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SECTION 1

Program Introduction
CATALOG POLICY/RIGHTS RESERVED
Information in this catalog is subject to change without notice and does not constitute a contract between Sentara RMH School of Radiologic Technology and a student or applicant. While every effort is made to ensure the accuracy of published information, the School reserves the right to make necessary changes in any or all of the regulatory policies and procedures, requirements, personnel, curriculum offerings, general information, and tuition and fees contained herein, and to apply revisions to current and new students alike.

MANDATORY BACKGROUND CHECK / DRUG SCREENING
All students accepted into the program will be subject to a drug screening and criminal background check. The criminal background check and drug screen are at the student’s expense. If a student fails a drug screen and/or a criminal background check, the student /applicant will be terminated from the program. All misdemeanor or felony offenses require ARRT pre-approval regardless of when they occurred. Contact the ARRT (www.arrt.org) if you have any questions. Response time from the ARRT could take up to 8 weeks and may incur a fee. Drug screenings may be performed at any time during enrollment.

ACCREDITATION
The (JRCERT) Joint Review Committee on Education in Radiologic Technology is the accrediting agency for Radiography. 20 N. Wacker Drive, Suite 2850, Chicago, IL. 60606-2901. Telephone: 312-704-5300 www.jrcert.org

The School of Radiologic Technology at Sentara RMH has been awarded an 8-year accreditation until 2022.

The Sentara RMH School of Radiologic Technology has been certified to operate in the Commonwealth of Virginia by the State Council of Higher Education (SCHEV). 101 N. 14th Street, James Monroe Bldg., Richmond, Va. 23219 Tel: 804-225-2600 www.schev.edu

Sentara Hospitals are accredited by:  Det Norske Veritas Healthcare, Inc. 400 Ravello Dr., Katy, TX 77449  Tel:(281) 396-1000

This Handbook gives an overview of the program at Sentara RMH. The contents of this booklet are subject to change. The Radiology School consistently strives to exceed the minimum requirements for compliance with all JRCERT and SCHEV standards. In the event that a student has cause for concern that the program may not be in compliance with any standard(s), they are encouraged to report the allegation, in writing, to the Program Director. The report must be submitted with 10 academic days
of the event of alleged non-compliance. The Program Director will work with the student and any other involved program member in an effort to clarify or resolve the issue of alleged non-compliance. In the event that a satisfactory resolution cannot be attained, the student is encouraged to report the alleged issue of non-compliance directly to the JRCERT and/or SCHEV.

PROGRAM ASSESSMENT AND GOVERNANCE

The students’ input in the program’s governance is extremely valuable. There will be several areas of the program operations that will be evaluated during the students’ educational experience. Suggestions for improving the program are through assessment surveys, in class or personal discussions and class meetings.

Students’ also help in the decision-making responsibilities by serving as class representatives on the program’s SWOT Committee (Strengths, Weakness, Opportunities, and Threats).

MISSION STATEMENT

The mission of the Sentara RMH Radiography Program is to prepare students with the highest educational experiences to become successful entry-level radiographers demonstrating outstanding levels of professionalism, academic, and clinical competence in serving their patients, community and the profession.

RADIOGRAPHY PROGRAM GOALS AND OUTCOMES

Goal 1: Students will be clinically competent.
Student Learning Outcomes:
- Students will position patients properly.
- Students will practice radiation protection.
- Students will select appropriate technical factors.

Goal 2: Students will show professionalism.
Student Learning Outcomes:
- Students will exhibit professional behaviors.
- Students will determine importance of professional development.

Goal 3: Students will communicate effectively.
Student Learning Outcomes:
- Students will use effective oral communication skills.
- Students will use written communication skills.

Goal 4: Students will utilize critical thinking skills.
Student Learning Outcomes:
- Students will manipulate technical factors for non-routine examinations.
- Students will be able to adjust to non-routine situations.
PROGRAM PERSONNEL

Russell Crank, MS, RT(R), Program Director
Carla Williams, BS, RT(R)(M), Clinical Coordinator
Amber Rinker, AAS, RT(R), Clinical Instructor
TJ Noser, MA, RT(R), Clinical Instructor
Sue Rose, RT(R), Clinical Instructor (AH)
Tom Noser, RT(R), Clinical Instructor (PMH)
Val Liberace, MD, Medical Advisor
FERPA

GUIDANCE FOR ELIGIBLE STUDENTS TO THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

FERPA is a federal law that protects the privacy of student education records. Once a student reaches 18 years of age or attends a postsecondary institution, the student becomes an eligible student and all rights formerly given to the parents under FERPA transfer to the student.

Students have the following rights under this law:

1. Inspect and review education records within 45 days of the written request. The student may submit the request to the Program Director.
2. Request an amendment to their education records when they believe the records are inaccurate or misleading. While the school is not required to amend the records, the school is required to consider the request. If the school does not amend the records, then the student has the right to a hearing. If the school still decides not to amend the record, the student has the right to insert a statement in the record setting forth his or her views. Under FERPA, the amendment procedure may not be used to challenge a grade, an opinion, or a substantive decision made by the school about an eligible student. If FERPA’s amendment procedures are not applicable to an eligible student’s request for amendment of educational records, the school is not required under FERPA to hold a hearing on the matter.
3. Under FERPA, the school may not generally disclose personally identifiable information from an eligible student’s education record to a third party unless the eligible student has provided written consent. There are a number of exceptions to this statement including:
   • FERPA allows school officials to access personally identifiable information provided the individual has a legitimate educational interest
   • FERPA allows a school to disclose to another school personally identifiable information if the student is seeking to enroll in the school requesting the information
   • FERPA permits disclosure of personally identifiable information when the disclosure is in connection with financial aid for which the student has applied or received
   • FERPA allows for disclosure in connection with an audit or evaluation from a federal, state, accreditation agencies, in connection with a crime of violence, or to comply with a judicial order or subpoena
4. Complaints concerning alleged failures by the school to comply with FERPA may be filed with the United States Department of Education.

Sentara RMH School of Radiologic Technology defines school officials as Program Directors/Coordinators, Faculty, Instructors, and Administrative Staff. These individuals are allowed to review a student’s education record as needed in order to fulfill his or her professional responsibility.
FERPA allows disclosure of personally identifiable information without consent under certain circumstances—examples include:
   • Disclosure to parents if a student violates federal, state, or local law
Disclosure to parents if a student under 21 years old (regardless of dependency status) violates any rule related to use or possession of alcohol or a controlled substance

The School may disclose personally identifiable information without consent to appropriate parties in connection with a health or safety emergency.

FERPA also allows for disclosure of directory information, without consent, including student name, address, email address, telephone listing, photograph, date and place of birth, field of study, dates of attendance, degrees/awards, and enrollment status.

Radiology student data such as student name, program, and email address are housed in the Sentara RMH School of Radiologic Technology.

Annual notification of student rights under FERPA is accomplished by the annual update of the Catalog and Student Handbook. Students have continuous access to this document through www.sentararmhonline.com and may print one at any time for their own reference.

At registration, students will sign a release form as follows:

NOTIFICATION OF RELEASE OF INFORMATION

Sentara RMH School of Radiologic Technology is not a profit educational division of Sentara Healthcare. The School reserves the right to forward pertinent information to Sentara managers and/or Sentara Human Resources as required or requested which may include but is not limited to grades, GPAs, transcripts and student evaluations. This information may affect the student’s employment with Sentara Healthcare. The School also reserves the right to receive information from Sentara managers and/or Sentara Human Resources regarding conduct if the student is also employed by Sentara Healthcare. This information may affect the student’s status in the program.

Print Name Legibly ________________________________

Signature______________________

Date____________

Questions related to FERPA can be addressed by Sentara RMH Radiology School administration or by writing:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Ave, SW Washington, DC 20202-8520

Revised 6/2015
Section 2

GENERAL INFORMATION FOR STUDENT
GENERAL INFORMATION

NON-DISCRIMINATORY POLICY
Sentara RMH is an Affirmative Action/Equal Opportunity employer committed to the hiring, advancement and fair treatment of every individual. RMH/Sentara healthcare, and its affiliated, do not discriminate against any individual or group of individuals on the basis of age, color, disability, gender, national origin, race religion, sexual orientation, veteran status or genetic information.

ORIENTATION
Orientation is held in spring prior to the start of the program. Attendance is required since much of the material covered is necessary for the student to be allowed to participate in clinical experience at the health facility. It includes orientation to the program and the health facilities. Rules, regulations and policies of each facility and the program are presented.

HOUSING
Each student is responsible for his/her own accommodations.

TEXTBOOKS
• Textbooks are purchased semestery and yearly by the student.
• Textbooks may be picked up at the BRCC bookstore.
• Students will be notified when the textbooks have arrived.
• A date will be set by the faculty stating when the student is expected to have the required books in class.
• The student is expected to purchase new textbooks. If the student has the opportunity to purchase used textbooks, these must be approved by a faculty member.

FINANCIAL ASSISTANCE
RMH does not participate in state or federal financial assistance. Financial assistance is available for qualified applicants through colleges for courses taken there. Please contact the Financial Aid Department at those institutions for further information. Online sites such as www.fastweb.com and www.finaid.com provides information on scholarships and student loans. Students who apply to these sites are cautioned to do so responsibly.

VETERANS BENEFITS
Veterans should contact Veterans Administration for information concerning eligibility if you plan to use VA benefits. The following are sites for active-duty military, military dependents, and veterans:
• Information and application for benefits: www.gibill.va.gov.
• Search source for potential scholarships: www.military.com.
• Travers Scholarship and Loan Program: www.nmcrs.org/travers.html
SCHOLARSHIPS
The Martha S. Showalter scholarship and The Catherine O. and Lyall O. Steger, Jr. Scholarship are available to second year students. Scholarship amounts will vary from year to year.

HEALTH PHYSICAL / INSURANCE
The student is required to have a physical examination with a current immunization record prior to the first day of clinical education. Each student is highly recommended to show evidence of health care coverage on the physical examination form.

PROFESSIONAL LIABILITY INSURANCE
A major focus of any medical profession must be patient safety. Students are responsible for their own acts, therefore it is strongly suggested all students carry liability insurance.

HIPPA / CONFIDENTIALITY
Health Insurance Portability and Accountability Act (HIPPA) / Confidentiality will be practiced at all times. This is reviewed during orientation and throughout the program. Any violation of this policy will lead to disciplinary actions or dismissal from the program.

PROFESSIONAL ORGANIZATIONS (ASRT, VSRT)
Each student is strongly encouraged to join the available professional organizations. Membership gives the student exposure to the profession and the latest technical advancements, information of continuing education opportunities and employment opportunities nationally as well as locally.

EDUCATIONAL OPPORTUNITIES WITH THE UNIVERSITY OF VIRGINIA
For students with an Associate’s degree wishing to pursue a Bachelor’s degree, the University of Virginia has created a pathway for nationally certified healthcare professionals. The Bachelor of Professional Studies in Health Sciences Management prepares students with technical backgrounds in radiography to assume managerial and leadership roles in the health care system. This is an online course designed for working healthcare workers on a part-time basis. To learn more about this degree program go to www.scps.virginia.edu/BPHM.

STUDENTS EDUCATED IN FOREIGN COUNTRIES
Applicants educated in non-English speaking countries are required to submit proof that their foreign transcripts have been evaluated by an organization recognized for foreign transcript evaluation. This official evaluation must be submitted in lieu of the official foreign transcripts.
HEALTH AND SAFETY REQUIREMENTS

A. The following guidelines govern health insurance and injuries for a student enrolled in hospital-sponsored schools (laboratory and radiology).
   1. A student is not eligible for worker's compensation coverage. The student that is also a hospital employee should refer to the Hospital's Personnel Policy and Procedure Manual.
   2. The student will not be included in, or eligible to join, the hospital health plan. The student is encouraged to have health insurance coverage on their own or through their parents or spouses. The student will be responsible for the cost for any treatment, evaluation, testing, therapy, care and other services.

B. The following guidelines apply to pre-enrollment health screening exams:
   1. Once tentatively accepted for enrollment, the student will be responsible for the cost for health screening exam.
      Pre-enrollment screening will include, but not be limited to:
      * Laboratory Work (Varicella, Rubella, Mumps, and Rubeolla Titer)
      * Medical History
      * Physical
      * Vital Signs and Statistics
      * Visual Acuity
      * Immunizations – Hepatitis B series is required. Tetanus immunization is required if not received within past 10 years.
      * PPD Skin Test – 2 step TB Test is required.
      * Urine Drug Screening

      The findings of the screening exam will indicate that (a) a student can perform the essential functions of the educational program, (b) a student can perform the established technical standards, and (c) a student’s participation or performance will not jeopardize the health or safety of others. Failure to meet the above criteria will result in dismissal from the program.

C. Emergency Provision
   If at any time a student becomes ill or injured, he/she should report to the program staff. If medical care is needed, the student has the choice of being seen in the emergency room by the emergency room physician or by their own physician of choice. (The student is responsible for cost of services. The hospital and school will not assume responsibility for student health care.)
Americans Disabilities Act (ADA)

The American Disability Act (ADA) is to protect students who may have special needs and will be provided with reasonable accommodations to help them achieve their academic goals.

Disclosure is strictly voluntary; therefore a student with a disability has the legal responsibility to request any necessary accommodations within a timely manner with appropriate current documentation to the School of Radiologic Technology.

When the needs of the student have been identified, they will need to meet with the program director, instructors, and human resources to determine what level of accommodations will be needed. Due to the nature of the work in the clinical setting, patient care and safety must be considered when asking for accommodations.

Statement of Non-Discrimination

Pursuant to Section 504 of the Rehabilitation Act of 1973, Sentara RMH School of Radiologic Technology will provide services and training, without discrimination, to any qualified handicapped person who meets academic and technical performance standards requisite to admission and/or participation in the radiologic technology program.
Technical Standards

Essential Functions and Standards for Successful Performance

To successfully complete the classroom and clinical components of the program, the student in the Radiography program must, either independently or with reasonable accommodation, be able to perform all of the following essential standards and functions of a registered Radiographer.

1. **Speech**: Establish interpersonal rapport and communicate verbally and in writing with clients, physicians, peers, family members, and the health care team from a variety of social, emotional, cultural, and intellectual backgrounds.

2. **Hearing: Auditory**: Abilities (with corrective devices) sufficient to detect and respond to verbal communication / instruction and acoustic signals on medical devices and equipment from a distance of 6 to 10 feet; use the telephone; function when the use of a surgical mask is required for protection of the patient and/or hospital personnel.

3. **Vision/Reading**: Visual acuity (with corrective lenses) sufficient to identify and distinguish colors; see / read handwritten orders and any other handwritten or printed data such as review orders, requisitions and reports; provide for the safety of clients’ condition by clearly viewing monitors and other equipment in order to correctly interpret data; and to evaluate radiographic quality.

4. **Writing**: Ability to organize thoughts and present them clearly and logically in writing either in classroom or clinical setting.

5. **Mobility**: Stand and/or walk for extended amounts of time in laboratory or clinical setting; bend, squat, kneel, lift, move or push heavy equipment (mobile x-ray machine, patient in wheelchair/stretchers/hospital bed, image receptors and x-ray accessories); assist in lifting or moving clients of all age groups and weights; work with arms fully extended overhead; wear required heavy protective lead aprons during some radiographic procedures. Lift up to 50 pounds.

6. **Manual Dexterity**: Demonstrate eye/hand coordination sufficient to manipulate x-ray equipment or hospital equipment; ability to use hands for grasping, pushing, pulling, and fine manipulation; tactile ability sufficient for physical assessment and manipulation of equipment.

7. **Student Conduct**: Students must adhere to the codes of confidentiality; conform to appropriate standards of dress, appearance, language and public behavior; demonstrate professional demeanor and behavior; perform all aspects of work in an ethical manner in relation to peers, faculty, staff and patients; show respect for individuals of different age, ethnic background, religion and/or sexual orientation.
RADIATION PROTECTION
Students are to practice ALARA standards at all times. When doing portables or fluoroscopic procedures students must wear lead aprons. A student shall not hold patients or IR for general procedures.

STUDENT RADIATION MONITORING
To help insure that the student is working in a safe environment, the amount of radiation received will be monitored. Radiation film monitoring devices will be issued to each student every month.

It is the responsibility of the student to wear the assigned film monitoring devices at all times while in the clinical setting. The student must use caution as not to lose or damage the monitoring device. The G1 (Total Body) monitoring device is to be worn on the collar near the neck. When wearing a lead apron, it is to be worn on the outside of the apron. The monitoring device will be placed in a holder which must face forward at all times for an accurate reading. At the beginning of each month, the clinical instructor will collect the used monitoring devices and issue new monitoring devices. The readings from the monitoring devices will be recorded in the student’s permanent record at Sentara RMH and will be reviewed each month by the radiation safety officer. Students whose report indicates that their exposure exceeds ALARA I will receive written notification and will be required to meet with the Radiation Safety Officer to review radiation safety practices. Students whose radiation monitor report exceeds ALARA II will meet with the Radiation Safety Officer and the Program Director. The incident may require investigation and follow-up actions. Upon recommendation of the Radiation Safety Officer, the student may be removed from the clinic for a specified period of time. Any time missed in the clinic must be made up prior to graduation.

ALARA INVESTIGATIONAL LEVELS
(mrems / calendar quarter)

<table>
<thead>
<tr>
<th>AREA EXPOSED</th>
<th>LEVEL I</th>
<th>LEVEL II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole body</td>
<td>125</td>
<td>375</td>
</tr>
<tr>
<td>Extremities/Skin</td>
<td>1250</td>
<td>3750</td>
</tr>
<tr>
<td>Lens of the eye</td>
<td>375</td>
<td>1125</td>
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Students are required to review and initial monthly reports. Each student is issued a badge number to protect their privacy.
A student who has forgotten or misplaced their radiation badge will not be allowed in clinical until their badge is retrieved or a temporary badge is issued.
Proper care of dosimeter is discussed with students prior to clinicals.

Student radiation monitoring badges are to be left in the school each night except when the student is scheduled to rotate to an off-site facility the next day. Failure to follow this policy could result in disciplinary action.

After graduation, the permanent record of radiation dose will be placed with the departmental administrator. To obtain a copy of these records, the student must request the information to be released.
PREGNANCY POLICY
1. It is the discretion of the student to inform the program director of her pregnancy. This must be a written notice of voluntary declaration. If the student chooses not to inform the program director of her pregnancy, then existing and standard radiation protection guidelines shall be followed.
2. If formally informed of the pregnancy, then the program director shall contact the Radiation Safety Officer.
3. A student shall acquire, if not already obtained, a written declaration of pregnancy, which shall include the estimated date of conception. This written declaration shall be signed and dated.
4. An educational pregnancy packet will be given to the declared pregnant student, which includes this pregnancy policy and a copy of Regulatory Guide 8.13, entitled “Prenatal Radiation Exposure.”
5. A fetal dosimetry monitoring device will be ordered. The student will wear this monitoring device on her abdomen. She will receive instructions regarding proper use of the monitoring device.
6. An informal conference will be scheduled with the Radiation Safety Officer to review Regulatory Guide 8.13 and she will have the opportunity to discuss any questions or concerns that she may have.
7. After reading Regulatory Guide 8.13, the student has the following options regarding status in the program. She may elect to 1) take up to a 1-year leave of absence from the program. This leave may be extended for an additional year if requested by the student. The student may only receive one extension. After that the student will need to re-apply to the program for admission. The student will be given consideration of courses completed previously. 2) The student may elect to participate in a modified clinical experience, with the understanding that all clinical expectations will need to be completed before the student will be allowed to graduate. 3) The student may elect to participate in the classroom portion only during the pregnancy with the understanding that all clinical requirements must be met to satisfy graduation requirements. 4) The student has the option of withdrawing from the program, or 5) have the option for continuance in the program without modification.
8. If the student declares her pregnancy, she will need to provide a statement from her physician concerning her ability to safely function in the program.
9. The student has the option to voluntarily withdrawal the declaration of pregnancy at any time in writing to the Program Director.

It is both the procedure and practice of this program to offer maximum radiation protection to the student; SRMH will assist both the mother and the fetus to minimize radiation exposure during pregnancy, in accordance with the ALARA concept.

BLS CERTIFICATION
Students are required to obtain basic life support (BLS) certification from the American Heart Association. This training must be in adult, infant, and child CPR plus automatic external defibrillation (AED). Record of certification must be presented to program officials by the start of Fall I Semester. Two year certification is preferred.
DRESS CODE - CLASSROOM AND CLINICAL:
The student must wear solid black scrub tops and pants at all times. A solid black, white or gray shirt may be worn under the black scrubs. The solid shirt cannot have any logos or designs.

A. The uniform is to be kept clean, neat and pressed.
B. Shoes are to compliment black scrubs and to be kept clean. If shoes are not black or white, color should be approved by faculty. Footwear shall be solid surface made of non-absorbent and non-perforated materials (no nylon or canvas material). In keeping with OSHA standards, shoes in patient care areas must be closed toed and no holes on top.
C. Solid white or black socks may be worn to match the color of scrubs.
D. Hair is to be clean and groomed so as not to fall onto a patient or interfere with patient care. Hair coloring must look like a natural color (No purple, blue, glitter, bold, etc.) A black or white hair ribbon/bow may be worn.
E. Jewelry is to be simple and limited to that which presents no safety hazards for the patient or self. Hazardous jewelry would include dangling necklaces and earrings. Facial and tongue piercing, and excessive (more than 2) ear adornments are not permitted. Ear “gauging” is not permitted.
F. Students must not wear fragrances due to the increasing number of allergies.
G. The student is expected to practice good hygiene. Fingernails are to be clean and groomed and nail polish is to be a moderate color. No artificial nails are allowed and fingernails can be no longer than ¼ inch length. No neon color polish. Make-up must be professional and must not attract undue attention.
H. Clothing must not reveal the navel, breast or bottom. Denim clothing, camouflage, jeans, t-shirts, tank or tube tops, is not permitted.
I. No visible tattoos.

Sentara RMH must ensure a consistent, professional image for our patients and customers. The student is reminded that our patients or visitors may potentially be offended by certain fashion statements; therefore, the faculty reserves the right to determine what is appropriate on a case-by-case basis. A student who does not adhere to the above dress code will be given one warning. With the second incident, the student will be asked to leave the clinical setting and return only when wearing appropriate attire. All missed clinical time will be made up at the discretion of the clinical instructor.

CELL PHONES
All cell phones shall not be visible and shall be turned off during class/clinical hours to avoid becoming a distraction. This includes no texting or checking of emails on phones during these periods. This is only permissible during scheduled classroom or clinical breaks in designated areas.

Cell phones shall not be used to record images of patients, patient/customer information, Sentara employee images or Sentara proprietary information.

ATTENDANCE
The 21 month program consists of 5 consecutive semesters. The sequence begins in the fall of each year. Scheduled college holidays and semester breaks will be observed unless otherwise scheduled to meet designated clinical didactic objectives. The student will be scheduled to no more than 40 hours (maximum of 10 hours/day) clinical/didactic instruction per week.
Attendance to all RAD classes is mandatory. Only one section of each RAD course is offered yearly so it is imperative that missed days are kept to a minimum as it is difficult for the student to catch up on the course material. The student is required to call the instructor if they are going to be absent from the class. Attendance to all examinations is required.

Clinical experience attendance is mandatory. The student is required to check in and out for all clinical experiences at all facilities. Each clinical course has a required amount of competencies, which must be met before a clinical grade can be given. Any absences, other than illness or emergency situations, must have prior approval of the faculty. Failure to obtain prior approval may result in disciplinary action being taken.

Any missed assignments are the student’s responsibility. Missed assignments must be made up within 2 days or at the discretion of the instructor.

Time missed resulting in a student having minus hours will require the student to be put on probation until time is made up.

Make up time will be scheduled in 8 hour increments or at the request of the students in 10 hour increments. Make up time may be scheduled during school breaks (no scheduled holidays) if approved by Program Director.

**HOURS**
A student in the program will be scheduled for up to and not to exceed 40 hours per week or a maximum of 10 hours per day in the classroom/clinical setting.

General hours for clinical assignments are daylight hours with some evening assignments required.

**PUNCTUALITY**
The student is expected to be punctual and prepared for all scheduled class and clinical sessions. Students should arrive at the clinical site and classroom ten to fifteen minutes prior to the scheduled time and report to their assigned area on time.

**TARDINESS**
A grace period of ten minutes will be allowed before the student is considered late; however, the student is expected to be on time. For those people who do come after ten minutes and are therefore considered late, the following progressive discipline will take place:

- 1st occurrence: Stay after the same day the equivalent amount of time tardy.
- 2nd occurrence: Stay after the same day the equivalent amount of time tardy.
- 3rd occurrence: In writing, describe an action plan that will identify the steps to ensure this will not occur again and make up the equivalent time tardy as designated by the school clinical coordinator(s) and program director.
- 4th occurrence: Make up half a day as designated by the clinical coordinator and program director.
- 5th occurrence: Make up full day as designated by faculty. Student placed on probation and administrative director of department will be notified of action taken.
- 6th occurrence: The student will be suspended for two days at time tardiness occurs. (This will require student to take personal time.)
- 7th occurrence: The student will meet with faculty and administrative director of the department to discuss possible dismissal from the program.
PERSONAL LEAVE TIME / SICK TIME
The student is given 50 hours of personal leave time to be used during the twenty-one months of clinical experience. The time can be used for vacation, sick leave, emergencies, or for other approved personal time. Personal time is to be scheduled 24 hours in advance, except in the case of an illness or emergency, the student is to contact program personnel as soon as possible. If no one can be reached, a message is to be left on the voice mail of program personnel. If a student calls in sick then they must take the whole day. A student whose absenteeism due to illness exceeds two consecutive days is required to obtain a written excuse from their primary care physician. The student is required to report any exposures to communicable diseases. The student is responsible for all missed work.

LEAVE OF ABSENCE
Leave of absence will be handled on an individual basis. Didactic instruction must be completed properly, and all missed clinical experience must be made up.

READMISSION TO PROGRAM
Prior to being granted readmission status, the student will be required to schedule a conference with the program faculty to document resolution of problem areas identified as the reason causing the student to leave. The following applies to readmission status:
- Readmission is not guaranteed
- Student must be in good standing when leaving the program
- Readmission is on a space available basis (number of seats available)
- Students may be readmitted one time only
- Readmission is limited to a one year window
- Students must have successfully completed at least 10 RAD program credits to be eligible.
- Students completing less than 10 RAD program credits successfully must go through a reapplication process to return to the program.

INJURIES OR ILLNESS
Injuries that require an extended absenteeism will be handled in the same fashion as leave of absence.

FUNERALS
Students will be granted 3 days of excused absence for funerals of their immediate family (parent, spouse, sibling, child, grandparents and in-laws). Program requirements must still be met upon return.

JURY DUTY or MILITARY LEAVE
Must be arranged with Program Director prior to the leave. Program requirements must still be met upon return.

HOLIDAYS
Holidays will be observed. These holidays include: Easter, Independence Day, Labor Day, Thanksgiving Day, Memorial Day, Christmas, and New Year’s
ADVERSE WEATHER CONDITIONS
The school will cancel or delay clinical and classes when Blue Ridge Community College closes/cancels/delays classes as follows:

- BRCC closed – School of Radiologic Technology closed
- BRCC delayed – School of Radiologic Technology starts at the same time as BRCC. If BRCC opens after 11:00AM, class and daylight clinical rotations are cancelled for the day.

If BRCC is not closed and because of the wide variety of driving conditions that may exist, each student should evaluate driving conditions and driving ability to determine if safe arrival at school is possible. If the student determines that driving conditions are hazardous they may take personal time.

Trauma Rotations
- BRCC closed evening classes on Monday, Wednesday and/or Friday – School of Radiologic Technology Trauma students are off and should not report to clinical rotation.

Trauma rotations missed during the week due to inclement weather:
- If 2 rotations are missed during the week they must be made up on Saturday and Sunday unless inclement weather.
- If only one night is missed, it must be made up on Saturday or Sunday of that weekend unless inclement weather.
- If all three nights are missed due to inclement weather the third night will be made up at the discretion of the faculty.

WORKING WHILE IN THE PROGRAM
The Radiologic Technology program is physically, emotionally, and academically demanding. If employment is interfering with meeting the objectives of the program, faculty may recommend that a student with a heavy work schedule modify their working commitments. **The student is responsible for assuring that their individual work schedule does not conflict with clinical and didactic commitments. The program will NOT make adjustments to the clinical or didactic schedules to accommodate the students work or personal schedule.**

STUDY TIME WHILE IN PROGRAM
Any free time between classes should be used efficiently. The student while at the Radiology School is expected to use their time to study, complete paperwork, and catch up on other school related work, or other duties associated with the school. The Radiology School is preparing the student for the working world by observing hours similar to actual working conditions and not to be treated as free time to address other subject matters not related to school activities.

ACADEMIC ADVISING
The Program Director and Instructors are available for academic counseling if the student so desires. Advising will always be held confidential and conducted in a positive and constructive fashion. Regular evaluation sessions are scheduled each semester to cover strength, opportunities for growth, and progress in the program. Voluntary counseling is encouraged whenever the student feels the need for it. If a professional counselor is deemed appropriate, the program will offer support in the referral process for the student.
FACULTY ACCESSIBILITY
Faculty office hours will be posted each semester or by appointment. Faculty can be reached at any time by phone, cellphone, text or email.

GRADING
Grades in all RAD and science courses must be a “C” (2.0) or better. The student must obtain a grade of a “C” (2.0) or higher in all required classes. If the student obtains any grade below a “C” in any RAD classes, this will result in the student’s withdrawal from the program. The student must maintain an overall GPA of 2.5 to remain in the program. (RAD courses are only taught once per year, which eliminates the possibility of retaking the course before the next session begins.)
A GPA below 2.5 will result in a probation period with possible suspension. The GPA must be brought back up to 2.5 by the end of the probation period to remain in the program.

GRADING SYSTEM (RAD courses)

<table>
<thead>
<tr>
<th>Points</th>
<th>Percentage</th>
<th>Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>94-100 Excellent</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>86-93 Above Average</td>
<td>B</td>
</tr>
<tr>
<td>2</td>
<td>78-85 Average</td>
<td>C</td>
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<tr>
<td>1</td>
<td>70-77 Failure</td>
<td>D</td>
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<tr>
<td>0</td>
<td>0-69 Failure</td>
<td>F</td>
</tr>
<tr>
<td>P</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Fail</td>
<td></td>
</tr>
</tbody>
</table>

CHEATING STATEMENT
Cheating will result in an automatic “F” for the course and suspension from the program and school.

PROBATION
Any of the following will constitute a minimum of a six-week probation period:
1. If students RAD GPA is less than 2.5 at Midterm;
2. Overall and/or RAD GPA less than 2.5;
3. Unsatisfactory/unsafe clinical performance. (Refer to “Unsafe Behavior” in Clinical Education); or
4. Second year students who receive unsatisfactory clinical evaluations will be counseled after the 2nd and placed on probation for 6 weeks after the 3rd. Upon receiving a 5th unsatisfactory clinical evaluation the student will be dismissed from the program.

GROUNDS FOR DISMISSAL
The grounds for dismissal are listed below. It should be pointed out that a student can be suspended from the program at any time during their training for violation of any one of the grounds listed either for academic reasons or disciplinary reasons.
1. Failing grades in radiology courses.
2. Insubordination.
3. Unauthorized possession, use or distribution of drugs and/or alcohol on hospital property, at the clinical facility or clinical facility property, as part of the school’s activities, or reporting to school under the influence of intoxicants or drugs, legal or illegal.
5. Unprofessional, unethical or immoral conduct.
6. Cheating in related or professional courses.
7. If Sentara RMH Medical Center refuses to allow a student on hospital property for violations such as theft or misconduct, the student will not be allowed to continue.
8. Calling in sick during normal school hours with the intention to work a job would be considered undesirable behavior. This behavior could lead to dismissal from the program.
9. Failure to follow appropriate radiation protection safety policies.
10. Sleeping in the clinical area.
11. Use of profane or abusive language or engaging in heated arguments.
12. Violation of organizational, facility or school policy, procedure or practice.

ACADEMIC APPEAL AND GRIEVANCE PROCESS
The program respects the students’ right to grieve or appeal decisions, which may seem unfair. Students are to use the grievance procedures to bring complaints to the attention of the school. The student and person(s) involved must make every effort to resolve complaints quickly as possible once they are identified.

Decisions made by the faculty or staff are considered final unless the student files an appeal. When a student believes a decision has been determined incorrectly or a disciplinary action is inappropriate, the student must: (1) file a written report (appeal) with either the instructor or program director, identifying specific reason(s) for the appeal. This appeal must be filed within 10 days (all days will be considered business days) of posting of the course grade or notification of a disciplinary action. The program official will have 10 days to reach a decision. (2) If the matter is not resolved to the satisfaction of the student, an appeal may be made to the Administrative Director of Radiology within 10 days. The Administrative Director of Radiology will have 10 days to render a decision on the matter. (3) If this decision is not satisfactory to the student, a final appeal may be made, within a 10-day timeframe, to the Vice President of Clinical and Support Services. A decision by this individual will be made within 10 days. This final appeal is considered to have been made to an entity independent of the program, whose decision will be considered final. No other options of appeal will be offered within the program.

COMPLAINT PROCEDURE
The radiology school will address any complaints apart from those that require invoking the grievance procedure. The Radiology school will determine if a pattern of complaint exists that could negatively affect the quality of the educational program (e.g., cleanliness of the classroom). A student complaint must be done in writing and submitted to the radiology school instructors. Submitted complaints will be recorded in a complaint log for documentation. The radiology school shall determine what solution can be implemented to solve the complaint. The student will not be subject to unfair action or treatment as a result of the initiation of a complaint.

EMPLOYMENT
The school does not guarantee job placement to graduates upon program completion or upon graduation. The school will provide a list of job opportunities in the surrounding areas.

INTERVIEWS - EMPLOYMENT
The student can be excused one day from clinical for employment interviews and will not be required to make up the time.
INTERVIEWS - CONTINUING EDUCATION (SCHOOLS/PROGRAMS)
The student will be excused from clinical to attend two interviews for educational programs and will not be required to make up the missed time providing all graduation competencies are met by the graduation date.

RADIOGRAPHY TUITION & FEES

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$4500/yr</td>
</tr>
<tr>
<td>Application Fee</td>
<td>$25.00</td>
</tr>
<tr>
<td>Textbooks (estimate)</td>
<td>$1100.00</td>
</tr>
<tr>
<td>Uniforms (estimate)</td>
<td>$200.00</td>
</tr>
<tr>
<td>Health Screening (estimate)</td>
<td>$200.00</td>
</tr>
<tr>
<td>Drug Screening/Back Ground Check</td>
<td>$65.00</td>
</tr>
<tr>
<td>ARRT Registry Exam</td>
<td>$200.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$10,790</td>
</tr>
</tbody>
</table>

*All fees are nonrefundable and subject to change.

TUITION PAYMENT

Tuition will be charged in the amount of $4500.00 per year payable by June 1st each year(subject to change). Checks should be made payable to Sentara RMH Medical Center. Changes to the tuition will be announced by January 1st for new incoming students.

TUITION REFUND

If a student withdraws from the program, a refund may be requested. Notice of withdrawal should be submitted in writing to the Program Director of the Radiologic Technology School.

The refund policy is as follows:

A. A student who enters the school but withdraws or is terminated during the first quartile (25%) of the program shall be entitled to a minimum refund amounting to 75% of the cost of the program.

B. A student who withdraws or is terminated during the second quartile (more than 25%, but less than 50%) of the program shall be entitled to a minimum refund amounting to 50% of the cost of the program.

C. A student who withdraws or is terminated during the third quartile (more than 50%, but less than 75%) of the program shall be entitled to a minimum refund amounting to 25% of the cost of the program.

D. A student who withdraws after completing more than three quartiles (75%) of the program shall not be entitled to a refund.

A student applicant may cancel by written notice, their enrollment at anytime prior to the first class day of the session for which application was made. When cancellation is requested under these circumstances, the school will refund all tuition paid by student, less a maximum tuition fee of 15% of the stated cost of the course or program or $100.00, whichever is less. A student applicant will be considered a student the first day of class.

The school is required to submit refunds to individuals who have terminated their status as students within 45 day after receipt of a written request or the date the student last attended classes whichever is sooner.
STUDENT SEMINARS
A student wishing to attend a Radiology seminar offered on a clinical day will be allowed to go at his or her own expense. If evidence of attendance to the seminar is presented to the program director, the clinical time will not have to be made up.

In the last semester of the program, second year students are required to attend a review seminar. Transportation and expense of the seminar is the responsibility of each student.

If necessary, time will be allotted for class-organized fundraising projects to offset the expenses of the review seminar. The projects must be approved by the faculty and meet hospital approval if on hospital grounds.

If a student fails to or wishes not to participate with the fund raising projects, the student will remain in the clinical setting and will be allowed to attend the seminar at their own expense.

The mock registry given at seminar is mandatory. Results of the mock registry are to be returned to the program director. Students, who fail to take the mock registry or be at the complete seminar, will make up the missed clinical time.

STUDENT CONFERENCES
Semesterly conferences will be held with each student. The conference may include the student, a clinical instructor and the director. This is an opportunity for the student to discuss any problems or concerns and make comments. Each student is encouraged to discuss questions, ideas, or problems with the program director or clinical instructors at any time not just during conferences.

SEXUAL HARASSMENT
It is the policy of the School of Radiologic Technology to maintain an educational environment free of sexual harassment, intimidation or exploitation (either physical, verbal or nonverbal).

- Physical
  - Unwanted touching, pinching, fondling, patting, kissing, coerced relations, sexual assault

- Verbal Sexual Harassment
  - Unwanted sexual advances, sexually suggestive comments, insults, threats, jokes about sex or gender-specific traits.

- Nonverbal Sexual Harassment
  - Whistling
  - Obscene gestures
  - Printed or written materials that ridicule, degrade, insult, belittle or show hostility

Specifically, it is everyone’s responsibility to help create an environment free of sexual coercion and unwanted conduct.

Any incidence of such conduct shall be reported promptly to program faculty or to the Human Resources Department.

- This policy covers the conduct and behavior of all students, employees and the acts of others.
- All reported incidents will be promptly investigated and disciplinary action will be taken for misconduct.
TRANSFER POLICY
Radiologic Technology Programs are not required to accept transfer students. Students transferring from a JRCERT approved program will be evaluated on a case-by-case basis.

If a student wishes to transfer to a different program, it is at the discretion of the receiving institution which credits will be accepted from the Sentara RMH School of Radiologic Technology.

RECORDING DEVICES
No recording devices are allowed in class without permission from the instructor. Recording devices in clinical areas are prohibited.

STUDENT RECORDS
Student records are confidential and maintained by the Sentara RMH School of Radiologic Technology. Students are required to report promptly any personal data changes: name, address, e-mail address, telephone number, etc. Student records, tests, and clinical folders containing grades or evaluations are locked in the Instructors’ offices. Access to these folders must be gained from an Instructor to ensure student confidentiality. Permanent records are kept in locked file cabinets.

RECORDS AGREEMENT
The School of Radiologic Technology at Sentara RMH does herewith certify that in the event the School of Radiologic Technology should close, student records will be maintained by Sentara RMH Imaging Services and will be stored at a Sentara RMH Hospital owned facility.

LOCKERS
Students will be assigned a locker at the school during the first week of class. The student is responsible for purchasing a lock. Sentara RMH assumes no responsibility for the loss of valuables from the lockers.

SOCIAL MEDIA
Social Media outlets are to be used responsibly and professionally by the student when referring to Sentara RMH. Media outlets such as face book should not be used to air grievances about the program or institution. Patient information, pictures, or other images associated with the institution may not be posted without permission. If any postings are deemed unprofessional, the student will be counseled and possibly dismissed from the program.

STATE LICENSURE
The graduate is responsible to apply for state licensure, where applicable, after the results of the ARRT examination are released. Each state will have specific rules for licensure.
STUDENT BENEFITS
There are many benefits that the students of the School of Radiologic Technology are offered. We offer academic counseling, use of employee health services, cafeteria discounts, computer access in the classroom, participation in all hospital celebrations, attendance by senior students to the VSRT Student, Educator and Technologist Seminar, VSRT membership, flu shots, HR counseling for resumes, use of medical library in classroom and hospital, scholarships to senior students, etc., to name a few of the benefits available to students. Benefits are subject to change at any time.

RESOURCES AVAILABLE TO THE STUDENT IN THE RADIOGRAPHY PROGRAM

Libraries: Harrisonburg Public Library
James Madison University Library
Blue Ridge Community College Library
Eastern Mennonite University Library
Sentara RMH Medical Library
Radiography Program Library

Non-energized Laboratory with various positioning, imaging and exposure aids

Energized Portable and C-Arm equipment

Numerous Computer Programs

CD/DVD

Radiographic Film Library
Section 3

CLINICAL EDUCATION
CLINICAL EDUCATION

The purpose of the clinical education in Radiologic Technology is to allow the student to apply theoretical principles of radiography, patient care, and radiographic procedures to practical experience. The clinical phase of the program is designed to reflect and correlate with the classroom and laboratory coursework. The goal of the program is to produce a qualified entry level technologist who is versatile and can adapt to any given situation or environment. The student will have the status of a learner and will not take the place of the staff radiographer.

Identification badges will be issued by Security to each student. Badges must be displayed above the waist so they are readily seen while in the clinical setting. If a student loses their badge, a replacement badge must be obtained from Security for a fee payable by the student. All badges must be returned to the school upon graduation or dismissal.

Students are assigned to the clinical rotation starting in January. If the assigned clinical area is not doing radiographic procedures, the student may assist in other areas in the clinical setting. In the event the student leaves the assigned clinical area, the student must inform the technologist or clinical instructor.

After a procedure is presented in the classroom, it is demonstrated in the laboratory. The student will do a return demonstration followed by a simulation of the procedure. In the clinical setting, the student observes the actual procedure and participates in the procedure under direct supervision. The clinical instructors evaluate the student's clinical competencies. Upon successful completion of a competency evaluation of the procedure, the student is allowed to perform the procedure with indirect supervision.

The importance of well utilized clinical time cannot be stressed enough. It is expected that any low volume time will be used for discussing problems, procedures and cases with the technologist or clinical instructor, practicing simulated radiographic procedures, or completing laboratory requirements for competency-based evaluations.

Periodically the program director, clinical instructor(s), and the student meet to discuss the student's progress in the program both in the classroom and clinical setting. Areas of strength, weaknesses, and ways for improvement are presented. The student is then given the opportunity to voice any problems, concerns, or ideas they may have with themselves or the program. However, since the program has an open door policy, the student is encouraged to approach any program personnel at any time.

Clinical rotation schedules are issued to each student prior to the beginning of each semester and will be displayed at each clinical site, faculty office, and in the classroom. All students will have equal opportunity to rotate through each site and modality. A student request for any changes in the clinical rotation schedule must be approved by program faculty.
In the first year, the student is assigned two days per week to a clinical area. The radiographic procedures taught in the first year include: general radiography, fluoroscopy, surgery, and portables. The student is rotated through the previously mentioned areas as well as transport, nursing, and reception.

In the second year, the student continues to rotate three to five days per week through the same radiographic areas in addition to specialized areas of trauma and other medical imaging modalities. The modalities consist of sonography, nuclear medicine, radiation therapy, mammography, MRI, CT, PET, special procedures, and heart catheterization.

Each student is required to keep an accurate record of the examination he/she observes, participates in or performs under indirect/direct supervision.

The student is responsible to help maintain a clean, well-supplied environment, which includes the radiographic rooms, waiting rooms, hallways and office area.

All students are expected to report promptly at designated times to their assigned clinical rotation site and must remain in their assigned clinical site unless permission is given by the supervising registered technologist, or program faculty. Program faculty can be reached by phone, cell phone, or email.

The student is required to follow all institutional and departmental policies, procedures, regulations and rules. Gum chewing, whistling, loud behavior and eating are not allowed in the clinical areas. There are designated areas within the building for eating. Departmental telephones are not to be used for personal calls. Personal calls are to be made during breaks on the available telephones. Cell phones are not allowed in the clinical setting.

While in the clinical setting, the student will be given a 15-minute break and a 30-minute meal break. The student is required to take breaks/lunch at the same time as their supervising technologist. The meal break may be off the hospital grounds; however, the 15-minute break must be within the institution. Students may not skip their lunch break in order to leave early at the end of the day.

The program director and/or clinical instructors are available to the student daily from 6:00 a.m. to 4:30 p.m. On the trauma rotation, the lead technologist is available to the student. The clinical instructors in cooperation assign clinical rotations with the supervising technologist.

For emergency situations, students have access to faculty home/cell telephone numbers.
SUPERVISION OF STUDENTS IN CLINICAL AREAS

Until the student achieves the required competency in a given area or on a given examination, qualified radiographers will directly supervise all clinical experience.

Direct supervision is:

1. The technologist reviews the request in relationship to the student’s achievements and abilities;
2. The technologist evaluates the patient’s condition in relation to the student’s achievements and abilities;
3. The technologist reviews positioning and technical factors prior to exposure; and
4. The technologist reviews and approves the finished images.

Students shall not take the responsibility or the place of staff technologists. After demonstrating competency, the student may be permitted to perform procedures with indirect supervision. Repeating of radiographs will be done only in the presence of a qualified technologist. All repeated radiographs are to be documented by the student & initialed by the technologist.

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

Students shall not hold patients during an exposure.

Disciplinary action for failure to adhere to Direct/Indirect/Repeat Policy is as follows:
1st violation: written warning
2nd violation: probation till the end of program
3rd violation: Dismissal from the program

EVENINGS AND NIGHTS
The evening clinical, trauma, will be scheduled as part of the clinical rotation. In the trauma rotation, the student may be assigned to clinical experience from Monday through Friday at Sentara RMH. Transportation to clinical sites is the responsibility of the student. The night shift, 11:00 p.m. to 7:00 a.m., will not be incorporated into the clinical schedule. Students are supervised at all times by a Registered Radiologic Technologist. If adverse weather conditions occur, the student should follow the Adverse Weather/Snow Policy. Trauma rotations missed must be made up.

POSITIONING BOOKS
The small notebook that is purchased for the purpose of writing down examination procedures is required for each student. This is the student’s positioning book, so the material within the book should reflect the student’s needs and requirements. This book is to be with the student at all times in clinical and MUST be neat, legible and up to date. The instructors will review the book periodically.
UNSAFE BEHAVIOR
Unsafe clinical behavior is demonstrated when the student:

1. Violates and threatens the physical safety of the patient (fails to provide proper restraints or constraints).

2. Violates or threatens the psychological safety of the patient (verbal abuse).


4. Assumes improper independence in action or decisions.

5. Fails to accept moral or legal responsibility for own action, violating professional integrity (covers up own errors; violates patient confidentiality).

6. Fails to follow established safety rules.

7. Violation of any regulations, rules or procedures set by the clinical site.

8. Violates any part of the “Patient Bill of Rights”.


A student who demonstrates UNSAFE behavior(s) in clinical performance may be asked to leave the clinical setting.

STUDENT AS HOSPITAL EMPLOYEES
Students who choose to work for Sentara RMH, AH and PMH outside of school time are welcomed but must not interfere with the duties of the school. When working as an employee, the student may not do competencies, evaluations and objectives that count towards the school. Students must have Hospital ID and not use school identification.

CLINICAL FACILITIES
The Imaging Services Department at Sentara RMH offers student experience in and exposure to all aspects of radiography and medical imaging. Students have the opportunity to observe all modalities of medical imaging and radiation therapy. Students have the opportunity to, gain clinical experience from the Sentara RMH Medical Office Building Imaging, Sentara RMH East Market Street Health Center, Augusta Health and Valley Health/Page Memorial Hospital.

TOBACCO FREE ENVIRONMENT
Tobacco use in any building owned or leased by Sentara RMH and on the grounds and adjacent areas is prohibited. Use of tobacco and smokeless tobacco product is not permitted anywhere on the property, including sidewalks and parking areas.
**TRAVEL**
Students are responsible for transportation and costs to and from all clinical sites: Sentara RMH, Sentara RMH Medical Office Building Imaging, Sentara RMH East Market Street Health Center, Augusta Health and Valley Health/Page Memorial Hospital. Students are also responsible for transportation and costs to and from seminar and school related functions.

**MAMMOGRAPHY POLICY**
All students, male and female, will be offered the opportunity to participate in mammography clinical rotations. The program will make every effort to place a male student in a mammography clinical rotation if requested; however, the program is not in a position to override clinical setting policies that restrict clinical experiences in mammography to female students. Male students are advised that placement in a mammography rotation is not guaranteed and is subject to the availability of a clinical setting that allows males to participate in mammographic imaging procedures. The program will not deny female students the opportunity to participate in mammography rotations if clinical settings are not available to provide the same opportunity to male students.

The policy regarding student clinical rotations in mammography is based on the sound rationale presented in a position statement on student mammography clinical rotations adopted by the Board of Directors of the Joint Review Committee on Education in Radiologic Technology (JRCERT) at its April 2016 meeting. The JRCERT position statement is included as Addendum A to the program’s policy and is also available on the JRCERT Web site, [www.jrcert.org](http://www.jrcert.org), Programs & Faculty, Program Resources.

**ENERGIZED LABORATORY POLICY**
A student will not make any radiographic exposure of any kind without the supervision of a readily available ARRT certified instructor. The only exposures made in the laboratory settings will be on phantoms. Under no circumstance will human tissue be intentionally exposed to ionizing x-radiation in energized lab. The x-ray machines will only be turned on during laboratory sessions.

Under no circumstances will the students be exposed to radiation during lab. Students are not allowed to hold image receptors or phantoms during exposures. Positioning aids will be used on the phantoms to maintain positioning requirements, allowing the students to remain behind a lead barrier during all exposures. During the laboratory session, students must adhere to the following procedures:
1. Wear OSL badge
2. Utilize individual markers for every exposure
3. Must remain behind lead barrier during all exposures
4. Utilize the appropriate techniques for ALARA
5. Practice radiation shielding
6. Follow all radiation protection polices

If the student does not adhere to the above policies, a student will receive an initial warning, second offense the student will be placed on probation, and a third offense will result in dismissal from the program.
Section 4

CLINICAL GRADING
CLINICAL GRADING
The semester clinical radiography grade will be determined by the following criteria:

Evaluation Tool/

  Professionalism
  Worksheets
  Final test
  CBE’s
  Staff evaluations
  Clinical instructors’ evaluation

Professionalism - This relates to the student's attitudes, behavior and personal habits. It is a very important part of participation within the health care field.

Worksheets - Clinical objective worksheets given to the student serve a dual purpose of informing the student just exactly what is expected of them and to assure that the student has received all of the necessary information.

Final Examination – See RAD 290 Syllabus

Competency Based Evaluations (CBE’s) - The student is required to complete a specific number of CBE’s to insure continuous progress in the clinical setting. The clinical instructors will perform laboratory spot check evaluations until graduation. Once a student has completed a CBE on an examination or procedure, the student is allowed to perform that examination or procedure with indirect supervision.

Staff Evaluations - the supervising staff in each area will make an evaluation of the student's performance.

Tech Evaluations – the students evaluate the technologist they are assigned to on a weekly basis.
PROCEDURE OBJECTIVES
For routine examinations listed for the Clinical Radiography courses, the student will complete radiographic procedures using the following format:

The student will:

1. List the usual indications for the examination.
2. Describe the anatomy visualized.
3. Describe patient positioning including central ray.
4. Select the proper settings of CR/DR technical factors and adjust for patient conditions.
5. Describe patient preparation if applicable.
6. If applicable, identify the contrast media used, the dosage, method of administration, contraindications, and alternatives.
7. Name possible accessories that may be used.
8. State the technical factors and reasons for using them.
9. Explain possible technical adjustments that may be required.
10. Describe alternatives in positioning to accommodate the patient’s inability to be positioned in the normal fashion.
11. Identify respiratory requirements.
Section 5

CLINICAL OBJECTIVES & EVALUATIONS
CLINICAL PERFORMANCE OBJECTIVES FOR
STUDENTS IN RADIOLOGIC TECHNOLOGY

OBJECTIVES: The student will:

1. Use proper oral and written medical communication.
2. Demonstrate knowledge of human structure, function and pathology.
3. Anticipate and provide basic patient care and comfort.
4. Apply principles of body mechanics.
5. Perform basic mathematical functions.
6. Operate radiographic imaging equipment and accessory devices.
7. Position the patient and imaging system in performing radiographic examination procedures.
8. Modify standard positioning and procedures to accommodate for patient condition and other variables.
9. Produce quality diagnostic images.
10. Determine exposure factors to obtain diagnostic quality radiographs with minimum radiation exposure.
11. Adapt exposure factors for various patient conditions, equipment, accessories and contrast media to maintain appropriate radiographic quality.
12. Practice radiation protection for the patient, self and others.
13. Recognize emergency patient conditions and initiate first aid and basic life-support procedures.
14. Evaluate radiographic images for appropriate positioning and image quality.
15. Evaluate the performance of radiographic systems, know the safe limits of equipment operation, and report malfunctions to the proper authority.
16. Demonstrate knowledge and skills relating to quality assurance.
17. Exercise independent judgment and discretion in the technical performance of medical imaging procedures.
18. Become familiar with reception procedures and the routine schedule of the department.
19. Know the proper order in which multiple procedures on a patient should be performed.
20. Have all radiographs approved by a supervisor or radiologist before the patient is released.
21. Be truthful in matters concerning assignments and relationships with the supervising personnel.

22. Exhibit a professional attitude towards patients and other personnel.

23. Repeat radiographs only with direct supervision.

24. Perform clinical competency based examinations.

25. Evaluate and appropriately handle a variety of adverse patient conditions.

26. Gain experience with multiple trauma procedures.

27. Develop time management skills.

28. The student will identify the patient by at least two means of identification prior to performing the examination.
OBJECTIVES: The student will:

1. Perform all duties and assignments to the best of his ability as directed by his supervisor.
2. Perform procedures taught in the classroom.
3. Repeat radiographs only in the presence of a technologist.
4. Follow all instructions promptly and efficiently.
5. Maintain a courteous attitude toward all the members of the departmental staff.
6. Treat the patient courteously at all times. The patient is to be the main focus at all times and is to be handled gently and carefully.
7. Help to maintain the safety of the entire department.
8. Not smoke, eat, chew gum, or engage in talking and loitering in the clinical setting.
9. Not instruct another student or approve another student's work.
10. Direct any problems or questions concerning any procedure to a supervisor before any radiographs are taken to prevent unnecessary exposures.
    Provide appropriate radiation protection methods for both patient and practitioner.
11. Perform any task asked of him/her within his ability.
12. Cone or collimate for all exposures.
13. Place their identification number on all radiographs.
14. Properly identify required information on all radiographs.
15. Not take reports from the radiologists without approval.

EMERGENCY AND TRAUMA ROTATION

OBJECTIVES: The student will:

1. Have the opportunity to perform procedures in emergency situations and under adverse conditions.
2. Learn to adapt procedures and equipment to obtain radiographs in dealing with universal situations.
3. Provide patient care to emergency victims.
4. Be supervised by other than program personnel.
5. Have the opportunity to gain independence and confidence.
OBJECTIVES: The student will:

1. Properly dress for the surgical suite.
2. List five types of surgical procedures requiring radiology.
3. Properly identify the sterile area in the operating room.
4. Identify and give the function of the following in the operating room:
   a. Surgeon
   b. Anesthesiologist/anesthetist
   c. Scrub nurse
   d. Circulating nurse
5. Prepare the portable machine for surgery.
6. Set up the portable machine for a procedure.
7. Properly set the technical factors on the portable machine for a surgical procedure.
8. Practice proper sterile technique.
9. Operate the C-Arm during a surgical or Pain Clinic procedure.
10. Produce quality images.
11. Explain the difference between closed reduction and open reduction.
12. List 3 types of surgical procedures done requiring the C-arm.
13. Properly position patient for a urological procedure including computer set up.
14. Describe the use and purpose of the C-arm in surgical procedures.
15. Give the reason for a sponge search, and explain the mechanics of the procedure.
16. Describe how the breathing of a patient is controlled for an exposure during a surgical procedure.
17. Actively participates in three C-arm procedures and 5 other types of OR procedures.
Magnetic Resonance Safety Screening Protocol

Policy: All students enrolled in Sentara RMH’s Radiologic Technology Program are required to be properly screened prior to their entrance into the Magnetic Resonance (MR) environment for practicum assignments.

Procedure: The MR system produces a very strong magnetic field that may be hazardous to individuals entering the MR scanner room where the magnet is located if they have certain metallic, electronic, magnetic or mechanical implants, devices or objects. Therefore, prior to the assigned observational practicum rotations in the Magnetic Resonance (MR) environment, all students will be required to attend a MRI informational lecture by a MRI technologist and must complete the Sentara RMH Magnetic Resonance History/Screening form for Students. The student will sign the form acknowledging the screening process had occurred. The form will be reviewed by a MRI technologist who will sign the form as well verifying that they had reviewed the information provided by the student. The signed form will be retained in the student’s permanent file.

A student answering “yes” to any of the questions on the form will result in a conversation between program faculty and MRI technologist to determine whether the student’s entrance into the MRI scanner could be potentially harmful to the student. If it is determined that there are not any potentially harmful effects, the student will be allowed to enter. If it is determined that the issue could potentially be harmful to the student, he/she will not be allowed to enter the MRI scanner room but will have to remain in the control room and observe through the control room window. The student will still be allowed to actively participate in the examination as deemed appropriate by the MRI technologist.

Any student that is allowed to enter the MRI scanner room will be required to remove ALL metallic objects including hearing aids, dentures, partial plates, keys, beepers, cell phones, eyeglasses, hair pins, barrettes, jewelry, body piercing jewelry, watch safety pins, paperclips, money clips, credit cards, bank cards, magnetic strip cards, coins, pens, clothing with metal fasteners and clothing with metal treads prior to entering the room.

Prior to participating in the MRI practicum assignment during the Summer I semester, all students will be required to attend an educational presentation on MRI safety prepared and delivered by a MRI technologist. Students would have been presented information regarding the basic physics of MRI during RAD 112 course during the prior Spring I semesters.

No student will be permitted to restrain a patient during the completion of an exam.
The Sentara RMH Radiography Program requires students to demonstrate competency in all 39 of the mandatory radiological procedures. 32 of the 39 mandatory procedure competencies must be demonstrated on patients. The remaining 7 procedures may be simulations. The Sentara RMH Radiography Program requires the students to demonstrate competency in all 26 of the elective radiological procedures. 15 of the 26 procedures must be demonstrated on patients. The other 11 may be simulated.

<table>
<thead>
<tr>
<th>Radiologic Procedure</th>
<th>Mandatory or Elective</th>
<th>Date Completed</th>
<th>Patient or Simulated</th>
<th>Competence Verified By</th>
<th>Grade</th>
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<td>Chest and Thorax</td>
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<td>Chest AP (Wheelchair or Stretcher)</td>
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<td>Ribs</td>
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<td>Chest Lateral Decubitus</td>
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<td>SC Joints</td>
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<td>Upper Extremity</td>
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<td>Thumb/Finger</td>
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<td>Trauma: Upper Extremity (Nonshoulder)*</td>
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<td><strong>Cranium</strong></td>
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<td>Thoracic Spine</td>
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<td>Abdomen Decubitus</td>
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<td>Upper GI Series</td>
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<td>Air Contrast / Regular Enema</td>
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<td>Esophagus</td>
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<tr>
<td>C-Arm Procedure (orthopedic)</td>
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<td>C-Arm Procedure</td>
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<td><strong>Portable Studies</strong></td>
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<td>Orthopedic</td>
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* Trauma is considered a serious injury or shock to the body. Modifications may include variations in positioning, minimal movement of body part, etc.

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<tr>
<th>Radiologic Procedure</th>
<th>Mandatory or Elective</th>
<th>Date Completed</th>
<th>Patient or Simulated</th>
<th>Competence Verified By</th>
<th>Grade</th>
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<tr>
<td><strong>Pediatrics (age 6 or younger)</strong></td>
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<td>Chest Routine</td>
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<td>Upper Extremity</td>
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<td>Abdomen</td>
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<td>Portable Study (Infant Chest Newborn)</td>
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<td><strong>Geriatric Patient (age 65 or older)</strong></td>
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<td>Chest Routine</td>
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<th>Patient or Simulated</th>
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<tr>
<td>(The activities should be performed on patients; however, simulation is acceptable if the state or institutional regulations prohibit candidates from performing the procedures on patients.)</td>
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<tr>
<td>CPR / AED</td>
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<tr>
<td>Vital signs (blood pressure, pulse, respiration, temperature, pulse oximetry)</td>
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<td>Misc. Portables (orthopedics)</td>
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<td>Miscellaneous</td>
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**TOTAL:**

- Pediatric (6 & Under)
- Geriatric (65 & Over)
DIRECT AND INDIRECT SUPERVISION

SUPERVISION OF STUDENT IN CLINICAL AREAS

Until the student achieves the required competency in a given area or on a given examination, all clinical experience will be directly supervised by qualified radiographers. A clinical competency list is located at all clinical sites.

Direct supervision is:

1. A qualified radiographer reviews the request in relationship to the student’s achievements and abilities;

2. A qualified radiographer evaluates the patient’s condition in relation to the student’s achievements, abilities and knowledge;

3. A qualified radiographer is present during the conduct of the examination; and

4. A qualified radiographer reviews and approves the radiographs.

Students shall not take the responsibility or the place of staff technologists. After demonstrating competency, the student may be permitted to perform procedures with indirect supervision.

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

Immediately available is defined as a qualified radiographer is in the department or on the floor/wing and can be summoned immediately for assistance.

Students are not to go on portables or to surgery by themselves nor are they to be left in the radiography department alone.

With indirect supervision, the requisition and patient are to be evaluated by a qualified radiographer. The radiographer makes a decision as to whether the student is capable of doing the exam or procedure with indirect supervision.

Upon completion of the exam or procedure, all radiographs must be reviewed and approved by a qualified radiographer before the patient leaves.

Students are responsible to adhere to this policy. Clinical instructors are responsible to see that it is enforced.

Failure to adhere to this policy, not only jeopardizes liability insurance coverage for the students, but also will result in disciplinary action to the student.

Repeating of radiographs will be done only in the presence of a qualified technologist. All repeated radiographs are to be documented by the student and initialed by the technologist.
Competency-Based Clinical Evaluation System for Student Radiographers

EVALUATION OF PROFESSIONAL ETHICS AND ATTITUDES

<table>
<thead>
<tr>
<th>CRITERIA FOR EVALUATION</th>
<th>The student exhibits:</th>
<th>-2</th>
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<tbody>
<tr>
<td>1.</td>
<td>Exemplifies respect for SRMH School of Radiologic Technology staff</td>
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<tr>
<td>2.</td>
<td>Student accepts constructive criticism from SRMH School of Radiology staff.</td>
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<tr>
<td>3.</td>
<td>Student adheres to all rules and regulations set forth in the handbook.</td>
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<tr>
<td>4.</td>
<td>Student is punctual.</td>
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<tr>
<td>5.</td>
<td>Student notifies staff of absence or tardiness.</td>
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<tr>
<td>6.</td>
<td>Student maintains a regular attendance status.</td>
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<tr>
<td>7.</td>
<td>Student wears appropriate uniform.</td>
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<tr>
<td>8.</td>
<td>Student maintains clean and well-kept hair.</td>
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<tr>
<td>9.</td>
<td>Student wears name badge and radiation monitoring device.</td>
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**Total points deducted**

**Grade (100-points deducted)**

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**Clinical Instructor Evaluation Grade**

**Clinical Documents Grade**

**Grade (50%)**

Instructor: _________________________   Student: _________________________

Instructor: _________________________   Date: ___________________________

Instructor: _________________________      Revised 7/16
# CURRICULUM

## FALL SEMESTER I

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<thead>
<tr>
<th>Number</th>
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<tbody>
<tr>
<td>RAD 105</td>
<td>Introduction to Radiology &amp; Protection</td>
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<tr>
<td>RAD 111</td>
<td>Radiologic Science I</td>
<td>4</td>
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<tr>
<td>RAD 121</td>
<td>Radiographic Procedures I</td>
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<tr>
<td>RAD 130</td>
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**SEMESTER TOTAL** 14

## SPRING SEMESTER I

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<td>RAD 131</td>
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<td>RAD 106</td>
<td>Human Disease and Radiography</td>
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**SEMESTER TOTAL** 15

## SUMMER SEMESTER I

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<td>RAD 231</td>
<td>Advanced Clinical Procedures I</td>
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**SEMESTER TOTAL** 6

## FALL SEMESTER II

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<tr>
<td>RAD 205</td>
<td>Radiation Protection and Radiobiology</td>
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<tr>
<td>RAD 215</td>
<td>Correlated Radiographic Theory</td>
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<tr>
<td>RAD 232</td>
<td>Advanced Clinical Procedures II</td>
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<tr>
<td>RAD 246</td>
<td>Digital Radiography</td>
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<tr>
<td>RAD 262</td>
<td>Cross Sectional Anatomy/Image Analysis</td>
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**SEMESTER TOTAL** 16

## SPRING SEMESTER II

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<td>RAD 255</td>
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<td>RAD 266</td>
<td>Radiologic Sciences III</td>
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**SEMESTER TOTAL** 15
Section 6

SYLLABI
COURSE TITLE: Introduction to Radiology, Protection, & Patient Care
COURSE NUMBER: RAD 105
CREDITS: 2
CLOCK HOURS: 30 hours
PREREQUISITES: Admission to School of Radiologic Technology

COURSE DESCRIPTION: An introduction to the career of Radiologic Technology, its history and its role in healthcare delivery. Basic medical terminology, radiation protection, radiographic equipment, radiologic procedures, exposure factors, and film processing are discussed. Professional ethics and legal responsibilities are introduced.

EVALUATION TECHNIQUES: Quizzes
Tests
Participation

USE OF MEDIA AND RESOURCES:

Worksheets, Overheads, and Videos
Text:
*Adler, Carlton; Introduction to Radiography and Patient Care, 6th Edition

COURSE OBJECTIVES: The student will:
1. Name and describe the function of each member of the health care team and/or health care professional.
2. Describe relationships and functions of each department within a hospital.
3. Define health and the basic terms in radiology.
4. Name the types of hospitals and their functions.
5. Identify national, state and local organizations for radiographers.
COURSE OBJECTIVES (CONTINUED):
6. Discuss career advancements and opportunities for radiographers.
7. Name and describe the types of administration within a hospital.
8. Identify accrediting and credential process and agencies.
9. Identify types and uses of radiographic equipment.
10. Discuss ethical and legal considerations.
11. Name the basic exposure factors.
12. Discuss basic principles of radiation protection for self, staff, and patients.
13. Define malpractice and the elements necessary for a claim.
14. Identify the types of medical doctors and other health professionals.
15. Identify the principle historical developments in radiology, hospitals, nursing and medicine (health).
16. Identify the necessary information on an x-ray requisition including consent forms.
17. Discuss basic safety considerations for self and patients in physically handling patients.
18. Spell and define medical terms pertinent to radiology and diagnosis.

COURSE CONTENT:
- Identification of Health Care Professionals
- Hospital Management Structure
- Basic Terms of Medicine and Radiology
- Professional Organizations
- Career Ladders
- Accrediting Agencies
- Ethics
- Legal Responsibilities
- Basic Radiation Protection
- History
- Flow Charts
- Identification of Equipment and Procedures in Radiology
- Basic Math and Elementary Algebra
- Patient Bill of Rights
- Medical Terminology

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Radiologic Science I
COURSE NUMBER: RAD 111
CREDITS: 4
CLOCK HOURS: 60 hours
PREREQUISITES: RAD 105

COURSE DESCRIPTION: The student will learn the basic concepts of atomic structure, electricity, electromagnetism, electromagnetic spectrum, and the energy and energy transformation required in the production of radiation. Discussion of the circuitry common to most radiographic equipment and the methods of modifying an x-ray beam for radiographic purposes.

EVALUATION TECHNIQUES: Workbook Exercises, Quizzes, Tests, and Final Examination

USE OF MEDIA AND RESOURCES:

Text:
*Radiologic Science for Technologist; Bushong; 10th Edition
Radiologic Science - Workbook and Laboratory Manual; Bushong, 10th Edition
Digital Radiography and PACs; Carter, 2nd Edition

COURSE OBJECTIVES: After lecture, review of concepts and completion of worksheets, the student will:

1. Identify symbols used in an x-ray circuitry schematic.
2. Distinguish types of transformers and generators and explain their functions.
3. Summarize wave rectification.
COURSE OBJECTIVES (CONTINUED):
4. Explain the conditions necessary for x-ray production and outline the controlling factors.
5. Identify, define and calculate various forms of energy.
6. Identify and explain the components of matter and the atom.
7. Interpret the periodic table.
8. Define terms relating to ionization and transitional elements.
9. Explain the types of radioactivity.
10. Explain wave and particle theory.
11. Explain the Inverse Square Law and its application to radiation.
12. Know the basic concepts of electricity, electrostatics, magnets, magnetism, and electromagnetism.
14. Know the components and wavelengths of the electromagnetic spectrum.
15. Solve problems utilizing the 15% rule.
16. Name the major components of the x-ray tube and their function in the production of radiation;
17. Explain how MAS is calculated.
18. Explain the basic operation of the x-ray tube.
19. Define half value layer and describe its application in terms of radiation output and patient dosage.
20. List and differentiate the x-ray interactions with matter.
21. Describe factors affecting the quality and quantity of an x-ray beam.
22. Identify the types of radioactivity and explain the atomic structure of radioactive structure and decay.

COURSE CONTENT:

Atomic Structure
Electricity
Transformers/Autotransformers
Rectification
Radioactivity
Types of Radiographic Machines
Production of X-ray
Basic X-ray Machine Circuits
Electron-Target Interactions
X-ray Interactions and Attenuation
Magnetism
Electromagnetism
Electromagnetic Spectrum
ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Radiographic Procedures I

COURSE NUMBER: RAD 121

CREDITS: 3 credits lecture, 1 credit lab

CLOCK HOURS: 45 hours lecture and 45 hours lab

PREREQUISITES: BIO 141, BIO 142, RAD 105

COURSE DESCRIPTION: Divided into two concurrent components. Radiologic Anatomy, which introduces the student to the architectural plan of the body with emphasis on the structure and function of the skeleton and radiographic positioning terminology. This component will focus on the thoracic and abdominal cavities, bone development, upper and lower extremities, shoulder girdle, and bony thorax. The appearance of these structures on a radiograph will be emphasized. The second component is radiographic positioning which covers the manipulation of radiographic equipment, accessories, and the patient to produce the standard radiographic images of each body part.

EVALUATION TECHNIQUES: Tests 50%
Lab Examination 25%
Final Examination 25%

USE OF MEDIA AND RESOURCES:
Text:
Radiographic Pathology for Technologists; Mace, 6th Edition

COURSE OBJECTIVES: The student will:
1. Define medical terms relating to human anatomy and patient positioning.
2. Name the body cavities, regions, and basic body habitus.
3. Identify the structures within the chest, abdomen, upper and lower extremities, shoulder girdle, and bony thorax, on a diagram and radiograph.
COURSE OBJECTIVES (CONTINUED):
4. Evaluate images for proper technical factors and correct positioning.
5. Simulate in a lab setting, the positions for radiographing the chest, abdomen, upper and lower extremities, shoulder girdle, and bony thorax.
6. In the lab setting, make phantom exposures using proper measurements and technique selection.

COURSE CONTENT:

Body Cavities: Quadrant Regions
Radiographic Positioning Terminology

Thoracic Cavity
Pathway of Air
Chest structures – Contents
Projections and Central Ray
Appearance on a Radiograph

Abdominal Cavity
Abdominal Organs
Body Habitus
Projections and Central Ray
Appearance on Radiograph

Upper Extremities
Anatomy and Positioning of Finger, Hand, Wrist, Forearm, AC Joints, Humerus, Shoulder, Elbow, Thumb, Special Projections and Their Appearance on a Radiograph

Lower Extremities
Anatomy and Positioning of Toes, Foot, Ankle, Tib-Fib, Knee, Os Calcis, Patella and Their Appearance on a Radiograph
Special Projections

Bony Thorax
Anatomy and Positioning of the Ribs, Sternum, Clavicle, and SC Joints
ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Elementary Clinical Procedures I
COURSE NUMBER: RAD 130
CREDITS: 2
CLOCK HOURS: 14 hours per week/2 days per week
PREREQUISITES: Concurrent with RAD 121

COURSE DESCRIPTION: To acquaint the student with the hospital environment through supervised participation of theories presented in the classroom. Emphasis on patient care, protocol in the hospital and the radiology department, identification of radiographic equipment and supplies, office and reception procedures, and general diagnostic areas.

EVALUATION TECHNIQUES:
- Completed Weekly Clinical worksheets 33%
- Clinical instructors’ evaluation 33%
- Completed Weekly Staff evaluations 33%

USE OF MEDIA AND RESOURCES: Demonstration
Active participation
Film critique

COURSE OBJECTIVES: The student will:

1. Demonstrate proper body mechanics in transporting, positioning and moving patients.
2. Provide quality patient care physically, mentally and emotionally.
3. Properly describe the flow of an inpatient and outpatient through the radiology department along with the appropriate paper work.
COURSE OBJECTIVES (CONTINUED):
4. Describe the flow process of patient images in the radiology department.
5. Identify the diagnostic radiographic equipment within the department explaining basic uses and functions of each.
6. Demonstrate professionalism through appearance, communication with departmental personnel, physicians, and patients, and personal mannerisms in handling self and patients.
7. Adapt to routine practices within the clinical setting.
8. Become familiar with various radiographic positioning devices.
9. Adhere to the dress code, departmental and institutional rules, regulations and policies.
10. Evaluate information on the patient requisition relating any necessary information to the patient’s chart.
11. Meet the specified objectives of each clinical assignment.
12. Successfully complete worksheets for each clinical assignment.
13. Perform radiographic procedures as presented in RAD 121 and while under direct supervision.
14. Keep clinical experience records up-to-date.
15. Assist in the selection of radiographic exposure factors.
16. Identify quality factors on images.

COURSE CONTENT: Rotation in:
- fluoroscopy
- general radiography
- reception
- transport
- portable/surgery
- nursing
- orthopedics

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Radiographic Procedure Labs

COURSE NUMBER: RAD 121, RAD 221

CREDITS: 1

CLOCK HOURS: 45

PREREQUISITES: Concurrent with Lecture

COURSE DESCRIPTION: Radiographic laboratory is to provide the student with experience in positioning, role playing as radiographer and patient, computer program application, and film critique.

EVALUATION TECHNIQUES: Worksheets
Lab tests
Projects

USE OF MEDIA AND RESOURCES:
Radiographic table and x-ray tube
Radiographic films
Automatic film processor (Main Radiology)
Computer programs
Digital Imaging

COURSE OBJECTIVES:
The student in a laboratory setting will:

1. Observe the proper positioning and patient care for designated radiographer procedures;

2. Demonstrate proper positioning, selection of correct exposure factors, and patient care for designated radiographic examinations. This may be accomplished through testing or lab participation.
COURSE OBJECTIVES (CONTINUED):

3. Identify and label on images related anatomy, pathology and structures of the radiographic procedures;

4. Participate in film critique for radiographic procedures, and;

5. With the assistance of the lab instructor, successfully completes assigned laboratory worksheets.

COURSE CONTENT: Demonstration and application to correlate with lecture material weekly.

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Radiologic Science II

COURSE NUMBER: RAD 112

CREDITS: 4

CLOCK HOURS: 60 hours

PREREQUISITES: RAD 111

COURSE DESCRIPTION: An introduction to the prime factors of radiographic exposure and its effect on the radiographic image. Discussion of the factors affecting radiographic definition and their influence on radiographic quality. The adjustment of the prime exposure factors and how they affect radiographic quality are presented in classroom discussion and in laboratory demonstration. Students will be involved in solving technical problems, making technical adjustments, film critique, film processing, and image manipulation. Discussion of digital, fluoroscopic, and image intensification topics are discussed. Information regarding basic physics and safety of MRI / CT is included.

EVALUATION TECHNIQUES: Tests
Exam
Laboratory Exercises
Worksheets

USE OF MEDIA AND RESOURCES:
Text:
Radiologic Science for Technologists; Bushong, 10th Edition
Radiologic Science Workbook and Laboratory Manual; Bushong, 10th Edition
Digital Radiography and PACs; Carter, 2nd Edition

COURSE OBJECTIVES: The student will be able to:
1. Solve problems utilizing the inverse square law.
2. Solve problems utilizing the 15% rule.
3. Identify the anatomical and pathological conditions effecting radiographic quality.
4. Explain how MAS is calculated.
5. Name the basic factors of radiographic quality.

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COURSE SYLLABUS

COURSE OBJECTIVES (CONTINUED):
7. Define filtration and name the types and kinds of filters used in radiography.
8. Name the controlling and influencing factors for radiographic definition.
9. Name the types and uses of beam restricting devices.
10. Perform radiographic experiments as assigned.
11. Define and name the controlling and influencing exposure factors of the following:
    a. radiographic density
    b. radiographic contrast
    c. radiographic distortion: size and shape
    d. radiographic detail
12. Differentiate between subject contrast and film contrast.
13. Solve problems of exposure factor adjustments through KV, MAS, distance, grids, film and screens.
14. Define HVL and describe its application in terms of radiation output and patient dosage.
15. Define photographic effect and solve problems utilizing all factors.
16. Name the types, speeds and influencing factors of intensifying screens and radiographic films.
17. Name the factors of material & geometric unsharpness and their effect on detail.
18. Solve problems dealing material, geometric and total unsharpness.
19. Name the types of technique charts and how to formulate each.
20. Give the conversion factors for the use of various grids and grid ratios, screens and films.
22. Mobile Radiography(portables ,OR, C-arm)
23. Interpret the findings from H & D curves relating to contrast, latitude and film speed.
24. Calculate problems dealing with radiographic magnification.
25. Define radiographic distortion relating to both shape and size, and identify the factors affecting distortion.
26. Perform radiographic experiments illustrating the effects of the radiographic exposure factors on radiographic quality.
27. Define and name the purpose of grids.
29. Define the “Heel Effect” and how it affects radiographic quality.
30. Introduction into Digital Radiography.
COURSE OBJECTIVES (CONTINUED):
31. Digital Imaging Characteristics
32. Digital Imaging Receptors
33. Digital spatial resolution (sampling frequency, DEL, receptor size and matrix size)
34. Image signal (exposure related)
35. Digital Image Display Informatics
36. Describe the types of silver recovery systems.
37. Explain the operation of an automatic film processor and the functions of each section.
38. Describe the design and needs of radiographic darkroom.
40. Identify and label the fluoroscopic room and its components.
41. Explain the operation of the image intensifier, the TV camera, and TV monitor for fluoroscopic and surgical procedures.
42. Explain the concepts of tomographic motion blur, tomographic angle, and section thickness.

COURSE CONTENT: Radiographic Exposure Factors: KV, MAS, distance
Secondary Radiation
Filtration
Beam Restriction
Anatomical and Pathological Conditions and their Effect on Radiographic Quality
15% Rule
Inverse Square Law
Components of Radiographic Quality and the Controlling and Influencing Factors of Each Contrast
Density
Detail
Problem Solving - Adjusting Technical Factors
HVL and Its Application
Radiographic Experiments Illustrating the Effects of the Exposure Factors on Radiographic Quality
Exposure Limits and Cooling Charts
Influences of Intensifying Screens and Radiographic Film
Photographic Effect
Conversion Factors for Screens-Film Combinations
Characteristic Curves
Development of Exposure Charts
COURSE CONTENT: Radiographic Film Processing
Tomography
Image Intensification

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Radiologic Science & Patient Care Procedures

COURSE NUMBER: RAD 125

CREDITS: 2

CLOCK HOURS: 30 hours

PREREQUISITES: RAD 121

COURSE DESCRIPTION: This course provides the student with the skills necessary for proper patient care. A focus on communications, patient needs and handling for radiographic procedures, patient care procedures in specific situations, and basic first aid pertinent to radiography procedures.

EVALUATION TECHNIQUES: Chapter Examinations
Class Participation
Demonstrations
Final Examination

USE OF MEDIA AND RESOURCES:

Text:
*Adler, Carlton; Introduction to Radiologic Sciences and Patient Care; 6th Edition

COURSE OBJECTIVES: The student will be able to:

1. Define terms associated with radiologic technology.
2. Discussion of career opportunities in radiologic technology.
3. Explanation of RMH organization and radiology department.
4. Discuss methods of assessment in the clinical education process.
5. Discussion of different methods of communication and patient/student interactions.
COURSE SYLLABUS

6. Distinguish between subjective and objective data.
7. Demonstrate principles of body mechanics applicable to patient care, transfer, comfort and safety.
8. Identify specific patient considerations, conditions and procedures.
9. Demonstrate immobilization techniques.
10. Discuss vital signs and oxygen therapy.
11. Define terms related to infection control, identify basic infectious agents, sources of nosocomial infections and environmental control.
12. Discuss principles of aseptic techniques and non-aseptic techniques.
13. Discuss signs of various medical emergencies.
14. Identify principles of drug administration and routes of administration.
15. Identify ethical analysis, management of patient records, quality assessment and patient confidentiality.

COURSE CONTENT:  
Introduction to and General Patient Care  
Specific Nursing Procedures  
Emergency Care Procedures  
Infection Control  
Contrast Medias and Administration

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Elementary Clinical Procedures II

COURSE NUMBER: RAD 131

CREDITS: 3

CLOCK HOURS: 14 hours per week/2 days per week

PREREQUISITES: RAD 121

COURSE DESCRIPTION: To acquaint the student with the hospital environment through supervised participation of theories presented in the classroom. Emphasis on patient care, protocol in the hospital and the radiology department, identification of radiographic equipment and supplies, office and darkroom procedures, and general diagnostic areas.

EVALUATION TECHNIQUES:
- Completed Weekly Clinical worksheets 33%
- Clinical instructors’ evaluation 33%
- Completed Weekly Staff evaluations 33%

USE OF MEDIA AND RESOURCES:
- Demonstration
- Active participation
- Film critique

COURSE OBJECTIVES: The student will:

17. Demonstrate proper body mechanics in transporting, positioning and moving patients.
18. Provide quality patient care physically, mentally and emotionally.
19. Properly describe the flow of an inpatient and outpatient through the radiology department along with the appropriate paper work.
COURSE OBJECTIVES (CONTINUED):
20. Describe the flow process of patient images in the radiology department.
21. Identify the diagnostic radiographic equipment within the department explaining basic uses and functions of each.
22. Demonstrate professionalism through appearance, communication with departmental personnel, physicians, and patients, and personal mannerisms in handling self and patients.
23. Adapt to routine practices within the clinical setting.
24. Become familiar with various radiographic positioning devices.
25. Adhere to the dress code, departmental and institutional rules, regulations and policies.
26. Evaluate information on the patient requisition relating any necessary information to the patient’s chart.
27. Meet the specified objectives of each clinical assignment.
28. Successfully complete worksheets for each clinical assignment.
29. Perform radiographic procedures as presented in RAD 121 and RAD 122 while under direct supervision.
30. Keep clinical experience records up-to-date.
31. Assist in the selection of radiographic exposure factors.
32. Identify quality factors on images.

COURSE CONTENT: Rotation in: fluoroscopy general radiography reception transport portable/surgery nursing orthopedics

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Human Diseases & Radiography

COURSE NUMBER: RAD 106

CREDITS: 4

CLOCK HOURS: 60 hours lecture (Fall I & Spring 1 Semester)

PREREQUISITES: BIO 141, BIO 142, RAD 105

COURSE DESCRIPTION: Introduces the various diseases and anomalies that may be manifested on the radiograph. Presents diseases related to the various body systems. Places emphasis on the relationship of the disease process and radiographic density.

EVALUATION TECHNIQUES:
- Tests 75%
- Final Examination 25%

USE OF MEDIA AND RESOURCES:
- Radiographic Pathology for Technologists; Mace; 6th Edition

COURSE OBJECTIVES: The student will:
1. Define medical terms relating to human anatomy and patient positioning.
2. Identify the structures within the chest, abdomen, upper and lower extremities, shoulder girdle, and bony thorax, on a diagram and radiograph.
   a) Describe pathological conditions and their relationships to radiographic procedures.
   b) Describe complications and prognosis for classifications of tumors.
   c) List and define systematic classifications of disease.
   d) Describe the healing process.
   e) Describe the effects of disease on radiological procedures and techniques.
COURSE OBJECTIVES (CONTINUED):
3. Evaluate images for proper technical factors according to pathological conditions.

COURSE CONTENT:
- General Principles of Pathology
- Pathologies of the Respiratory System
- Pathologies of the Abdominal Cavity
- Pathology of the Skeletal System
- Pathology of the Hepatobiliary System
- Pathology of the Abdominal & Gastrointestinal System
- Pathology of the Urinary System
- Pathology of the Reproductive System
- Pathology of the Cardiovascular System
- Pathology of the Hemopoietic System
- Pathology of the Central Nervous System
- Pathology of the Endocrine System
- Traumatic Disease

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Radiographic Procedures II

COURSE NUMBER: RAD 122

CREDITS: 4

CLOCK HOURS: 45 hours lecture and 45 hours lab

PREREQUISITES: RAD 121 & Concurrent with RAD 131

COURSE DESCRIPTION: Continues procedures for positioning the patient’s anatomical structures relative to x-ray beam and image receptor. Emphasizes procedures for routine examination of the pelvic girdle, vertebral column, skull, contrast studies of internal organs, and special procedures employed in the more complicated investigation of the human body.

EVALUATION TECHNIQUES:
- Tests: 50%
- Final Examination: 25%
- Labs: 25%

USE OF MEDIA AND RESOURCES:

Text:
- Radiographic Pathology for Technologists; Mace, 6th Edition

COURSE OBJECTIVES: The student will:
1. Identify the structures of the digestive, urinary, and biliary systems, pelvic girdle, vertebral column, skull, and spinal column on a diagram and radiograph.
2. Simulate in a laboratory the positions for radiographing the vertebral column, skull, pelvic girdle, and digestive urinary and biliary systems.
3. Evaluate images for proper technical factors and correct positioning.
COURSE OBJECTIVES (CONTINUED):
4. In the lab setting, make phantom exposures, using proper measurements and technique selection.
5. Distinguish the difference between typical vertebrae in each region of the spine.

COURSE CONTENT: Anatomy & Positioning of:
- Pelvic Girdle
- Spinal Column
- Biliary System
- Digestive System
- Urinary System
- Skull/Headwork

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class is encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
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COURSE SYLLABUS

Instructor’s Signature

Date

COURSE TITLE: Radiographic Procedure Labs

COURSE NUMBER: RAD 121, RAD 122

CREDITS: 1

CLOCK HOURS: 45

PREREQUISITES: Concurrent with Lecture

COURSE DESCRIPTION: Radiographic laboratory is to provide the student with experience in positioning, role playing as radiographer and patient, computer program application, and film critique.

EVALUATION TECHNIQUES: Worksheets  
Lab tests  
Projects

USE OF MEDIA AND RESOURCES:
Radiographic table and x-ray tube
Radiographic films
Automatic film processor (Main Radiology)
Computer programs
Digital Imaging

COURSE OBJECTIVES:
The student in a laboratory setting will:

a. Observe the proper positioning and patient care for designated radiographer procedures;

b. Demonstrate proper positioning, selection of correct exposure factors, and patient care for designated radiographic examinations. This may be accomplished through testing or lab participation.
COURSE OBJECTIVES (CONTINUED):

- Identify and label on images related anatomy, pathology and structures of the radiographic procedures;
- Participate in film critique for radiographic procedures, and;
- With the assistance of the lab instructor, successfully completes assigned laboratory worksheets.

COURSE CONTENT: Demonstration and application to correlate with lecture material weekly.

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Advanced Clinical Procedures I
COURSE NUMBER: RAD 231
CREDITS: 6
CLOCK HOURS: 32 hours per week
PREREQUISITES: RAD 131

COURSE DESCRIPTION: This course is a continuation of RAD 131 with an introduction to surgery, trauma and specialty areas. This is a period for the student to work more independently thus gaining self-confidence. Basic radiographic procedures are demonstrated with competency testing.

EVALUATION TECHNIQUES:
- Clinical instructor's evaluation 25%
- Competency based evaluations 25%
- Completed Weekly Staff evaluations 25%
- Completed Worksheets 25%

COURSE OBJECTIVES: The student will:
1. Continue to demonstrate the objectives from the previous Clinical Radiography course.
2. Begin to demonstrate performance competency in radiographic procedures.
3. Select proper radiographic exposure factors.
4. Evaluate radiographic image quality.
5. Repeat unsatisfactory images with assistance.
6. Perform radiographic procedures with indirect supervision on areas where performance competency has been demonstrated.
COURSE OBJECTIVES (CONTINUED):
7. Identify radiographic equipment and the uses of each in surgery and on portables.
8. Become acquainted with the surgical suite and radiographic procedures done there.
9. Adapt radiographic procedures and techniques to portable radiography.
10. Meet specified objectives for specialty area rotations.

COURSE CONTENT: Rotation in: fluoroscopy
general radiography
trauma
portable/surgery
CT
MRI
Radiation Therapy
Special Procedures
Nuclear Medicine
PET
Ultrasound
Orthopedics

USE OF MEDIA: Demonstration
Active participation
Film critique

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Radiation Protection & Radiobiology

COURSE NUMBER: RAD 205

CREDITS: 3

CLOCK HOURS: 45 hours

PREREQUISITES: RAD 112


EVALUATION TECHNIQUES: Tests

Final Exam

USE OF MEDIA AND RESOURCES:
Text:
* Radiation Protection in Medical Radiography; 7th Edition; Statkiewicz, Visconti & Ritenour
Radiographic Science for Technologist, Bushong; 10th Edition;

COURSE OBJECTIVES: The student will:
1. Explain the need for radiation protection procedures.
2. Identify the various sources of natural background ionizing radiation and the different sources of manmade, or artificial, ionizing radiation.
3. Explain the responsibility of radiation protection in the field of radiology.
4. Define terms pertinent to radiation protection.
5. Identify interactions of radiation as it passes through matter.
6. Identify the effects of radiation on patient, film, and radiographer.
COURSE OBJECTIVES (CONTINUED):
7. Determine the dose equivalent and absorbed dose for different ionizing radiations.
8. Explain the results of biological damage resulting from irradiation of human tissue.
9. Explain the ALARA concept and the limits for occupational workers.
10. Identify the agencies dealing with radiation exposure and protection.
11. State the formula determining MPD and solve problems dealing with MPD.
12. Define and explain terms relating to radiation biology.
13. List the three levels of biological damage to living cells and systems as a result of ionizing radiation.
15. Explain how patient dosage can be reduced during exposure utilizing beam restricting, filtration, and shield devices.
16. State and explain the inverse square law.
17. Explain the result of patient exposure with screen and film speed variations.
18. Identify the various radiation protection measures.

COURSE CONTENT:
Basis for Radiation Protection
Production of X-Radiation
Ionizing Radiation
Interactions of Radiation with Matter
Biologic Effects
Radiobiology
Early and Late Effects of Radiation
Health Physics
Protecting the Radiographer
Protecting the Patient

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Correlated Radiographic Theory

COURSE NUMBER: RAD 215

CREDITS: 4

CLOCK HOURS: 60 hours plus mandatory labs

PREREQUISITES: RAD 121; RAD 122

COURSE DESCRIPTION: This course provides the student with skills for proper patient care and radiographic positioning of the trauma and pediatric patient and surgical procedures.

EVALUATION TECHNIQUES: Class participation
Demonstrations
Tests
Final examination

USE OF MEDIA AND RESOURCES: Overheads
Powerpoints

Text:
Introduction to Radiologic Sciences and Patient Care; Adler, Carlton, 6th Edition
Radiographic Pathology for Technologists; Mace, 6th Edition

COURSE OBJECTIVES: The student will:
1. Define terms associated with the trauma, pediatric and surgical patient.
2. List the sequence of routine procedures such as trauma, pediatric, surgical patients, etc.
3. Describe the possible adaptations in positioning and techniques for trauma, pediatric and surgical procedures and diagnostic procedures.
COURSE OBJECTIVES (CONTINUED):
4. Identify different methods of immobilization.
5. Describe methods of radiation protection for trauma, pediatric and surgical procedures.
6. Name the possible complications associated with trauma, pediatric and surgical procedures, etc. and the special considerations for each case.

COURSE CONTENT:  Pediatric Radiography
Trauma Radiography of the Extremities, Spine & Skull
Surgical Radiography
Diagnostic Radiography
Pathology
Patient Care

ATTENDANCE:  Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Advanced Clinical Procedures II

COURSE NUMBER: RAD 232

CREDITS: 4

CLOCK HOURS: 21 hours per week

PREREQUISITES: RAD 231

COURSE DESCRIPTION: This semester the student is provided with the opportunity to operate more independently in all areas of basic radiography. The student will begin to rotate through some of the specialized areas. Competency testing continues with development in proficiency.

EVALUATION TECHNIQUES:
- Clinical instructor’s evaluation 25%
- Competency based evaluations 25%
- Completed Staff evaluations 25%
- Completed Worksheets 25%

USE OF MEDIA AND RESOURCES:
- Demonstration
- Active participation
- Film critique

COURSE OBJECTIVES: The student will:

1. Continue to demonstrate the objectives of the previous clinical radiography courses.
2. Demonstrate performance competency in radiography of the skull and of contrast media studies.
COURSE OBJECTIVES (CONTINUED):
3. Meet the specified clinical objectives of each clinical assignment.
4. Continue to develop increased speed, accuracy, and confidence in performing radiographic procedures.
5. Begin to recognize pathological conditions and findings on images as demonstrated by the Radiologist within the reading area.
6. Recognize and apply knowledge to pathological conditions that affect radiographic technique and procedures.
7. Continue to work on completing competency based evaluations.

COURSE CONTENT: Rotation in: fluoroscopic rooms
general radiography
portables, surgery
trauma
special procedures
heart catheterization
orthopedics

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Digital Radiography

COURSE NUMBER: RAD 246

CREDITS: 4

CLOCK HOURS: 60 hours

PREREQUISITES: RAD 112, RAD 231

COURSE DESCRIPTION: This course studies all aspects of digital radiography including CR/DR, equipment, and terminology. Students will participate in evaluation and critique of medical images. Discussions will include the topics of; equipment, physical settings, contrast agents, positioning, and procedures. The student will also participate in a unit on critical thinking issues.

EVALUATION TECHNIQUES:
- Tests
- Final Examination
- Quizzes
- Research Paper/Case Study
- Clinical Reports from Modality Rotations

USE OF MEDIA AND RESOURCES:
- Various Journal Articles
- Audio-Visual
- Handouts
- Guest Speakers

Text:
- Applied Angiography for Radiography; Laudicina
- Concepts in Medical Radiographic Imaging; Tortorici
- Critical Thinking Workbook for Radiographers; Towsley
- Fundamentals of Special Radiographic Procedures; Snopek, 5th Edition
USE OF MEDIA AND RESOURCES (CONTINUED):
Radiographic Science for Technologists; Bushong; 10th Edition
Digital Radiography and PACs; Carter

COURSE OBJECTIVES: The student will:
1. Recognize obstacles to critical thinking.
2. Raise questions of a moral and ethical professional nature.
3. Integrate critical thinking, professionalism, and problem solving into the clinical environment.
4. Display empathy and concern for patients, and peers through role-playing.
5. Discuss the differences between soft tissue radiography and conventional radiography.
6. Discuss the advantages of mammographic compression.
7. Describe the tube/target composition, focal spot size and kVp, image receptors and tube filtration used in mammography.
8. Define the types of special procedures naming the parts of the anatomy involved and why each is done.
9. Give the steps to the various approaches to special procedures.
10. Identify equipment and accessory items in the special procedures suite.
11. Have a basic knowledge of DSA.
12. Identify the specific procedures done and any abnormalities found.
13. Explain the Seldinger approach.
14. Explain the importance of pre, during and post angiogram care.
15. Identify on a drawing the important organs, arteries and veins associated with angiographic studies.
16. Demonstrate opening of sterile packages, trays, proper gowning and gloving procedures for angiography.
17. Identify the most common contrast medias used with each procedure.
18. List the common contrast media reactions.
19. Relate the research and development of digital imaging.
20. Discuss the components of a digital radiographic/fluoroscopy system and its functions.
21. Explain picture archiving and teleradiography systems.
22. Discuss the concepts of transaxial tomography, translation and reconstruction of images.
COURSE OBJECTIVES (CONTINUED):

24. Describe CT image characteristics of image matrix and CT numbers.
25. Relate the CT system components and their functions.
26. Discuss CT image quality as it relates to spatial resolution, contrast resolution, system noise, linearity and spatial uniformity.
27. Describe the sources of the magnetic fields within the body that are used during MRI.
28. Describe the components of an MRI unit, including the stationary magnet, gradient and RF coils, table, and computer consoles.
29. Explain how MRI image contrast is controlled.
30. Describe the use of contrast agents in MRI.
31. Discuss safety measures for protection of patients and staff who approach the magnetic field.
32. Demonstrate continuing score improvement on the development tests.
33. PSP(photo-stimulable phosphor)
34. Flat panel detectors(direct and indirect)
35. CR plate eraser/equipment cleanliness
36. Digital Imaging Receptor Systems/Artifacts/Malfunctions
37. Digital Imaging Processing
38. Image Display characteristics

COURSE CONTENT:  
Critical Thinking
Mammography
Special Procedures/Cath Lab
Digital Imaging
CT Scanning

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Cross Sectional Anatomy and Image Analysis

COURSE NUMBER: RAD 262

CREDITS: 1 credit

CLOCK HOURS: 1 Hour per week

PREREQUISITES: RAD 130, 131, and 231

COURSE DESCRIPTION: This course introduces the student to human anatomy as seen in the transverse, coronal, and sagittal planes. Anatomy of the brain, thorax, abdomen, and pelvis will be studied using CT and MRI images. Anatomy and selected pathologies will be discussed in the various body regions. The analysis and evaluation of performed images will be discussed.

EVALUATION TECHNIQUES:

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests</td>
<td>50%</td>
</tr>
<tr>
<td>Final Examination</td>
<td>35%</td>
</tr>
<tr>
<td>Image Analysis Quizzes</td>
<td>15%</td>
</tr>
</tbody>
</table>

USE OF MEDIA AND RESOURCES:
- Demonstration
- Active participation
- Various Web-Based Resources
- Image Analysis


COURSE OBJECTIVES: The student will:

1. Differentiate major anatomical regions in the transverse, coronal, and sagittal plane.
2. Identify major anatomical structures of the head, thorax, abdomen, vertebral column, extremities, and pelvis in cross section.
3. Describe anatomical relationships of key anatomical structures.
4. Actively participate in image analysis and film critique.

COURSE CONTENT:
- Anatomic Structure
- Critical Thinking
- CT Scanning
- MRI Scanning

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
### COURSE TITLE:
Radiographic Equipment

### COURSE NUMBER:
RAD 255

### CREDITS:
3

### CLOCK HOURS:
45 hours

### PREREQUISITES:
RAD 246

### COURSE DESCRIPTION:
An investigative/research class of possible career ladders or areas of specialization in medical imaging. Various types of imaging equipment and techniques and the latest issues, trends and developments in radiology will be discussed. The course studies the fundamental organization and procedures of a radiology department quality assurance program. The student will be introduced to and will perform a varied number of non-invasive quality control tests designed to evaluate the operating performance of radiographic and accessory equipment. The course will also include projects designed to enhance the student’s understanding of materials presented in the classroom.

### EVALUATION TECHNIQUES:
- Tests
- Final Examination
- Quizzes
- Research Projects

### USE OF MEDIA AND RESOURCES:
- Various Journal Articles
- Audio-Visual Media
- Handouts
- Guest Speakers

Text:
- Radiographic Science for Technologist; Bushong; 10th Edition
- Digital Radiography and PACs; Carter; 2nd Edition
- Review for the Radiography Examination; Saia; 9th Edition
- Comprehensive Review of Radiography; Callaway; 6th Edition
COURSE OBJECTIVES: The student will:

1. Relate the research and development of digital imaging.
2. Identify the basic duties of personnel in each of the medical imaging modalities and radiation therapy.
3. Describe the academic preparation for continued education relating to medical imaging.
4. Write a cover letter, resume and response letters.
5. Describe how to prepare for a job interview.
6. Define quality control and relate it to mammography as well as diagnostic radiology settings.
7. List the processor quality control steps.
8. Successfully complete a Q.A. test in the radiography department.
9. List and explain the types of quality control techniques and equipment checks in a radiography department.
10. Describe how to produce a technique chart from start to finish.

COURSE CONTENT: Management
Education
Self Assessment
Marketing
Resume Writing & Interviewing
Quality Assurance Management
Quality Control Techniques
Basic Equipment Checks
Technique Project

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Radiologic Science III

COURSE NUMBER: RAD 266

CREDITS: 3

CLOCK HOURS: 45 hours

PREREQUISITES: RAD 105, 111, 112, 250

COURSE DESCRIPTION: This course will pull together all of the program material into a total perspective of the profession for radiography and medical imaging. Information will be expanded upon to test the student understands and knowledge of radiographic practices and procedures. The student will participate in numerous mock registry examinations and attend a student review seminar in preparation for the ARRT examination.

EVALUATION TECHNIQUES: Tests
Final Examination
Category Examinations

Text:
Radiographic Science for Technologist; Bushong; 10th Edition
Digital Radiography and PACs; Carter, Veale 2nd Edition
Review for the Radiography Examination; Saia; 9th Edition
Comprehensive Review of Radiography; Callaway; 6th Edition
Radiographic Imaging and Exposure; Fauber; 4th Edition

Use of Media and Resources:
Various Journal Articles
Videos
Power Point
Handouts
Computer Programs
Seminar
COURSE OBJECTIVES (CONTINUED):

1. Relate the latest research and development techniques of digital imaging.
2. Actively participate in film critique.
3. Identify the controlling and influencing factors for imaging quality, image production and image evaluation.
4. Identify the film size, CR, DR, AEC, screen speed, anatomical and pathological structures, patient position, and patient care and management for radiographic procedures.
5. PACS, HIS, RIS, Networking and workflow
6. Viewing conditions, contrast resolution/dynamic range
7. DICOM gray scale function
8. Window level and width function
9. Gross exposure errors
10. Moire effect/aliasing
11. SNR/CNR
12. Name the measures of radiation protection for the patient and personnel.
13. PSP (photo-stimulable phosphor) compared to Flat panel detectors
14. Mathematical formulas
15. Electron Interactions
16. The controlling and influencing exposure factors
17. Geometric unsharpness/sharpness
18. Radiologic equipment
19. Fluoroscopic components
20. Tomography

COURSE CONTENT:

- Image Production and Evaluation
- Radiation Protection & Biology
- Radiographic Equipment Operation and Maintenance

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Clinical Practice

COURSE NUMBER: RAD 290

CREDITS: 4

CLOCK HOURS: 21 hours per week clinical

PREREQUISITES: RAD 232

COURSE DESCRIPTION: This semester the student has the opportunity to complete and correlate all clinical and didactic experiences to a high degree of efficiency and proficiency. The student is able to demonstrate a great deal of independence in discretion and judgment while performing basic radiographic procedures. Completion of all competency based testing and surgical sheet is required. The student will finish the clinical rotations through the specialized areas.

EVALUATION TECHNIQUES:
- Written clinical examination 20%
- Completed Staff evaluations 20%
- Clinical instructor’s evaluation 20%
- Competency Based Evaluations 20%
- Completed Worksheets 20%

USE OF MEDIA AND RESOURCES: Demonstration
Active participation
Film critique

COURSE OBJECTIVES: The student will:

1. Use oral and written medical communications.
2. Demonstrate knowledge of human structure, function and pathology.
3. Anticipate and provide basic patient care and comfort.
4. Apply principles of body mechanics.
5. Perform basic mathematical functions.
6. Operate radiographic imaging equipment and accessory devices.
7. Position the patient and imaging system to perform radiographic examinations and procedures.
8. Modify standard procedures to accommodate for patient condition and other variables.
10. Determine exposure factors to obtain diagnostic quality images with minimum radiation exposure.
11. Adapt exposure factors for various patient conditions, equipment, accessories and contrast medias to maintain appropriate imaging quality.
13. Recognize emergency patient conditions and initiate first aid and basic life-support procedures.
14. Evaluate radiographic images for appropriate positioning and image quality.
15. Evaluate the performance of radiographic systems, know the safe limits of equipment operation, and report malfunctions to the proper authority.
16. Demonstrate knowledge and skills relating to quality assurance.
17. Exercise independent judgment and discretion in the technical performance of medical imaging procedures.
18. Participate in quality assurance procedures.
19. Complete all required competencies and surgical sheet.
20. Must pass written clinical final exam.

COURSE CONTENT: Rotations: all clinical areas

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Advanced Anatomy and Physiology

COURSE NUMBER: RAD 233

CREDITS: 3

CLOCK HOURS: 45 hours

PREREQUISITES: RAD 105, RAD 121, RAD 122, RAD 125, RAD 106, RAD 215

COURSE DESCRIPTION: This course will pull together all of the anatomy, positioning, pathology and patient care material.

EVALUATION TECHNIQUES: Tests

USE OF MEDIA AND RESOURCES: Overheads, Image Critique, Anatomy and Power Points

Text:
Review for the Radiography Examination; Saia; 9th Edition
Comprehensive Review of Radiography; Callaway; 6th Edition
Radiographic Pathology for Technologists, 6th Edition. Mace
Introduction to Radiologic Imaging Sciences and Patient Care; Adler, Carlton, 6th Edition

COURSE OBJECTIVES: The student will:
1. Identify anatomical and pathological structures, radiographic procedures and positioning
2. Patient care and management for radiographic procedures
3. Radiographic terminology
SENTARA RMH
SCHOOL OF RADIOLOGIC TECHNOLOGY

COURSE SYLLABUS

COURSE CONTENT: Patient Care and Management
Radiographic Anatomy and Procedures
Radiographic Pathology
Medical Terminology

ATTENDANCE: Mandatory with the exception of excused personal time.

Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
COURSE TITLE: Radiographic Research Studies

COURSE NUMBER: RAD 299

CREDITS: 2

CLOCK HOURS: 30 hours

PREREQUISITES: RAD 215, RAD 246

COURSE DESCRIPTION: Various subjects will be assigned to students in conducting research for oral and written presentations. Topics will include Geriatric, Pediatric, Special Procedures and Trauma. Students should have the ability to gather and interpret medical information, document details, develop and use logical reasoning and organization of ideas. Research papers should show an adequate amount of work, time, dedication and effort in order to produce a quality paper.

EVALUATION TECHNIQUES: Written Research Papers
Oral Presentations

USE OF MEDIA AND RESOURCES: Various journal articles, text books, audio visual media, internet, libraries and physicians

COURSE OBJECTIVES: The student will:

1. Be able to practice writing as a process including the following elements:
   A. Process of collecting information
   B. Process of formulating ideas
   C. Able to distinguish concepts and ideas in a logical organized manner
   D. Being able to build transitions between paragraphs, revising thoughts, and proof reading papers before final presentation.

2. Identify and cite appropriate sources.
3. Demonstrate the ability to write a research paper and avoid plagiarism.

4. Student will possess the ability to write a paper that demonstrate the ability to define and compare topic material.

5. Demonstrate knowledge of basic library / internet procedures.

6. The ability to present their research paper orally to their peers.

**COURSE CONTENT:** Pediatric (6 years and younger)  
Geriatric (65 years and older)  
Special Procedures  
Trauma

**ATTENDANCE:** Mandatory with the exception of excused personal time. Individuals who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform the instructor at the start of the quarter. Adaptation of methods, materials, or testing may be made as required to provide for equitable participation.
Section 7

PROGRAM EXPECTATIONS / PROFESSIONALISM OF THE STUDENT DURING CLINICAL/DIDACTIC and ARRT CODE OF ETHICS
Students not adhering to the following expectations may be asked to leave the clinical area and face discipline actions. The student must:

1. Learn the proper use and operation of equipment and department protocols. (Examples: Identifying patients by two means of identification, transporting patients, proper recorded keeping and identification of images, practicing ALARA, and remembering everyone is your customer and should be treated with respect.)
2. The student should practice positioning when they have down time. When performing mandatory labs, the student should actually be practicing their positioning or studying. You have not passed your registry as of date and should take every opportunity to study.
3. Prepare prior to the clinical experience by reviewing radiographic procedures and protocol routinely performed in the assigned area. Different areas or locations may have different routines and the student should be able to adapt.
5. Attend clinical only when healthy; do not come if sick.
6. Communicate professionally with patients, peers, staff, physicians, and faculty. No non-verbal (facial expressions, hand jesters, etc.), or verbal non productive comments (disrespectful comments, discussing personal issues, etc.).
7. Assume responsibility for providing safe and effective patient care. Treat every patient as if they were a member of your family. Remember confidentiality.
8. No chewing gum, eating, or drinking in core area or in front of patients.
9. Communicate with the patients and their families in a respectful nonjudgmental manner. Everyone is not required to be nice to you.
10. Practice the Code of Ethics of the ARRT.
11. Adhere to the dress code for Radiography students as stated in the handbook. Dressed to impress and take pride in your appearance.
12. Assume responsibility for providing evaluation forms to the appropriate individuals and follow through on their completion. Do not try and blame others for your mistakes.
13. Accurately record clinical exams and competencies as required for current rotation.
14. Complete all assignments in a timely fashion.
15. No cell phones on floor.
16. Take the lead with requests and exams. Never tell your technologist “I’m checked off, I don’t need that procedure.” The student needs to perform every procedure before they graduate. Volunteer to get the patient, help prepare and clean room.
17. Do not bring illegal drugs, alcohol, or weapons on school or clinical grounds.
18. Use your markers on every image. Identify all images.
19. If you have a problem please see your instructors. We prefer to handle little problems before they become big ones. The student can talk to faculty at any time.
20. Protect patient’s right to privacy.
21. No sleeping in clinical areas.
PROGRAM EXPECTATIONS / PROFESSIONALISM OF THE STUDENT IN THE DIDACTIC SETTING

Students not adhering to the following expectations may be asked to leave the didactic setting and face discipline actions. The student must:

1. Do **Not** ask to leave early. If you are dismissed early, consider this a bonus.
2. Students are expected to be on time for class and ready to learn.
3. Students are expected to be prepared for class.
4. Students are expected to complete assignments on time. Late assignments may not be accepted or may result in a lower score. Nonperformance of assignments is not productive to learning and will result in an incomplete. Any missed tests or quizzes will be made up at the faculty discretion.
5. Students should demonstrate respect for self, fellow classmates, and instructors.
6. Limit talking and distracting noises. If a student is asked to quit talking and continues, that student will be asked to leave and take personal time. We will not have distractions to others who want to learn. Paying attention to the material being presented becomes impossible if you are talking.
7. If you are sleepy in class, take a quick break or you will be asked to leave.
8. Accept and give constructive feedback.
9. Be open and accepting of others’ ideas - no laughing or put downs.
10. Refrain from working on assignments for other courses during class time. The course being taught should be the one you are paying attention to. This is disrespectful and frustrating to the instructor who is trying to teach.
11. Demonstrate willingness to learn.
12. No cell phones, computers or other electronic devices on while class is being taught.
13. Keep noise level reasonable. No screaming, yelling, or other outbursts. Remember, you are sharing your area with other hospital personnel.
14. Dress according as stated in handbook. Take pride in your appearance.
15. Do not bring illegal drugs, alcohol, or weapons on school or clinical grounds.
16. If you need additional help, please see your instructors for help. We have an open door policy.
17. Study, study, study. Avoid outside distractions and don’t get behind. If there is down time between classes, you are expected to make the most of your time by practicing positioning or studying materials related to the program.
18. Work each day to improve your skills in your profession. Use your educational opportunity wisely.
ARRT Code of Ethics

1. The radiologic technologist conducts herself or himself in a professional manner, responds to patient needs, and supports colleagues and associates in providing quality patient care.

2. The radiologic technologist acts to advance the principal objective of the profession to provide services to humanity with full respect for the dignity of mankind.

3. The radiologic technologist delivers patient care and service unrestricted by the concerns of personal attributes or the nature of the disease or illness, and without discrimination on the basis of sex, race, creed, religion, or socio-economic status.

4. The radiologic technologist practices technology founded upon theoretical knowledge and concepts, uses equipment and accessories consistent with the purposes for which they were designed, and employs procedures and techniques appropriately.

5. The radiologic technologist assesses situations; exercises care, discretion, and judgment; assumes responsibility for professional decisions; and acts in the best interest of the patient.

6. The radiologic technologist acts as an agent through observation and communication to obtain pertinent information for the physician to aid in the diagnosis and treatment of the patient and recognizes that interpretation and diagnosis are outside the scope of practice for the profession.

7. The radiologic technologist uses equipment and accessories, employs techniques and procedures, performs services in accordance with an accepted standard of practice, and demonstrates expertise in minimizing radiation exposure to the patient, self, and other members of the healthcare team.

8. The radiologic technologist practices ethical conduct appropriate to the profession and protects the patient’s right to quality radiologic technology care.

9. The radiologic technologist respects confidences entrusted in the course of professional practice, respects the patient’s right to privacy, and reveals confidential information only as required by law or to protect the welfare of the individual or the community.

10. The radiologic technologist continually strives to improve knowledge and skills by participating in continuing education and professional activities, sharing knowledge with colleagues, and investigating new aspects of professional practice.

More information can be found at https://www.arrt.org.
Section 8

GRADUATION REQUIREMENTS
GRADUATION REQUIREMENTS

PROGRAM GRADUATION REQUIREMENTS:
1. Successful completion of all clinical and graduation competencies;
2. Successful completion of all RAD course work with at least a “C” grade;
3. Complete an exit questionnaire.
4. Cumulative RAD and overall GPA of 2.5 or higher.
5. Students are required to take three comprehensive mock registry examinations, with a passing grade of 78% or better achieved on at least one. If a student fails all 3 mock registry examinations they will not be allowed to graduate and will require additional testing during summer semester. The 4th mock will be given 2 weeks after the graduation date of the program. Failure to pass a 4th mock registry will require the student to withdraw from the program.
6. Student must be in good standing in order to graduate.
7. Attendance is mandatory for 1st year students and graduates at graduation unless excused by Program Director.

GRADUATION COMPETENCIES
1. Use oral and written medical communications;
2. Demonstrate knowledge of human structure, function and pathology;
3. Anticipate and provide basic patient care and comfort;
4. Apply principles of body mechanics;
5. Perform basic mathematical functions;
6. Operate radiographic imaging equipment and accessory devices;
7. Position the patient and imaging system to perform radiographic examinations and procedures;
8. Modify standard procedures to accommodate for patient condition and other variables;
9. Produce quality images;
10. Determine exposure factors to obtain diagnostic quality radiographs with minimum radiation exposure;
11. Adapt exposure factors for various patient conditions, equipment, accessories and contrast medias to maintain appropriate radiographic quality;
12. Practice radiation protection for patient, self and others;
13. Recognize emergency patient conditions and initiate first aid and basic life-support procedures;
14. Evaluate radiographic images for appropriate positioning and image quality;
15. Evaluate the performance of radiographic systems, know the safe limits of equipment operation, and report malfunctions to the proper authority;
16. Demonstrate knowledge and skills relating to quality assurance;
17. Exercise independent judgment and discretion in the technical performance of medical imaging procedures; &
18. Successfully completes the required clinical competencies.

CLINICAL COMPETENCIES:
1. Completion of the required CBE’s;
2. Completion of all assigned clinical time; &
3. Completion of all objective sheets.
Section 9

FIRE PLAN
FIRE PLAN

Department: Imaging Services

PURPOSE: To provide an understanding of fire safety for staff working in various areas in Radiology.

PROCEDURE:

1) In case of a fire, activate nearest fire alarm pull box and dial 6111.

2) RACE
   a) All staff will have knowledge of what action is to be taken when a fire is observed or announced over the PA system.
   b) Procedures for the acronym RACE are outlined in the hospital Plan Manual.

3) PULL BOXES
   Employees will be shown the location of pull boxes within their work area.

4) EXIT ROUTES/LIGHTS
   Employees will be shown the location of exit signs and exit routes in their work area.

5) FIRE EXTINGUISHERS
   Fire extinguishers are located throughout the department and employees must be familiar with these locations.

6) SECURING AREA
   a) When a fire code is announced, staff will turn on lights and close all doors.
   b) Staff will stay in their location and will not pass through fire/smoke doors.
   c) Patients will be instructed not to take elevators or move about the hospital until the “all clear” is sounded.
   d) Oxygen supplies will be turned off by the supervisor and lead techs.

7) EVACUATING PATIENTS, VISITORS, AND STAFF
   a) Staff will remain in the area to assist in the evacuation of patients.
   b) Patients may be moved by any method that will move them to safety.
   c) When patients/visitors are cleared from the area, staff will then move to a safe location.

8) RESPONSIBILITY
   It is the responsibility of the supervisor of each area to ensure that staff is familiar with the policy and knows the location of pull boxes, exit routes, extinguishers, and what protocol to follow in the event of a fire (RACE).
PURPOSE: This plan is written specifically for radiography program staff and students located at 3200 Peoples Drive, Harrisonburg, Virginia.

PROCEDURE:

1. In case of a fire, call 911.

2. All staff and students will follow the procedures delineated by the acronym “RACE” as outlined in the hospital Plan Manual.

3. Staff and students will be shown the location of exit lights, exit routes, and fire extinguishers.

4. Hall or passageways must be kept clear of equipment and clutter.

5. In the event of a fire alarm, staff will turn on lights and close doors throughout the area. All students will evacuate the building and meet in a designated area (picnic table).

6. All staff and students will participate in annual training on this, the Fire Plan for the School of Radiologic Technology, as well as the imaging department plan and the hospital wide plan.

7. Evacuation maps are located in the radiology classroom, lab, and hallway.