using the Patient ID Band as your source of ID.

4. **FOR PEDIATRIC PATIENTS**

To properly ID this type of patient, VERIFY the ID with the ID Band and then VERBALLY VERIFY the same information with the Parent or Guardian, when available. If the child is old enough and responsive enough to provide verbal verification, do so as described above with name, DOB, and patient account #.

5. The Patient ID Band should be your **LAST** resort for ID since it can easily be incorrect. When the band alone is used, you are assuming that the information is accurate. Remember, the information is entered by a human being and humans make mistakes. The ID Band and requisition may match with patient Mary Smith but when you verify the ID verbally with the other patient information, you may find that this patient and the ID information **DO NOT MATCH**.

6. If at any time during the ID process, you find information to be INACCURATE, report the error to your supervising technologist PRIOR TO starting the exam. He or she will handle the situation from there.

7. **All patient ID (verbal Social Security Verification, verbal DOB Verification, etc.) should be done in appropriate privacy to meet HIPAA standards. (Heath Insurance Portability and Privacy Act). HIPAA standards are intended to ensure confidentiality of all patient information.**

8. By having the patient verbally state his/her full name, as described above, there should be no question what is the first name and last name, as with names like Dexter David or David Dexter. This may sometimes become confused in registration.

9. **Patient ID verification must be completed PRIOR TO giving dressing instructions, ascertaining clinical history, etc. WHY ask such questions or dress a patient for an exam when you have NOT verified ID to know you even have the correct patient?**

I, _____, (print your name), have read the SPAH / SNGH /TCC Student Patient Identification Protocol information. I have read and fully understand the proper methods for identification. I take full responsibility for my actions and any consequences that may occur if I do not adhere to this protocol. I verify that I have been given a copy of this protocol for my records. I verify that I understand that NO OTHER methods of ID will be considered valid and grade reductions or other consequences (Red Rule Violations) will result if I do not adhere to the protocol as described above.

Signature: _____ Date: _____

Note: If this ID protocol changes due to changes in identifiers used by Sentara, the protocol will be updated.

Joint Commission 2010 National Patient Safety Goals

Sentara Virginia Beach General Hospital

TCC RADIOGRAPHY PROGRAM SENTARA VIRGINIA BEACH GENERAL HOSPITAL

I. GENERAL POLICY

Tidewater Community College radiography program students will be permitted to perform certain Radiologic examinations and computerized procedures subject to the following guidelines. Students are not allowed to perform any exams unsupervised. Direct and indirect supervision policies are described below.

II. PROCEDURES

A. Portable

1. Students who have not achieved a competency for portables may NOT do portables without **direct supervision** by a registered technologist.
2. Students who have achieved a competency for portables may do portables with **indirect supervision** by a registered technologist. **Indirect supervision** means a registered technologist must be readily available at all times.

B. Surgery

1. Students are NOT allowed to do any surgical procedures without **direct supervision** of a registered technologist.

C. Routine, Fluoroscopic, and Emergency Radiography

1. Until a student has achieved a competency for the specific exam being performed, it must be performed under the **direct supervision** of a registered technologist.
2. Any exam for which the student has achieved a competency may be performed with **indirect supervision**. Indirect supervision means a registered technologist must be readily available at all times.
3. ALL TRAUMA ALPHA, BRAVO, & DELTA RADIOGRAPHY for STUDENTS must be performed under the **direct supervision** of a registered technologist.

D. Repeats

1. Students must be under the **direct supervision** of a registered technologist for any exposure that must be repeated.

E. Copies for scientific papers, etc.

1. Students may make copies of images for scientific papers, subject to approval of their clinical instructor and a department supervisor.
2. Students are reminded of patient confidentiality when making copies. No patient identification may be visible on the copies. Copies are to be used in professional educational situations only and not for personal use.

Sentara CarePlex Hospital

I. GENERAL POLICY

Tidewater Community College radiography program students will be permitted to perform certain radiologic examinations and computerized procedures subject to the following guidelines. Students are not allowed to perform any exams unsupervised. Direct and indirect supervision policies are described below.

II. PROCEDURES

A. Portable

1. Students who have not achieved a competency for portables may NOT do portables without **direct supervision** by a registered technologist.
2. Students who have achieved a competency for portables may do portables with **indirect supervision** by a registered technologist, with the EXCEPTION OF nursery and ICU portables. **Indirect supervision** means a registered technologist must be readily available at all times. ALL nursery and ICU exams must be performed under the **direct supervision** of a registered technologist.

B. Surgery

1. Students are NOT allowed to do any surgical procedures without **direct supervision** of a registered technologist.

C. Routine, Fluoroscopic, and Emergency Radiography

1. Until a student has achieved a competency for the specific exam being performed, it must be performed under the **direct supervision** of a registered technologist.
2. Any exam for which the student has achieved a competency may be performed with **indirect supervision**. Indirect supervision means a registered technologist must be readily available at all times.
3. ALL TRAUMA RADIOGRAPHY for STUDENTS must be performed under the **direct supervision** of a registered technologist until a competency has been achieved.
4. 4. STUDENTS may perform TRAUMA RADIOGRAPHY with **indirect supervision** if a competency has been achieved for the specific exam being performed. **Indirect supervision** means a registered technologist must be readily available at all times. Non- competency exams must be performed under the **direct supervision** of a registered staff technologist.

D. Repeats

1. Students must be under the **direct supervision** of a registered technologist for any exposure that must be repeated.

E. Copies for scientific papers, etc.

1. Students may make copies of images for scientific papers, subject to approval of their clinical instructor and a department supervisor.
2. Students are reminded of patient confidentiality when making copies. No patient identification may be visible on the copies. Copies are to be used in professional educational situations only and not for personal use.

Appendix E

Oral, Written and Probation Forms, Misc TCC RAD Forms



TIDEWATER COMMUNITY COLLEGE
From here, go anywhere.™

Student Oral Documentation Form

I, _____, understand that this form will serve as formal verbal documentation of non-compliance with the rules of conduct as stated in the Tidewater Community College Radiography Program Student Handbook. I also understand that the next infraction of the same rule or policy will result in a formal written documentation form. Oral warnings carry a 1 point grade reduction, do not expire and can result in a written warning at any time during the student's training. Four oral warnings will result in a written warning for the violation of any rule or policy.

Date Student Signature

Date Clinical Instructor Signature

Date Other Signature

Description of Infraction: _____

Student's Comments: _____



TIDEWATER COMMUNITY COLLEGE
From here, go anywhere.SM

Student Written Documentation Form

I, _____, understand that this form will serve as formal written documentation of non-compliance with the rules of conduct as stated in the Tidewater Community College Radiography Program Student Handbook. I also understand that issuance of two (2) written documentation forms during any one (1) semester and at any time during my clinical training will result in clinical probation. I also understand that **2 points** will be deducted from my final clinical grade for receiving a written warning. Written warnings do not expire and can carry over into the next semester and stand as a written warning throughout the student's training.

Date Student Signature

Date Clinical Instructor Signature

Date Other Signature

Description of Infraction: _____

Student's Comments: _____



TIDEWATER COMMUNITY COLLEGE
From here, go anywhere.SM

Clinical Probation

Affiliate: _____ Date: _____

Please attach first and second written warnings.

I, _____, understand that for the above stated reason I have been placed on probation for the remainder of the program. I also understand that I will be dismissed from the program if I receive a written warning for violation of the same infraction or another infraction within this probationary period. I am aware that if I am placed on probation for a second time, this will result in dismissal from the program. I also understand that if I am placed on probation, **5 points** will be deducted from my final clinical grade. I am aware that I may withdraw from the Program by the College's published withdrawal date for each semester to avoid academic penalty. After the deadline date for withdrawal to avoid academic penalty, if I am withdrawn from the Program due to clinical probation, poor clinical performance, issues or problems, I will receive a **grade of F**.

Student Signature

Clinical Instructor's Signature

Clinical Coordinator's Signature

Pediatric Performance Chart



TIDEWATER COMMUNITY COLLEGE

From here, go anywhere.™

Pediatric Performance Chart

Students rotating through CHKD should attempt to **perform** and document the **8** exams on this form and bring it back to the clinical instructor at the primary clinical site. Those who complete the form and critiques will receive credit for one pediatric elective competency.

Student: _____ Semester: _____

	Exam	Date:	Tech Sign Off
	Chest Under 2 years		
Perform			
Perform			
	Chest 2-6 years		
Perform			
	Upper Extremity-List Exam		
Perform			
	Lower Extremity-List Exam		
Perform			
	Abdomen		
Perform			
	Mobile/Portable		
Perform			
	Contrast Study-List Exam		
Perform			

Diagnostic History Form

Patient Name: _____

Date: _____

Barium Enema:

- Has the patient been NPO since midnight? Bowel Prep? Yes No
- History of nausea or vomiting? Yes No
- History of abdomen pain? RUQ LUQ RLQ LLQ Yes No
- History of Crohn's Disease? Yes No
- History of change of bowel habits? Diarrhea? Constipation? Yes No
- History of blood in stool? Dark and tarry stools? Bright red stools? Yes No
- History of diverticulum? Yes No
- History of polyps? Removed when? _____ Yes No
- History of hemorrhoids? Hemorrhoidectomy? Yes No
- History of cancer? Stomach, colon, rectal, prostate, ovarian, uterine Yes No
- History of radiation treatment or chemotherapy? Date _____ Yes No
- History of fevers or chills? Yes No
- History of abnormal bloating? Yes No
- History of recently scoped? Sigmoidoscopy, Colonoscopy, Gastroscopy Yes No
- History of abdominal surgery? Appendectomy? Yes No

UGI:

- Has the patient been NPO since midnight? Prep? Yes No
- History of reflux? Belching? Yes No
- History of heartburn or indigestion? Yes No
- History of hiatal hernia? Yes No
- History of stomach ulcer? PUD, duodenal ulcers? Yes No
- History of nausea or vomiting? Yes No
- History of chest pain? Yes No
- History of abdomen pain? RUQ, RLQ, LUQ, LLQ Yes No
- History of Crohn's disease? Yes No
- History of blood in stool? Dark and tarry stools, bright red stools Yes No
- History of cancer? Stomach, colon, rectal, prostate, ovarian, uterine Yes No
- History of abnormal weight loss? Yes No
- History of gastric surgery? Yes No

Small Bowel:

- Has the patient been NPO since midnight? Prep? Yes No
- History of stomach ulcer? PUD, duodenal ulcers? Yes No
- History of nausea or vomiting? Yes No
- History of abdomen pain? RUQ, LUQ, RLQ, LLQ Yes No
- History of Crohn's disease: Yes No
- History of change of bowel habits? Diarrhea, Constipation Yes No
- History of blood in stool? Dark and tarry stool, bright red stool Yes No _____ History of
- diverticulum? Yes No _____ History of
- Cancer? Stomach, colon, prostate, rectal, ovarian, uterine Yes No
- History of abnormal weight loss? Yes No
- History of abdominal bloating? Yes No
- History of gastric or SB surgery? Yes No

Barium Swallow (Esophagus):

- Has the patient been NPO since midnight? Prep? Yes No
- History of Dysphasia? Lower or upper esophagus, solid food or liquids Yes No
- History of reflux? Belching? Yes No
- History of heartburn or indigestion? Yes No
- History of hiatal hernia? Yes No
- History of stomach ulcer? PUD, duodenal ulcers Yes No
- History of nausea or vomiting? Yes No
- History of chest pain? Yes No
- History of Cancer? Stomach, colon, rectal, prostate, ovarian, uterine Yes No
- History of radiation treatment or chemotherapy? Yes No
- History of abnormal weight loss? Yes No
- History of esophageal or gastric surgery? Yes No

Modified Barium Swallow:

- History of Dysphasia: Lower or upper esophagus, solid foods or liquids? Yes No

IVP:

- Has the patient been NPO since midnight? Prep? Yes No
- History of abdomen pain? RUQ, LUQ, RLQ, LLQ Yes No
- History of back pain? Right flank pain, Left flank pain? Yes No
- History of Cancer? Stomach, colon, prostate, rectal, ovarian, uterine Yes No
- History of radiation treatment or chemotherapy? Yes No
- History of fevers or chills? Yes No
- History of hypertension? Yes No
- History of diabetes? Insulin dependent, diet controlled Yes No
- Are you taking Glucophage or Glucovance? Yes No
- History of kidney stones? Yes No
- History of blood in urine? Yes No
- History of kidney disease? Bladder disease? Yes No
- History of contrast reactions? Mild Moderate Severe Yes No
- History of poor Renal function or disease? Yes No
- Daily medications? Yes No
- History of urinary tract (kidneys, ureters, bladder) surgery? Yes No
- History of prostate surgery? Yes No

Lab Results:

Date of lab results? _____
BUN: _____
Creatinine: _____

*If NPO & diabetic make sure patient did not take insulin (UGI, SBS, BE, & IVU).

RADIOLOGIST: _____

COMPLETED BY: _____



TIDEWATER COMMUNITY COLLEGE

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Radiography Program

Staff Evaluation of Student Form

Student Name: _____

Date: _____

Clinical Area: _____

Please indicate areas in which the student is doing well and identify areas which need improvement. Please return the completed evaluation form to the clinical instructor with **a minimum of 3 constructive comments** in each section.

Student's Strengths:

1. _____
2. _____
3. _____
4. _____

Areas of suggested improvement:

1. _____
2. _____
3. _____
4. _____

Student's Accomplishments during this rotation:

1. _____
2. _____
3. _____
4. _____

Staff Technologist (Please Print): _____

Staff Technologist Signature: _____

Student Signature: _____

1. Locate and has knowledge of location of equipment in the O.R.
2. Restock C-arm with necessary supplies (equipment and aprons) and check aprons and C-arm after each procedure for cleanliness.
3. Change plastic trash bad on C-arm tube as needed.
4. Under direct supervision, demonstrate the ability to drive the C-arm and portable units safely and properly. Practice driving C-arm unit (Second semester only).
5. If applicable, turn O.R. processor on and off properly.
6. Monitors and observes O.R. cases.
7. Follows department protocol for exams and procedures. Aware of sterile field in O.R. (Second Semester). Practices good sterile technique (starting third Semester).
8. Ease in using and manipulating portable and C-arm equipment devices and control panel, under direct supervision, demonstrating all locks (starting Third Semester).
9. Evaluate requisition accurately, verifying patient and exam to be done.
10. On portables, explain the procedure to the patient before setting up the equipment.
11. Consult nurse concerning treatment of patient, if indicated.
12. Use of proper body mechanics. Proper handling of patient. Obtain help, if needed, to move and lift the patient.
13. Practice medical asepsis by keeping the portable and image receptors clean.
14. If applicable, process radiographs or images, obtain wet readings and complete workflow according to department protocol.
15. Correctly annotate and identify computer images/radiographs, noting time, position, and technique.
16. Under direct supervision, selects appropriate technical factors on machine for exams (portables and cystograms).
17. Under direct supervision, demonstrates accurate positioning and produces good quality radiographs / computer images (portables and cystograms).
18. Use of correct markers (portables and cystograms).
19. Image evaluation/critique ability to evaluate radiographic quality accurately (Second Semester student excluded).
20. Practices good radiation protection for self, patient, and co-workers.
21. Show empathy, care and concern for patient.

22. Good comprehension and memory. Follows instructions well.
23. Well organized. Manages time effectively. Highly productive.
24. Good judgment in handling situations effectively and appropriately.
25. Conducts self in professional manner with both the patient and the staff.
26. Punctual and dependable. In assigned area and doesn't linger outside room.
27. Team-player, cooperates in an agreeable manner.
28. Takes directions well. Doesn't question authority.
29. Benefits from criticism. Learns from mistakes.
30. Receptive to suggestions. Willingness to learn.
31. Has insight regarding professional limitations. Asks for help when needed.
32. Reacts calmly to emergency and stressful situations.
33. Does assigned clinical tasks and seeks additional unsolicited clinical tasks.
34. Performs tasks independently. Requires minimal intervention (Second semester student excluded).
35. Reflects self-confidence. Enthusiastic about work. Eager to learn more.
36. Motivation and initiative in starting and completing tasks.
37. Personal and professional appearance.

Health Professions Readmission Policy

Students receiving a grade below "C" in any of the required course work may be dismissed from the Program. If the student wishes to re-enter the program the following year, they must complete the following requirements to be considered for readmission:

1. Submit an Application for Readmission into the Health Professions Program at least one semester prior to the beginning of the semester in which they desire to re-enter the program.
2. Complete Part IV of the application for Readmission explaining how they have resolved those problems which led to the academic or clinical difficulty.
3. Re-enroll in and successfully complete (with a grade of "C" or better) the academic course(s) which led to dismissal from the Program.
4. Complete the admissions process, including a personal interview with the Program Director, submission of another Physical Examination and a current CPR certification and TB Test (if required).
5. Students must satisfactorily complete challenge tests to demonstrate continued knowledge and skill of the subject matter at the required level. Students must pass all challenge tests with a minimum of an 80% in order to be re-admitted.

Since situations for dismissal and re-entry may differ, it is up to the discretion of the Program Director to set the specific criteria for each student's re-admission. The re-entering student will be required to demonstrate satisfactory knowledge and skills on written and/or practical examinations to be allowed to re-enter the program at the point at which the student was dismissed from the program.

In addition, any student who voluntarily "stops-out" of the program for one year, will be required to audit clinical the semester before they wish to re-enter the program. During this audit period, the student will refresh their clinical skills to prepare for re-entry. It is strongly recommended that the student resume the curriculum sequence the year after voluntary withdrawal. Longer periods out of the program will require re-enrollment from the beginning.

In the case of prior clinical probation which resulted in the withdrawal of the student from the Program, depending on the reason (s) and the impact on patient safety, student's re-entry into the program may be denied. If the reason for the withdrawal did not impact patient safety, the student will be permitted to audit the program and will be evaluated during the audit period to ensure that previous clinical problems or infractions have been resolved. If it is found that the same clinical problems or infractions exist, re-entry into the program will be denied.

After an academic dismissal, a student who re-enters the program and receives a grade lower than a "C" in any of the required course work will be dismissed. In this case, re-admission will not be granted again. In this case, the student must re-apply to the program as a new applicant and if accepted, must enroll in the program course work from the beginning of the curriculum sequence.

A student re-enrolling in the program for a second time, after voluntary withdrawal, must retake all the curriculum-specific courses, regardless of prior grades received.

Any student with two academic dismissals will not be considered for re-entry as a new or returning student.

Depending on the severity of the infraction and the impact on patient care and safety, student's involuntary dismissal from the program due to clinical probation, poor clinical performance, issues and problems may not be considered for re-entry as a new or returning student.

Re-admission to the program is dependent upon the availability of positions. There are no guarantees for re-admission due to limited clinical and lab space.

All students applying for re-admission for the first or second semesters of the program will be compared to new applicants in terms of the admission points required for acceptance. If there are higher qualified new applicants, they may be accepted before the re-applicant. This is to ensure the highest quality academically prepared class for successful completion of the program and preparation for the Registry exam.

Please see the Program Director for necessary forms and application deadlines

CastleBranch

Order Instructions for: **Tidewater Community College - Radiology**

1. Go to castlebranch.com
2. In the upper right hand corner select "Place Order" and enter the Package Code: **id54**

About CastleBranch

Tidewater Community College - Radiology has partnered with CastleBranch, one of the top ten background check and compliance management companies in the nation to provide you a secure account to manage your time sensitive school and clinical requirements. After you complete the order process and create your account, you can log in to your account to monitor your order status, view your results, respond to alerts, and complete your requirements.

You will return to your account by logging into castlebranch.com and entering your username (email used during order placement) and your secure password.

Order Summary

Payment Information

Your payment options include Visa, Mastercard, Discover, Debit, electronic check and money orders. Note: Use of electronic check or money order will delay order processing until payment is received.

Accessing Your Account

To access your account, log in using the email address you provided and the password you created during order placement. Your administrator will have their own secure portal to view your compliance status and results.

Contact Us

For additional assistance, please contact the Service Desk at 888-723-4263 or visit <https://mycb.castlebranch.com/help> for further information.

The Health Science Professions Division has a contract with CastleBranch.com to conduct the criminal background/sex offender, fraud and drug checks on all students. The cost is currently \$95, but is subject to change. The Radiography program **does not** look at individual student results nor do we keep the results on site. The service indicates the student is clear by a "green check mark". If the service indicates a yellow or red check, the student will be prohibited from clinical education, and therefore the program. Students unable to obtain "green" clearance on all checks prior to the deadline may reapply for admission into the program the following year. Students will be informed if they have received a yellow or red check on the drug check. If the student feels that the yellow or red check is a mistake, or if more documentation is needed, the student needs to communicate directly with Castle Branch to determine why they received a yellow or red check, and can work directly with them to resolve the issue. If Castle Branch performs the drug test again and the student receives all green checks the student may proceed in the Radiology program. Retest of the drug test must be completed by the deadline date on the checklist will be at the expense of the student.

Survey of Common/Uncommon Radiographic Procedures

Procedure	Very Common	Common	Not Very Common	Rare (or) Never Done
Arthrograms	CP , MMC	P (for MRI) C, L	N	VB
Myelograms/Lumbar Puncture for Pain Management	C, CP, MMC	P , N, VB	L	
Cholangiograms (OR)		L, MMC, VB	P , C, CP	N
Trauma Skulls		CP	P, C, L, MMC, N, VB	
Trauma C-Spines	CP	P, C, L, N, VB		MMC
Routine Skulls			P, C, CP, L, MMC, N	VB
Facial Bones		CP, L, MMC, VB	P, C, N	
Hysteros	C	P, CP, MMC, N, VB	L	
ERCP	P, C , CP, L, MMC	N, VB		
Sinuses	P, CP, L	MMC, N, VB	C	
Mandibles		CP, MMC	P, C, L, N	VB
Panorex		CP, L , MMC N	P, C , VB	
Cystourethrogram (OR)		P, C, CP, L, MMC, VB	N	
Procedure	Very Common	Common	Not Very Common	Rare (or) Never Done
Cystourethrogram (In-Dept)		CP	P, C, L, MMC, N	VB
Tomograms - Other		C, L	P, CP,VB	MMC, N - No Units
TMJ's			P- (done with panorex)	C, CP, L, MMC, N (done with panorex), VB

Barium Enema - Single & Air Contrast/Double	MMC - both (M, W & F) C - DBL CP-both	P-both L-both MMC - both (Tues. & Thurs)	C- Single CP - Single DACBE N - most with air VB - Single	
Small Bowel Only Exams	P, C, CP, N	L MMC	VB	
Modified Barium Swallow	P, C, CP, L, MMC, N		VB	
Bone Density	P, C, CP, N			L, MMC, & VB - No Units
Defecography	CP, L, MMC			P, C, VB, N
Pediatrics - Contrast		CP	MMC	P, C, L, N, VB
Pediatrics- Other (Chest & Extremities)	P	C, CP, L, MMC	N, VB	
Scoliosis Series		P, CP, N, MMC	C (Jennings) VB	

P - Sentara Princess Anne Hospital
C - Chesapeake General Hospital
CP- CarePlex Hospital
VB - Sentara Va. Beach General

L - Sentara Leigh Hospital
MMC- Maryview Medical Center
N - Sentara Norfolk General

Appendix F



TIDEWATER COMMUNITY COLLEGE
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Voluntary Program Commitment and Waiver Form

I understand that my involvement in the TCC Radiography program commitment, when combining classroom and clinical requirements, should not exceed **40 hours per week**.

I understand that if I choose to complete extra clinical time or makeup any missed clinical time during the course of a semester or during semester breaks, or participate in a specialty modality, that this practice is **voluntary** on my part, and in no way is required by program policy.

Student Name (printed)

Student Signature

Date

Health Insurance Portability and Accountability Act

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) requires health care providers to abide by the regulations for privacy and confidentiality of protected health information (PHI). The HIPAA regulations pertain to all individually identifiable health information within the program's clinical affiliates, whether the information is electronic, paper, or spoken. In accordance with HIPAA, each program clinical affiliate has implemented policies and provides training for students within the Radiography Program during clinical orientation. Students must sign a Confidentiality Agreement prior to beginning his/her clinical education.

HIPAA Guidelines for Professionals can be found on the Health and Human Services (HHS) website: <https://www.hhs.gov/hipaa/for-professionals/index.html>.

All TCC Radiography Students are required to adhere to HIPAA regulations and be in compliance at all times, whether attending clinical, on campus, or on their personal time. Violations of HIPAA include but are not limited to:

- Documenting any individually identifiable health information/protected health information (PHI) on Trajecsys.
- Photographing, printing, copying, sharing, posting/publishing, uploading or removing documents containing PHI from the medical facility
- Discussing patient cases in public areas of the hospital such as elevators or the cafeteria, or outside the clinical site
- Discussing patient cases with anyone who is not on a "need to know" basis
- Taking photos or videos of patients or photos or videos of patient images
- Transmitting any patient related information or image by any electronic media (texting, social media, etc.)

Violation of HIPAA guidelines may result in a Written Warning, Clinical Probation or Program Withdrawal depending on the severity of the violation. If the infraction results in removal of the student from the Clinical Site, the student will be withdrawn from the Radiography Program.

Students may retrieve copies of images with the permission from the facility for educational purposes only after PHI has been removed.



TIDEWATER COMMUNITY COLLEGE RADIOGRAPHY PROGRAM

HIPAA Policy/Protocol

HIPAA law became effective April 14, 2003. Students must secure patient files and records **100%** of the time at all sites and undergo HIPAA training both at TCC and at each clinical site. Students must sign the Radiography Program *Confidentiality Statement* which is kept in each student's file at TCC in the Radiography Program Office. Students complete annual HIPAA training at TCC and at each clinical site. A signed TCC HIPAA Training Record will be kept in each student's file in the Radiography Program Office.

STUDENT TRAINING RECORD

Class of 20__

Training Topic: HIPAA: Privacy Compliance

Date of Training: _____

Student Name: _____ (Print Please)

Name of Trainer: Sara Lewis; R.T. (R)
Clinical Coordinator, Radiography Program

Summary of Content:

Explanation of the Health Insurance Portability and Accountability Act (HIPAA), HIPAA Privacy Rule, Patient Privacy Rights and Protected Health Information; Rules for the Use and Disclosure of Protected Health Information; Consequences of HIPAA Violations. Viewing of Video presentations: *HIPAA Training Part I & II*; Signed RAD Program *Confidentiality Statement*.

Student Signature: _____

Trainer Signature: _____

Sara Lewis, R.T. (R)

*This form will be kept on file in your folder in the Radiography Program Office



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Release of Student Information

I hereby give permission to the Tidewater Community College Radiography Program to release copies of my CPR certification card and physical examination form to the program's clinical affiliates. I understand that this will verify my certification in cardiopulmonary resuscitation and immunization status.

I give permission to program officials to discuss my academic and clinical progress and grades when pertinent with TCC clinical instructors, adjunct faculty and radiology supervisors as potential employers.

Student name printed

Student signature

Date



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Radiography Program
Handbook Acknowledgement and Agreement

This handbook has been prepared to assist you throughout the next two years of education in the TCC radiography program. You are expected to review and become familiar with all its contents.

Be wise. Become familiar with program policies before you inadvertently break them. Make sure you understand the consequences.

Program faculty members will be glad to explain anything in the handbook that you may have difficulty understanding. Do not assume you understand something; ask for an explanation if you have any questions.

Please read, sign, cut out and return the form below to the program director upon receipt of a copy of the Handbook at the end of your first summer semester and by the start of the Fall semester (first clinical semester).

By signing this statement, I acknowledge receipt of the TCC Radiography Student Handbook, and I agree to observe all policies and procedures outlined in it.

Student name printed

Student signature

Date

This form will be retained in your Radiography Program file. A copy will be kept in your clinical file.