Daytona State College, a comprehensive public college, provides access to a range of flexible programs from community enrichment to the baccalaureate degree, emphasizing student success, embracing excellence and diversity, as well as fostering innovation to enhance teaching and learning.

Radiography Program 2024- 2025

Program Policies and Procedure Handbook

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Welcome

Welcome to Daytona State College and the Radiography Program! We are extremely proud of our program and our profession. We are pleased you have chosen to pursue your education in Radiologic Sciences here. Each student radiographer plays a vital role in our commitment to the health care needs of our community. You will be instructed on all aspects of quality patient care, skills required to produce diagnostic images and quality improvement methodology. You will be guided in the professional sphere of this discipline by working directly with health care professionals and patients.

This policy manual is developed to acquaint you with the policies of the Radiography Program and the Professional Curriculum. It is not intended to answer all your questions or cover every possible situation. Please read through this document prior to the orientation classes. The faculty will review information in this manual during the orientation period, answer questions and refer to this manual for policy and/or procedure issues.

The Radiography Program under applicable rules of the Administrative Procedures Act may change any of the announcements, information, policies, rules, regulations and/or procedures set forth in this manual. The manual is published annually and cannot always reflect new and/or modified policies/procedures. Statements in this manual may be regarded in the nature of binding obligations on the institution and student. All revisions will be provided to the students.

Student radiographers will be accountable for the requirements, policies and procedures defined in this manual and any revisions provided throughout the 24-month program. Additional information or clarification of any policy or procedure may be obtained from program faculty.

Note: Student radiographers should contact Student Disability Services if they require course adaptations or accommodations at DSC because of a disability. If the student has emergency medical information or requires special arrangements in case the building at DSC must be evacuated, please make an appointment with Student Disability Services.

History of the Radiologic Technology Program

In the early 1960s, the faculty of Daytona State College (DSC) and the Halifax Health Medical Center Radiology Department expressed an interest in developing a Radiologic Technology Program because of the recognition of the ever-increasing needs and opportunities in this allied health profession. The existing certificate programs, number, and quality of entrants into the profession had been a disappointment, and there was a desire for combining an advanced educational opportunity to allow for upward mobility and continued education toward a degree in Radiologic Technology or a related discipline.

It was felt that the combined academic and clinical education would upgrade the level of the radiographer as well as supply an ever growing and continuing need for Registered Technologists in Radiography. A quality hospital-based educational program including general education courses at the college level would seem to provide an ideal educational opportunity to better prepare individuals for this health profession. This became the objective of the Program.

After thorough investigation, a proposal for a hospital-based program in Radiologic Technology including general education courses was submitted. This proposal was submitted to the Committee on Technologist Training of the American College of Radiology and the American Medical Association's Council on Hospitals and Education. This program was so impressive that it has remained a prototype model for hospital-based programs requiring

general education courses taken at community colleges. This program was approved on August 19, 1965, for a total of 30 students divided over a 3-year period.

In June 1990, an official affiliation agreement was signed with Daytona State College allowing graduates the opportunity to receive an Associate in Science Degree in Radiography.

The program became a 24-month hospital-based program with the class that started in January 2016 and then became a college-based program with the class that started in May of 2021.

Program Mission Statement

To provide a multi-skilled, comprehensive education for students in the Radiologic sciences. The Program will promote standards to meet stated outcomes for service-oriented professionals that are entry level into the profession and promote multi-competency and lifelong learning.

Program Goals

To provide the health care community with graduates who possess:

- Ability to assume their role as an entry-level radiographer in providing quality patient care
- Critical thinking and problem-solving skills to practice as competent radiographers
- Professional values and attributes to maintain a high standard of ethical conduct with patients, peers, employers, and other members of the health care team
- Motivation to continue their professional growth and development

Assessment Goals

To support the achievement of overall program mission and goals:

Goal 1

Students will be clinically competent to perform diagnostic exams under the proper supervision.

Student Learning Outcomes

1. Students will apply positioning skills.
2. Students will possess knowledge of routine procedures.
3. Student will evaluate and adjust technical factors based on exposure indicator values.
4. Students will practice radiation protection.

Goal 2

Students will communicate effectively and demonstrate oral and written communication skills.

Student Learning Outcomes

1. Students will use effective oral communication skills.
2. Students will practice written communication skills.

Goal 3

Students will use critical thinking and problem-solving skills.

Student Learning Outcomes

1. Students will adapt procedures for non-routine examinations.
2. Students will critique images to determine optimal image quality for individual patients. Goal 4: Students will model professionalism.

Goal 4

Students will model professionalism.

Student Learning Outcomes

1. Students will demonstrate professional ethics to include initiative, dependability, and appearance.
2. Students will be exposed to professional organizations to promote lifelong learning and professional development.

Goal 5

The program will graduate entry-level technologists. (Program Effectiveness)

1. Five-year average credentialing examination pass rate of not less than 80% at first attempt within six months of graduation.
2. Average section summary score > 8.0 for each area on ARRT exam.
3. Five-year average job placement rate of not less than 75% within twelve months of graduation of those actively seeking employment.
4. Students will complete the program within 24 months.
5. Graduates will be satisfied with their education.
6. Employers will be satisfied with the graduate's performance.

Program Effectiveness Data

Halifax Health Medical Center (Program #2251) Transferred Sponsorship to Daytona State College in January 2021 (Program #0686). Consistent with JRCERT Policy 11.400, Procedure 11.404B, the JRCERT does not require that historical program effectiveness data (credentialing examination pass rate, job placement rate, and program completion rate) be transferred to the new sponsor, unless the terminal award remains the same. Because the newly transferred program does not have five years of data for credentialing examination pass rate and job placement rate or one year of data for program completion rate, JRCERT records will identify pass rate, job placement rate, and program completion rate as "0." A "0" for these program effectiveness measures will be reflected on the Program Effectiveness Data section of the JRCERT Web site.

Credentialing Examination: The number of students who pass, on the first attempt, the American Registry of Radiologic Technologists (ARRT) certification examination, or an unrestricted state licensing examination, compared with the number of graduates who take the examination within six months of graduation. The five-year average benchmark established by the JRCERT is 75%

Credentialing Examination Rate	**Number passed on 1st attempt divided by number attempted within 6 months of graduation**
Year	**Results**
Year 1 -NA	NA

Year 2 - 2021	11 of 11- 100%
Year 3 - 2022	0 of 0- 0%
Year 4 - 2023	13 of 13- 100%
Year 5 - 2024	23 of 23- 100%
Program 5-Year Average	47 of 47- 100%

Job Placement: The number of graduates employed in the radiologic sciences compared to the number of graduates actively seeking employment in the radiologic sciences within twelve months of graduating. The five-year average benchmark established by the JRCERT is 75%.

Job Placement Rate	**Number employed divided by number actively seeking employment within 12 months of graduation**
Year	**Results**
Year 1 -NA	NA
Year 2 - NA	NA
Year 3 - 2021	0 of 0- 0%
Year 4 - 2022	11 of 11- 100%
Year 5 - 2023	13 of 13- 100%
Program 5-Year Average	24 of 24- 100%

Program Completion: The number of students who complete the program within the stated program length. The annual benchmark established by the program is 75%.

Program Completion Rate	**number graduated divided by number started the program**
Year	**Results**
Year -2024	23 of 23
Annual Completion Rate	100%

For additional information on program effectiveness data, visit: https://www.jrcert.org/programs/daytona-state-college/

Accreditation

The Radiography Program at Daytona State College is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wicker Dr., Suite 2850, Chicago, IL 60606- 3182. Phone: 312.704.5300 Fax: 312.704.5304 and Website: Joint Review Committee, mail@jrcert.org and www.jrcert.org.

During the educational process, student radiographers are exempt from Florida Licensure Statute- Chapter 468.

The Program has been in compliance with the JRCERT (Essentials) Standards since 1965. Periodic review of the Program-by-Program Self-Evaluation and Site Visit is required for continued accreditation.

Allegations of noncompliance with JRCERT Standards are reviewed and investigated by the Education Coordinator and Clinical Faculty. A report is presented to the Advisory Committee along with any recommended actions. The Education Coordinator responds to the JRCERT inquiry within the requested time frame.

The JRCERT Education Program Standards are available to the students and public through the Program Office and will be reviewed in the course entitled: “Fundamentals of Radiologic Technology.”

Daytona State College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate and bachelor's degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Daytona State College.

Admission Committee Policy, Equal Opportunity

Daytona State College prohibits discrimination and provides equal opportunity in employment and education services to all individuals without regard to age, ancestry, belief, color, disability, ethnicity, genetic information, gender, marital status, national origin, political affiliation, pregnancy, race, religion, sex, sexual orientation, or veteran status. Our pledge covers recruitment, admission, registration, financial help, counseling, advising, course offerings, extracurricular programs, facilities, health services, athletics, employment and its privileges and benefits. To obtain more information about the College’s equal access and equal opportunity policies, procedures, and practices, please telephone Cerese Ramos, Vice President of Student Services, at (386) 506-3973, or write to him at: 1200 W. International Speedway Blvd., Daytona Beach, FL 32114.

International Students

You are classified as an international student if required forms must be submitted to the US Department of Justice. However, if you have immigrated to the US and have a resident alien number, you will not be classified as an international student. All DSC criteria for international students must be followed prior to admission. Refer to the DSC Catalog.

In addition, certified official academic transcripts are required from secondary schools, colleges, universities, technical and other post-secondary schools attended. Transcripts in languages other than English must include official certified English translations, authentic verifying statements and signatures.

Further information concerning this process may be obtained by contacting the Immigration and Naturalization Services (INS) at 1-800-375-5283 or webpage http://www.uscis.gov/graphics/index.htm.

Advanced Placement

The structure of the Radiography Program does not allow for advanced placement. The program will only accept college credit taken at DSC or transferred to DSC and appearing on the official transcript. The Program does not accept transfer RTE courses.

Early Release

The structure of the Radiography Program does not allow for early release. Didactic courses continue throughout the entire 24-month period. Clinical Education continues throughout the entire 24 months duration for continued competency and continuity.

Organizational Chart

The Radiography Program is housed in Academic Affairs.
https://daytonastate.smartcatalogiq.com/en/current/College-Catalog/About-Daytona-State/Administration-and-Faculty/Administrative-Organization-of-the-College

Within Academic Affairs the Program is part of the College of Health and Public Services and the School of Health Careers.

Administrative Structure for the Radiography Program

Associate Vice-President, College of Health and Public Services

Colin G. Chesley, Ed.D., MBA, LNHA
Daytona Beach Campus, Health Sciences Hall, Building 320, Room 531
(386) 506-4429
Colin.Chesley@DaytonaState.edu

Chair, School of Health Careers

Geraldine Rimstidt
Daytona Beach Campus, Health Sciences Hall, Building 320, Room 552
(386) 506-3823
Geraldine.Rimstidt@DaytonaState.edu

Program Director/ Assistant Chair/Faculty, Radiography Program

Dee Ann Vanlandingham
Daytona Beach Campus, Health Sciences Hall, Building 320, Room 134
(386) 506-3399
Dee.Vanlandingham@DaytonaState.edu

Clinical Coordinator/Faculty, Radiography Program

Carrie Regoli
Daytona Beach Campus, Health Sciences Hall, Building 320, Room 132
(386) 506-3302
Carrie.Regoli@DaytonaState.edu

Administrative Specialist

Jan Ranft

Daytona Beach Campus, Health Sciences Hall, Building 320, Room 552
(386) 506-3080
jan.ranft@daytonastate.edu

Institutional Academic Integrity Code

Daytona State College is committed to providing students with quality instruction, guidance, and opportunities for academic and career success by fostering academic excellence in a supportive and personalized learning environment. Maintaining high standards of academic honesty and integrity in higher education is a shared responsibility and an excellent foundation for assisting you in making honorable and ethical contributions to the profession for which you are preparing. In order to preserve academic excellence and integrity, the college prohibits academic dishonesty in any form, including, but not limited to, cheating and plagiarism. Grades conferred by instructors are intended to be accurate and true reflections of the coursework actually produced and submitted by you. Suspected violations of the student academic dishonesty code will be handled by individual instructors as outlined in the Daytona State College Student Handbook and in this manual. In some cases, students may be reported to the academic department chair for review and academic consequences. In addition, some students may be referred to the Judicial Affairs Office for appropriate disciplinary action.

Forms of Academic Dishonestly

Academic dishonesty is defined as, but not limited to, receiving, or giving unauthorized assistance on a quiz, test, exam, skill check, practical, paper or project, or unauthorized use of materials including online tests and test banks; collaborating with another person(s) without authorization on a quiz, test, exam, paper, or project; taking a quiz, test, or exam for someone else, or allowing someone else to do the same for you.

Plagiarism

Submitting work in which words, facts or ideas from another source are used without acknowledging that the material is borrowed, whether from a published or unpublished source. For specific instructions on how to document information from other sources, students should consult with their instructors.

Fabrication

Listing sources in a bibliography that one did not actually use in a written assignment, or presenting false, invented, or fictitious data/information in a written assignment.

Other Academic Misconduct

Other academic misconduct includes, but is not limited to:

- Impersonating a college faculty or staff member.
- Attempting to access, procure or distribute restricted college educational and instructional materials.
- In a testing situation, including testing done electronically within online classes, in face-to- face courses, proctored, or online, conduct such as: looking at a classmate's test, talking to a classmate or leaving the classroom without the instructor's or test proctor's permission.
- Obtaining by theft/purchase or selling/giving part or all of a test; accessing unauthorized websites to facilitate cheating, receiving unauthorized help from others, or any other forms of academic dishonesty which would be considered cheating within a traditional classroom or in the online class environment.
- Altering or attempting to alter academic records of the college which relate to grades; being an accessory to same.

- Use of unauthorized materials or electronic devices during testing in any of the college Assessment Centers or college approved off-campus testing locations.
- Violation of copyright laws and/or unapproved use of intellectual property.
- Refusal to comply with state, college and/or faculty testing policies and practices.

Student Rights and Grievance Procedure

Students who perceive that they have been mistreated by college staff or faculty may register their academic or other grievance with a college supervisor, administrator, or academic department chair. Distance Learning students must follow the same procedures. Reasonable accommodations will be made for Distance Learning students who are unable to attend meetings on one of the college campuses. Students must assume complete responsibility for complying with the informal grievance procedure and attempt to resolve their grievance at the lowest level possible. The college is not responsible for students who are not educated about or misinterpret the college procedures for resolving grievances.

The Resolution Process for Academic Dishonesty

The professor or instructor conducting the course may notify the student verbally or by written form that the student is suspected of academic dishonesty and offer an academic consequence or resolution. If the student agrees with the academic consequence issued by the instructor, the matter will be resolved. If the matter is not resolved with the instructor, the student may request a meeting with the Radiography Program Director. If the matter cannot be resolved at that level, the student may contact the Chair of the School of Health Careers, followed by the Associate Vice-President for the College of Health and Public Services followed by the Vice-President for Academic Affairs. The student is required to provide evidence in response to an allegation of academic dishonesty and present information to the school chair that there was an attempt to resolve the matter with the instructor. The school chair will review the matter and offer a resolution or academic consequence. If the matter is not resolved with the school chair, the student may request a meeting with the academic associate vice president. The academic associate vice president may uphold the previous decision by the school chair or render an alternate academic decision. If the student is not satisfied with the decision made by the associate vice president, the student may request an administrative review to the senior vice president of academic affairs and/or the senior vice president of student development and institutional effectiveness. The student must submit a written request and explain the reason for the administrative review. The vice presidents will review the written request and make the appropriate decision.

Student's Grade During Review

Until a decision is rendered, the student may not receive a grade for the test or project in question unless a grade has already been issued. If a decision has not been made by the end of the semester in which the incident occurred, a grade of "Incomplete" may be assigned until the matter is resolved. If the student is found not in violation of academic dishonesty, the test/project will be graded, and a grade will be assigned. If it is determined that the student is in violation of academic dishonesty, a grade of "0" or "F" will be given for the course in question. Additional disciplinary sanctions may be administered by the Judicial Affairs Office.

JRCERT

To maintain accreditation, the Program makes every effort to be in compliance with JRCERT Standards. Any student who has a complaint of non-compliance should notify the Education Coordinator in writing within 5 workings days of the event. The Education Coordinator will investigate the allegation and respond within 10 working days of the complaint. If the non-compliance allegation is not corrected by the Education Coordinator,

the Grievance Procedure and timeframes listed above is to be followed. If the final resolution is not satisfactory, the student may contact the JRCERT within 5 working days of the final resolution.

Withdrawal Procedures

A student who decides to withdraw from the Program must submit a letter of withdrawal to the Program Director immediately. Failure to do so will result in a termination of enrollment for reason of non- compliance with Program policies. This will seriously jeopardize a terminated student's eligibility to re- enroll in the Program for a future class. Any student who is dismissed or has withdrawn from the Program and desires to be re-interviewed for the following year's class or a future class, must re-activate their file by a written request, which must be received prior to January 1st. Re-entrance to the Program will be based upon the same criteria as all other applicants and past performance documentation on file.

Dismissal

Program authorities may dismiss students for those indicated violations listed under Rules of Conduct or any serious or continuous non-compliance with policies. Students may also be dismissed for failure to maintain a minimum 85% scholastic average in the Program. The Program authorities may, also, dismiss a student whose personality is inconsistent with proper and acceptable patient, technologist, physician or fellow student relationships.

Performance Standards

Radiography involves providing direct patient care, which requires the application of knowledge in the performance of specific tasks. Performance standards represent the abilities needed to succeed in satisfying the objectives and competencies required to perform these takes.

Those abilities include:

Physical Capabilities

Students must be able to make and report visual observations, differentiate between shades of black, white, and gray, work in subdued lighting and read and carry out verbal and written orders. (Eyesight must be 20/40 or be corrected to that level.)

Students must be able to hear blood pressures; breath sounds, verbal orders and during emergencies, hear alarms or distress calls from patients. (Hearing must be corrected to no more than a 50% loss.)

Students must be able to palpate patients for positioning, taking pulses and determining body temperature.

Students must possess physical ability and stamina enabling them to withstand an 8-hour period of standing and/or to move quickly and, at times continuously. It is often necessary to lift, move or support patients and/or equipment of greater size and weight than self. Therefore, strength of back, legs and arms, and the ability to use proper body mechanics are necessary for the safety of both patients and students.

Mental/Emotional Capacity

Students must be able to think clearly, critically, and logically, to make valid and ethical judgments and act effectively in stressful situations. An ability to perceive events realistically, think rationally and function independently in routine or emergency situations. When, in the judgment of clinical or didactic faculty, it is necessary, a certified psychologist or psychiatrist will determine this ability.

Communication Ability

Students must be able to communicate observations to others in a clear, concise manner in both oral and written forms. In the judgment of the clinical instructors, the student must be able to speak and interact effectively with patients and members of the health care team.

Students admitted to this program receive a copy of these standards with a request for acknowledgement and return. Students may request accommodation to one or more performance standards based on a disability. Such accommodation will be provided in accordance with the Daytona State College rules, state, and federal statutes.

Corrective Action

Following are the various forms of corrective action arranged by degree of severity:

1. Verbal reprimand
2. Written warning
3. Disciplinary probation or suspension
4. Dismissal

There are certain types of misconduct, which may also be so serious as to warrant corrective action up to and including suspension or recommendation for dismissal without notice.

The following are examples of such misconduct: If a student has had previous corrective actions, the dismissal option will be selected.

1. Any false statement made on the program application, medical history, background check, or omission of information that might unfavorably affect the application.
2. Negligent or unauthorized acts which contribute to a serious hazard for, or injury to, any patient or other persons on college or clinical site premises.
3. Unauthorized disclosure of confidential information about patients or the clinical site that is a breach of confidentiality, patient rights or non-compliance with HIPAA standards, or unauthorized use of clinical site computer system to investigate patient medical records.
4. Falsifying clinical site records, including false recording of attendance.
5. Violation of college and clinical sites solicitation and distribution policy.
6. Unauthorized use, possession, or removal of property belonging to the college, clinical site, patients, visitors, personnel, or others associated with the facility.
7. Proven theft, pilfering, fraud, or any other form of dishonesty in connection with the college or clinical site.
8. Unauthorized possession of firearms or other dangerous weapons on college or clinical site premises.
9. Unauthorized use, possession of, or being under the influence of intoxicants, narcotics, or other drugs on the college or clinical site premises.
10. Assaulting, threatening, or intimidating anyone associated with the college or clinical site.
11. Malicious gossip or derogatory attacks concerning anyone associated with the college or clinical sites.
12. Insubordination, including refusal to abide by a reasonable order or act that challenges the authority of supervisory personnel to issue a valid order.
13. Gross negligence of duty or leaving clinical assignment during scheduled hours without proper authorization.

14. Discrimination against employees, patients, visitors, or any other persons associated with the college or assigned clinical sites because of race, color, creed, age, gender, national origin, ancestry, religion, or disability.
15. Any form of grossly improper conduct detrimental to the clinical site's operation of patient care.
16. Violation of college and clinical site smoking policy.
17. Failure to call the Program Office and Department to report absence or tardy.
18. Unprofessional or inappropriate postings concerning the clinical sites, Radiography Program, staff, students, or patients on social network sites.

While the list above is comprehensive, it is not intended to cover every possible action, which may warrant disciplinary action. It is intended to help students become aware of the need of proper conduct.

Daytona State Radiologic Technology Education Corrective Action/Counseling

Student Name _____ **Date** _____

Purpose of Corrective Action/Counseling

- ☐ Academic
- ☐ Unprofessional Attitude
- ☐ Unprofessional Appearance
- ☐ Unauthorized Absence
- ☐ Excessive Tardiness
- ☐ Excessive Absenteeism
- ☐ Clinical Performance
- ☐ Improper Conduct
- ☐ Insubordination

The following issue(s) was/were discussed with the student radiographer

Plan of Action

Previous Counseling/Corrective Action

- ☐ Yes _____
- ☐ No

Corrective Action Taken

- ☐ Oral Warning
- ☐ Written Warning
- ☐ Probation _____
- ☐ Suspension _____
- ☐ Dismissal

Student Radiographer Comments

Student Radiographer Signature _____ **Date** _____

Indicates action was discussed not necessarily that the student radiographer is in agreement with counseling/corrective action.

Instructors Signature _____

Confidentiality of Student Radiographer Records

Purpose

To protect the student radiographer's privacy and secure clinical and class records; and, to protect patient privacy.

Procedure

To submit clinical or class records/forms to faculty:

1. Submit directly to faculty member.
2. Place in program mailbox or under locked faculty office door if individual is out of office.
3. Fax any hard copy forms, etc. to faculty and bring original to faculty as soon as possible.
4. When possible, all clinical documents should be completed on Trajecsys.

Student Policies, Rights, and Responsibilities

Daytona State College has established specific policies and procedures to ensure the rights, integrity, and safety of all members of the college community.

Policies concerning the academic honor code, grievance procedure and code of conduct, a drug free school and campus are published in the Daytona State College Student Handbook. The Student Handbook was given out during the program orientation.

Daytona State College is committed to providing a drug free environment for all its employees and students, in compliance with the Drug Free Schools and Campuses Act of 1989 (Public Law 101-226). Employees and students of the College are prohibited from engaging in the unlawful possession, use or distribution of drugs and the institution's activities.

Change of Personal Information

It is very important the program has current contact information for you. Any change of personal information such as your name, address, phone number, legal status must be reported to the Radiography Program Director and the Daytona State Records Department on campus. Changes should be reported as soon as possible after a change occurs.

Learning Resource Center/Library

Students are expected to utilize the extensive resources at the Campus Library, Building 210 on the Daytona Beach Campus. A designated area has been established for the Radiography Program for reference materials and textbooks. Books from this area can be checked out of the library on a limited basis. Students will also be accessing periodicals on the internet. The Computer Commons area in the library is available to all students. The Radiography Program has additional computer access available in the main classroom.

Research Assistance	(386) 506-3518
Circulation Desk	(386) 506-3055

Financial Aid

Financial aid is available in the form of grants, scholarships, loans, and work study. Information is available in the Financial Aid office located in Building 100, Room 104 on the Daytona Beach Campus. Financial Aid applications

may be filled out at any time during student enrollment at Daytona State College. Community based scholarships may be available through hospitals, private corporations, or service groups.

https://www.daytonastate.edu/financial-aid/index.html
Phone: (386) 506-3015
Email: FinancialAid@DaytonaState.edu

Radiography Program Curriculum

The program of study is designed to provide education on radiologic science topics for high school or GED graduates with pre-requisites and co-requisites in General Studies. The curriculum is specifically designed to build upon a foundation of knowledge. To validate this assumption, tests and review sessions are provided in the curriculum. Didactic and clinical hours are required for the completion of the program. Any revisions to either schedule is discussed with the students then distributed in written form.

Completion of the program requires 24 months. A suggested program of study is outlined in the applicant packet and webpage.

Each course plan identifies objectives that the student must achieve. The individual faculty members maintain lesson plans and evaluation instruments for courses. The lesson plans and evaluation instruments are developed from required textbooks, as well as reference material available to the student in the library or online.

Students must maintain an overall average of 85% to remain in the program. Evaluation methods are based upon specified student performance objectives. Specified criteria are applied equitably to all students.

Curriculum validation is accomplished by review of student performance on a continuing basis. Deficiencies noted are rectified either by individual counseling or additional instruction for the entire class.

Curriculum validation is also accomplished by graduate performance study. Employers of program graduates are contacted and asked to determine the level of performance demonstrated by graduates. In addition, the employer is asked to rate the level of preparation demonstrated. The results of this study and graduate evaluation of courses are evaluated by the faculty and presented to the Advisory Committee for discussion and recommendations. Recommendations are used for curriculum modification.

The faculty on a continuing basis accomplishes internal validation of curriculum contact.

Graduation Requirements

By the completion of the Program the student must have passed the minimum number of exams per category and must perform a Terminal/Final Competency Evaluation for each of the major categories with a minimum of 85%. The competency requirements are based on current ARRT standards. In addition to the radiographic procedures, following graduation requirements must be met:

1. Must maintain a minimum 85% average per course and complete all required courses in the Program.
2. Must maintain a 2.5 GPA in each required course at DSC and complete all coursework during the 24 months of the Program.
3. Must pass the six-month and one year test with an 85% or above. Failure of either test will result in dismissal.
4. Must make up all missed clinical time and classroom assignments.

5. Must successfully pass comprehensive final exam with an 80% or above.
6. Must successfully pass review exams with a 75% or above average score.
7. Must turn in radiation monitoring device to Program Office.
8. Must complete and return Exit Interview Survey.
9. Must hold AS degree or higher to be eligible to sit for the ARRT exam.

Graduation ceremonies are held at the end of spring semester (usually the first or second week in May).

It is the student's responsibility to confirm that the necessary official transcripts have been received by the Registrar's office. The student is strongly encouraged to periodically monitor his/her unofficial transcript to be sure that the Daytona State transcript is up to date; this will help minimize the possibility of degree challenges at or near the time of graduation. When the student has successfully fulfilled all of the course and credit hour requirements for the radiography curriculum, he/she will be prepared to apply for graduation with an Associate of Science degree. Although the student will be reminded of this closer to that time, note that it is ultimately the student's responsibility to file an application for graduation and to make sure that all the requirements have been completed

Grading Policies and Procedure

Course grades are based on scores earned on quizzes, exams, special assignments, lab skill checks, lab practical examinations and final examinations. Specific points are listed in specific course syllabi. All tests are the property of Daytona State College and will not be retained by students. The course schedule of class topics and exams is subject to change as the need arises. Grades will be posted on the corresponding course site on Falcon Online. Clinical course grades are based on competency scores and Professional Development Assessments and other criteria as noted in the clinical course syllabi.

Must maintain a minimum of an 85% average in all RTE courses.

95-100	A
94	B+
90-93	B
89	C+
85-88	C
Below 85	F

If a student's performance is weak or unsatisfactory (course average of 84 % and below) at midterm, he/she will be notified and required to meet with the Radiography Program Director and/or faculty to discuss areas of concern and strategies for improvement. At this time, the Corrective Action Form will be completed, and all discussion will be included. In all instances, program faculty will be available for assistance upon student request. The student's signature does not indicate that the student agrees with the statements made on the form. It only indicates that the student had an opportunity to read the form and make comments. This form will be kept confidential and placed in the student's file.

Cognitive Evaluation

Students will also be provided with a cognitive evaluation form at the end of each semester.

Measure of radiography student's ability to recall and process knowledge using critical thinking skills.

Student **Instructor(s)**

Semester **Date**

Standard Measured	Above Standards	Meets Standards	Does Not Meet Standards
Comprehension of course material			
Response to oral and written questions utilizing critical thinking and problem-solving skills			
Timely completion of assignments			
Class Attendance			
Absence			
Tardy			

Grade

Comments

Student Radiographer Signature _____ **Date** _____

Assignments

Assignments are due on the date established by the instructor and announced at least one week in advance. Assignments not submitted on time will result in a reduction of five percentage points per day. If the student anticipates an absence on the day an assignment is due arrangements must be made with the instructor prior to the due date.

Make-Up Examinations

Make-up tests will only be permitted in an emergency, with prior faculty approval. Students must schedule to take exams prior to scheduled absences.

Retake Examinations

The student will be permitted to re-take only one (1) exam per semester (not one test per course). Re-tests are not permitted on comprehensive exams. If you fail the re-test, the two test scores will be averaged. An 85% course average is required for continuance in the program. The re-test will be given at the end of the semester only.

Academic Dishonesty/Cheating

Academic Dishonesty/Cheating in any form will not be tolerated and shall result in the student(s) involved receiving a failing grade (zero) for that exam or project and may result in dismissal from the program. Academic Dishonesty/Cheating can be defined as: receiving or giving unauthorized assistance on a quiz, test, exam, paper, skill check, practicum or project or unauthorized use of materials to complete such; collaborating with another person(s) without authorization on a quiz, test, exam, paper, skill check, practicum, or project; or taking a quiz, test or exam for someone else or allowing someone else to do the same for you.

Plagiarism

Plagiarism can be defined as: submitting work in which words, facts or ideas from another source are used without acknowledging that the material is borrowed, whether from a published or unpublished source. For specific instructions on how to document information from other sources, students should check with their instructors, academic departments, or a recognized writing manual, such as the MLA or APA. Students who are found to have plagiarized will receive a grade of zero for that particular assignment and may be subjected to disciplinary action up to and including expulsion from the program.

Probation and Dismissal

Probationary Status means that a student is in difficulty (academically, professionally, or clinically) within the program. A student will receive a Corrective Action Form from the Instructor. Further violations may result in dismissal from the program.

Due Process

Students in the Radiography Program have the right to due process. Students may appeal grades earned on written examinations, skill checks or practicums. Students may appeal grades earned on clinical internships. Students may also request meetings to discuss perceived behavioral or attitudinal issues in the student/teacher relationship. There is a college-wide policy for grievances as discussed earlier in this manual. Additionally, at the

program level, the faculty will ensure that our "open door" policy is followed at all times with respect to discussion of performance and behavior. We do expect that students seeking due process follow the steps outlined earlier in this document and follow the following hierarch. The administrative hierarchy for problem solving regarding the Radiography Program is:

- Course Instructor
- Assistant Chair, Radiography Program
- Chair, School of Health Careers
  Associate Vice-President for the College of Health and Public Services

In summary, in case of probation or dismissal or grade change appeal, students enrolled in the Radiography Program have the right to appeal the decision. Radiography students wishing to do so will follow the Student Grievance as outlined in the College catalog and College Student Handbook.

Attendance

Student Class and Lab Attendance

Regular attendance in classroom and laboratory sessions is **mandatory**. Attendance at each lecture and lab is critical to obtain the knowledge and skills necessary for practicing as a Radiologic Technologists. You will be permitted a total of 2 absent days per semester from lecture and lab courses. This will include any RTE course each semester, not 2 days per each class. Additional absenteeism beyond the allotted excused absences per semester will result in a loss of three (3) percentage points from the cognitive grade for the first absence and an additional one (1) percentage point per day for each absence following. In the event of unavoidable absence, students are to notify the course instructor prior to the absence. The student is responsible for obtaining all material they have missed. All tests missed may be made up at the discretion of the instructor. It is the student's responsibility to approach the instructor to plan for any makeup work. Additionally, all students are expected to be punctual and on time. Lateness of greater than five minutes is considered an unexcused absence. It is the student's responsibility to inform their instructor – not the Program Director – that he or she will be late for class. Informing another student, to then in turn inform the instructor, does not constitute appropriate notification.

Student Clinical Attendance

Regular attendance in assigned clinical rotations is mandatory. Attendance in clinical rotations is critical to obtain the knowledge and skills necessary for practicing as a Radiologic Technologists. Clinical outcome objectives and schedules include days and evenings. Student's clinical schedules are organized so the student radiographer can obtain a wide variety of educational experiences during the twenty-four-month program to meet outcomes for graduation.

You must remain in scheduled area during scheduled hours. You cannot leave scheduled area early without proper authorization. The only personnel authorized to allow early dismissal are the education coordinator, clinical instructors, or coordinator/in charge technologist (in the absence of a program faculty member). No other personnel may allow you to leave early.

Anytime you are leaving your assigned clinical area early, you must contact the Radiography Program Office and leave a message with program personnel or on the voice mail before leaving. This is your responsibility and must be done or the absence will be unexcused. Failure to adhere to the attendance policy will constitute corrective action.

Contacts

Dee Ann Vanlandingham
Dee.Vanlandingham@DaytonaState.edu
(386) 506-3399

Carrie Regoli
Carrie.Regoli@DaytonaState.edu
(386) 506-3302

Contacting Clinical Areas

In the case of illness or emergency, the student must notify the clinical instructor and scheduled clinical site prior to assigned clinical time. Failure to contact both areas will result in corrective action.

A Clinical Contact List will be available to all students and faculty on Trajecsys.

Absences

The following number of excused absenteeism per semester is permitted with no make-up required:

Year/Semester (Months)	Absence Days Permitted from Clinical	Half Day Permitted
Clinical I Summer Semester	1	1
Clinical II Fall Semester	2	1
Clinical III Spring Semester	3	1
Clinical IV Summer Semester	3	1
Clinical V Fall Semester	3	1
Clinical VI Spring Semester	3	1

The accumulation of any absenteeism beyond the allotted time per semester will result in a loss of percentage points from the clinical grade and/or corrective action. The clinical time missed will require make-up time. The following will be used for the percentage loss and/or corrective action:

# Of Absences Beyond Allotted Days	Action
1 day	5% decrease
2 days	7.5% decrease (oral reprimand)
3 days	10% decrease (written warning)
4 days	suspension

# In One Semester	Action
2 tardy or 1 tardy of more than 1 hour	2.5% decrease (1/2 absence)
3 tardy	3.5% decrease (oral reprimand)
4 tardy	4.5% decrease (written warning)
5 tardy	Suspension

Combined classroom and clinical assignments will not exceed 40 hours during a seven-day week.

Absenteeism of three (3) consecutive days requires a physician's excuse prior to returning to the program.

Attendance records are monitored continuously, and corrective action taken as needed throughout the entire program.

Written notification to the Clinical Instructor for clinical absence in advance for use of an excused absence shall be scheduled and received prior to the absence. In the case of illness or emergency, the student must notify the clinical instructor and scheduled clinical site prior to assigned clinical time. Failure to contact both areas will result in corrective action. Students with accumulated absenteeism in excess of the allotted excused days per semester will be scheduled for make-up time by the Clinical Instructor. All make-up time must be scheduled in advance and posted. The student must request make-up time/date in writing at least 24 hours in advance, one-week advance notice is preferred. Students are not permitted to schedule more than eight hours per day nor have a weekly schedule of greater than 40 hours. Make-up time will be scheduled in area of absence, as possible. Failure to report for scheduled make-up time will be considered as an additional absence and require make-up time. The make-up time required for absence during scheduled make-up time will be double the original amount scheduled to make up. *Example: You are scheduled to make up 2 hours and call in. You will now be required to schedule make-up of 4 hours.*

The student will be marked late if they are not in their assigned clinical area by the scheduled time. If the student is tardy, they will be required to make up the time they missed. The student must notify the clinical instructor and scheduled clinical site of tardiness. Failure to do so will result in corrective action.

You are required to stay in your scheduled clinical area. If you must leave your assigned area for any reason, you are required to inform a technologist. Due to scheduling requirements, and concern over the safety and fairness to our patients and students, you must complete the scheduled clinical time. Example: If you are scheduled from 8 a.m. – 4 p.m. You must remain in the clinical setting until 4pm. We ask that you make every effort to leave at your scheduled time as no overtime is allowed which is not scheduled ahead of time. However, you are to assure that the patient or task you are performing is completed or someone has relieved you before leaving the assigned area. Failure to do so will result in corrective action for negligence of duty and/or leaving assigned clinical area without proper notice/authorization. Please inform a technologist when you are leaving.

Any student requesting to schedule extra clinical time in a particular area to gain increased experience may do so only if this time is scheduled in advance with the Clinical Instructor. This is voluntary and the student will not be granted overtime. This time is for you to gain more experience and you will only be permitted to perform clinical competency exams at the discretion of the clinical instructors.

Clocking In and Out Policy

Daytona State College Radiography students will be responsible for clocking via Trajecsys Reporting System. This will allow faculty to assure that students are present during scheduled clinical time.

The clock records will be reviewed by the faculty to monitor tardiness and absenteeism.

Failure to clock in or out will require the student to provide an explanation on the Trajecsys Reporting System. Due process will be used in cases of non-compliance with this policy.

Failure to clock in and/or out per semester	**Disciplinary Action**
2 times	Oral warning
3 times	Written warning
4 times	Suspension

5 times	Dismissal

Any falsification of attendance/tardiness records will result in corrective action.

Half Day

You must have been in your clinical experience for at least one half of the scheduled time to avoid this counting as a full absence (5% off clinical grade). This half day is permitted once during a semester. Half of the scheduled time is permitted to be taken off with no point deduction or making up of time. Taking an additional half day will result in a 2.5% deduction and the time is required to be made up. An exception to this policy, is an extended illness or family emergency (only excused absences – death of a student's spouse, child, or parent) which requires appropriate documentation, i.e., physician's note, for which make-up arrangements will be made on an individual basis.

An Absence Request Form will be submitted at least one (1) week prior to any scheduled clinical changes.

Absenteeism Due to Death of an Immediate Family Member

In the event of death of a student's spouse, child or parent, the student will be permitted 3 days of excused absence from clinical. This time will not have to be made up. Absence due to the death of a non-immediate family member will be considered excused but the clinical hours missed must be made up.

Inclement Weather

In case of inclement weather –hurricane –in which Daytona State designates travel hazardous and closes the campus, students will not be expected to attend class or clinical that day. If Daytona State is open the student must attend class or clinical that day. If the student does not attend class in the event that Daytona State remains open, both the course instructor and the program director must be notified in advance as with any other absence. The absence will be unexcused.

Holidays

Students will be excused from class for the major designated holidays which are as follows: New Year's Day, Martin Luther King Jr. Holiday, Spring Break, Memorial Day, July 4th, Labor Day, Thanksgiving Holiday (Thursday, Friday) and Winter Break

Clinical Laboratory Participation

In the lab sessions, each student is expected to be an active participant to include verbal, intellectual and physical skills as a member of a learning group. Each student will be used as a "patient" for exercises and radiographic procedures that are being taught. The "Statement of Understanding" form is to be read and signed by all students and will be kept in your student file. If a student has a precaution or contraindication or objection (religious or cultural) to a procedure, then the student will notify the instructor prior to the beginning of class and alternative methods for the group will be developed. The instructor and student will determine the safest method for that student to deliver the treatment procedure in the clinical setting.

Dress Code Policy

All students in the program must maintain a neat, clean, professional appearance on campus and all clinical site premises. In order to ensure compliance with this policy, the Program has adopted the following regulations regarding the dress and personal professional appearance of its student radiographers:

Student Radiographers at Clinical Sites

1. Professional scrub tops must be solid color and of a length cover the hips. The specific color will be determined by the program and scrubs will be ordered through the clinical coordinator.
2. Scrub pants must be solid color determined by the program and must be of a reasonable length to cover top of shoes but not drag on floor.
3. Solid white long sleeved undershirts are permitted but must not hang below scrub top.
4. Solid long-sleeved lab/scrub jacket may be worn for comfort.
5. NO sweaters or non- lab jackets will be permitted.
6. Shoes must be predominately white, black, or grey, or a combination of the three. No canvas sneakers, clogs, high tops or opened toe/heel shoes are permitted.
7. Only solid colors are approved.
8. Daytona State College Radiography Student embroidery will be openly displayed on scrub top and/or lab jacket.
9. The DSC photo identification badge required clinical specific identification badge and radiation monitor must be worn at all times while on clinical site property. The ID badge will not be altered and must be worn above the waist on the upper part of the body.
10. When scheduled in OR, Cardiac Cath or Specials, you will be issued green scrubs to help reduce transmission of disease.

Personal Appearance/Hygiene (infection Control)

1. For sanitary reasons, hair must be tied back if it hangs on or below the shoulders. Only natural hair color/single color is permitted. Hairstyle and color must maintain professional appearance to the discretion of the faculty.
2. To prevent possible injury to the patient/student, prevent artifacts on the radiographic images and minimize the spread of microorganisms, fingernails are to be kept short (no longer than 1/4" beyond the tip of the finger). Nail polish is permitted but must look professional and neat. Pierced nails, artificial nails (to include acrylic, ceramic, gels and fiberglass or silk wraps and nails with jewels) are not permitted.
3. Adornments should be kept to a minimum, i.e., two rings (not large, ornate or with numerous crevices), a watch, one necklace. Bracelets are not permitted. Students are only allowed one pair of small post earrings (one in each ear). All other body piercing must be completely covered or removed. No tongue piercing permitted.
4. Mustaches or beards are not permitted in order to assure appropriate fit of TB masks.
5. All cosmetics must be worn in moderation! No perfumes, colognes, or aftershaves possessing an odor that may be offensive to an ill patient are permitted. Light body lotion may be worn.
6. To protect yourself and family from spread of infectious agents, it is strongly recommended that uniforms and shoes worn in department not be worn after scheduled clinical time.
7. Any tattooing must be covered.
8. Clothing must not be tight, restrictive or form fitting and shall be worn in a fashion that no exposed skin shows between the bottom of the shirt and top of the scrub bottoms.
9. There will be no gum chewing permitted during clinical time.

Eating

NO eating in the classrooms during lectures will be allowed. NO eating or drinking in the Clinical Laboratory during laboratory sessions will be permitted.

Technology

During the lecture or lab sessions, all cell phones will be set to vibrate so that the class is not disrupted. Phones will not be answered in the class or lab space. All of your lecture materials and laboratory sheets will be placed on the corresponding Falcon Online website. Students are permitted to download those materials to a laptop computer/tablet and bring your computer/tablet to class. The computer/tablet is to be only used for classroom purposes. Any evidence of students using computer/tablet for any other purpose will result loss of this privilege and a written warning will be placed in the student's file.

Audio and video recording of lectures and laboratory demonstrations is permitted only with permission of the instructor of record. Students who participate as models during demonstration must give permission as well.

Transportation

Throughout the Radiography Program, it will be necessary for the student to attend clinical sites off the Daytona State College campus. In all cases, it is the student's responsibility to arrange transport.

Professional Liability Insurance

All students are assessed a lab fee in clinical courses to provide for professional liability insurance. Liability insurance coverage is only in effect during the time that the student is formally enrolled in the Radiography clinical course and scheduled by the college to be in the facility.

Health and Safety Requirements

Infectious Disease Statement

While performing student radiographer responsibilities in the clinical facilities, the student may be exposed to environmental hazards and infectious disease including, but not limited to:

Tuberculosis, Hepatitis B, and HIV. The student understands and assumes the risks involved in the clinical portion of the Radiography Program at Daytona State College and agrees to abide by the policies and procedures of each facility regarding exposure to infectious diseases and infection control.

The program's curriculum includes state mandated requirements for HIV/AIDS education and information regarding OSHA's regulations. All students must start the Hepatitis B vaccination protocol or sign the declination waiver form prior to clinical practice. Students are encouraged to complete the six-month series vaccine but are not required for clinical placement. The forms must be completed, signed, and returned to the Program Director. Student Health Forms are completed and submitted prior to starting the program. Health Forms are updated prior to starting the first clinical rotation. It is the student's responsibility to maintain copies of all records submitted and to complete the updated Health Form by the appointed date or they will not be permitted to attend their clinical rotation that may delay their timely graduation.

CPR

All students must have current CPR certification (BLS for Healthcare Providers) prior to and throughout all clinical experiences. There are only two acceptable providers for CPR – American Heart Association and American Red Cross. A copy of the CPR card will be kept in the student's program file. Students will not be allowed to attend clinical training until proof of current CPR certification is provided.

Student Health Form

Student Health Forms will be issued during Orientation to the Radiography program. Completed physicals and immunizations will be due no later than a week before the first day of clinical. The physical will be kept on file in the Radiography program files. Each student is responsible for obtaining a physical, immunizations, and health records and the original will be kept in the Program Director's office. The student is also responsible for updating immunizations (TB) and providing a copy to the Program Director.

Level II Background Check

Students entering any health career program will be required to complete a level two background screening as well as drug testing. A second screening will be required prior in the third semester of the program. A change in the law as of August 2010 (F.S. Chapter 408) significantly modifies the background screening for health care service providers.

Students will not be allowed to participate in clinical if they do not comply with the new requirements. A clinical component must be successfully completed with all health care programs. The cost for the level two screening and drug testing has been approximated at $90.00.

Background Checks Protocol:

1. Complete the request form received
2. Report to designated center for electronic fingerprinting and pay associated fee
3. Complete acknowledgement and consent for release of information
4. Daytona State College receives access to the Level II Background Check
5. Report reviewed by a college representative
6. Report reviewed by committee of School of Health Careers (if positive report.)
7. A Daytona State College designee will contact student with the committee's decision regarding admission

While enrolled in Daytona State College's Radiography program, the student is also responsible for notifying the assistant dean/ program manager of any arrests, regardless of adjudication, that occur after acceptance and during enrollment in the program. Failure to promptly notify the department chair will be grounds for dismissal from the program.

Drug Testing Policy and Procedure

Drug Testing upon Admission to the School of Health Careers Programs

Students will receive instructions for obtaining a drug test with the letter of acceptance to the health career or human services program. Students selected for admission are accepted on a provisional basis pending verification of a negative drug test and successful completion of a level II background check.

Procedure for Drug Testing

Students selected for admission to the health career or human services program will receive instructions for obtaining the drug tests with the letter of admission. Students will be required to follow the procedures established by Certified Background. All costs associated with drug testing are the sole responsibility of the student.

A drug tests will be considered positive if any of the drugs listed in Exhibit A are found. Positives test results will be confirmed by the testing laboratory. A diluted laboratory result must be repeated at the student's expense prior to clinical rotations. The testing laboratory will contact the Department Chair's office regarding student test results and the Department Chair or designee will contact the student.

Drug Testing after Admission

Any student admitted to a health career or human services program will be subject to random drug testing at the discretion of the health career or human services faculty or dean upon request. All costs associated with testing are the sole responsibility of the student. Health Career or human services students who demonstrate behavioral changes in a classroom, clinical, externship, or laboratory setting may be asked to complete drug testing if the behavior is presumed to be related to the use of drugs or alcohol. The Health Career or Human Services faculty member or preceptor will notify the student and the Program Manager or Academic Coordinator of Clinical Education (ACCE) of the suspected behavior. The student will be asked to leave the clinical, externship, or laboratory area and go with a faculty member to discuss the matter. If the decision is to refer the student for drug testing, the student must report immediately to the testing area. The student will be suspended from all clinical, externship, or laboratory activity until the matter has been reviewed by the Program Manager/ACCE or if the student refuses drug testing. If the drug screening results are negative, the student will be allowed to continue in the classroom, clinical, externship, or laboratory activity without penalty. If the drug screening test is positive, the student will have an opportunity to present their response to the positive test result to the faculty member. The faculty member will make a recommendation to the Program Manager/ACCE regarding the student status in the program. The Program Manager/ACCE is authorized to make an academic decision which will include immediate termination from the Health Career or Human Services program. The Program Manager/ACCE may also refer any student who violates this policy to the Judicial Affairs Office for additional college disciplinary action.

Exhibit A

The following lists of drugs are not all inclusive however typically represent substances monitored for health care workers:

- Alfentanil
- Butorphanol (stadol)
- Fentanyl
- Ketamine
- MDMA (ectasy)
- Nalbuphine (Nubain)
- Sufentanil
- Tramadol
- Alcohol
- Amphetamines

- Barbiturates
- Benzodiazepines
- Cannabinoids
- Cocaine
- Methdone
- Opiates
- Phencycidine
- Propozyhen

Health Insurance

Students are responsible for obtaining their own medical insurance and providing for their own medical care. The following procedure is to be followed in case of a needle stick, blood exposure, or other accident in the classroom or clinical area.

1. The student should notify the clinical instructor and program director.
2. A facility incident report as well as a Daytona State College Campus Safety Incident Report should be completed with a copy for the student, the student's campus file, and the instructor as well as the facility and Daytona State College. The student may be required to complete the Daytona State College Incident Report.
3. If the student is sent by the clinical site to Employee Health or the Emergency Room, the student is financially responsible. Students may prefer to choose their own facility if they are the payee.

Students are responsible for obtaining their own medical insurance and providing for their own medical care. Students will provide a copy of their insurance card to the Program Director and ACCE upon starting the program in May.

Students with Disabilities

If you need academic accommodations, such as private testing, interpreters, note takers, etc. you must provide the lecture instructor a current letter from Student Disability Services (SDS) that verifies that you need specific accommodations. Please make an appointment to meet with the instructor as soon as possible to discuss the accommodations. Faculty cannot give accommodations until you provide a letter from SDS. Please do not provide copies of any medical information to your instructor.

For information about accommodations or services that may be available for students with a disability, please contact the Student Disability Services office in the Wetherell Building Annex, room 108, or at (386) 506-3814.

Sexual Harassment

The Radiography Program follows the Daytona State Policy on Sexual Harassment. The Sexual Harassment policy can be found in the College Student Handbook you received at the program orientation. While participating in clinical courses complaints of sexual harassment should be reported immediately to the Radiography Program Director. The student should also follow the clinical facilities policy for reporting sexual harassment.

Communicable Disease Policy

All students will receive thorough instruction on communicable diseases such as AIDS, Tuberculosis, meningitis, MMR, Hepatitis B, etc. throughout the program. It is the program's intention to inform all students of the possible potential for acquiring such conditions.

When or if a student is identified as being infected with any communicable disease, the following steps are to be taken to ensure the health of the Daytona State community, and of the patients with whom the student would be in contact. This policy is also designated to protect the student who is infected.

1. The student must notify the program director in writing and verbally of the disease contracted and his/her physician's name and number. The student will not be allowed to attend class or clinical at this time.
2. The program director will contact Campus Safety.
3. Campus Safety will confer with appropriate public health officials.
4. The program director will contact the student as to when the student may return to campus or the clinical facility in accordance with Campus Safety recommendation.
5. The student will supply the program director and ACCE documentation from the treating/advising physician that he/she may return to campus or the clinical facility.

Every effort will be made to work with the student to keep the student current with his/her classes or clinical rotation.

Statement on AIDS, Hepatitis &other Communicable Diseases

The faculty and students of the Radiography program recognize that it is very important that the UNIVERSAL PRECAUTIONS for the prevention of the transmission of AIDS, Hepatitis and other communicable diseases be understood and practiced at all times. It is essential that everyone be protected (the healthcare worker and the patient). Commonly identified areas requiring the use of universal precautions are:

- Wound care, debridement
- Handling soiled linens
- Working with catheters, lines and/or tubes
- Cleaning body fluids from equipment and hands
- Applying first aid and/or CPR

1. **BARRIER PRECAUTIONS** – Wearing protective clothing
   Purpose: To prevent the exchange of body fluids.
   Action: Gloves, masks, and/or gowns should be worn when there is contact with body fluids.
2. **WASHING** – Use traditional cleaning agents
   Purpose: To sanitize the contaminated area immediately.
   Action: Wash hands or other skin surfaces that may be contaminated with blood or other body fluids. Wash hands immediately after removal of gloves. (Wash hands prior to and immediately after client contact). When water is not available for washing, use antiseptic. Decontaminate all areas that have been contaminated with blood by using a 1:10 dilution of household bleach and water. Dispose of all contaminated items in plastic disposable bags.
3. **PREVENTION OF INJURIES**
   Purpose: To minimize the opportunity for contamination, by elimination of skin lesions.
   Action: Disposal of sharp objects in puncture-resistant containers
4. **EMERGENCY RESUSCITATION**
   Purpose: To minimize the mouth-to-mouth saliva contamination.
   Action: Secure mouthpieces, resuscitation bags, and other ventilation devices for use in case of emergency.

Campus Safety

Daytona State helps you maintain your personal safety by sharing information you can use to reduce your chances of becoming the victim of a crime or accident. We believe that an informed college is a safer college. The information provided by Campus Safety is designed to inform, advise, and alert you about Daytona State policies and procedures on crime awareness and reporting. Please take time to familiarize yourself with this information. It will help you contribute to the College's efforts to create and maintain a safe environment in which we can live, study, and work. Located at all Daytona State campuses, our friendly and helpful Campus Safety officers are available for information, assistance, and service. Officers receive training in Conflict Resolution, Emergency Response, CPR/First Aid & Handling Medical Emergencies as well as the protection of campus personnel and property. Do not hesitate to contact Campus Safety whenever you need help or more information about one of our services.

Report suspicious or criminal activity to our Daytona State College Confidential Hotline (386) 506-4500. All calls will be investigated.

Important Telephone Contacts

- Off-Campus Emergency, Police, Fire, Ambulance: 9-911
- On Campus Emergency (Daytona State): Extension 4444
- Daytona Beach Police Department: (386) 248-1777
- Edgewater Police Department: (386) 424-2425
- DeLand Police Department: (386) 734-1711
- Volusia County Sheriff's Department: (386) 736-5999
- Flagler County Sheriff's Department: (386) 437-4116
- Florida Highway Patrol: 1-800-226-5350
- Victim's Advocate Office: (386) 239-7720

Non-Emergency Telephone Numbers

- Daytona Beach Campus: (386) 506-3000
- DeLand Campus: (386) 785-2000
- Deltona Center: (386) 789-7241
- New Smyrna Beach/Edgewater Campus: (386) 423-6300
- Flagler/Palm Coast Campus: (386) 246-4800
- Advanced Technology Center: (386) 226-4100
- Halifax Hospital: (386) 254-4000
- Ormond Beach Hospital: (386) 676-6000
- Florida Hospital Fish Memorial: (386) 851-5000
- Bert Fish Medical Center: (386) 427-3401
- Florida Fish Hospital, O.C.: (386) 917-5000

Videotaping/Audiotaping and Digital Photography

As students, you will be simulating a work environment and will practice on one another and may be videotaped. Digital pictures of students performing techniques may also be taken for posting on the website. **The videotapes and digital pictures are used for teaching and grading purposes only.** You will be asked to sign a permission form to allow videotaping/audiotaping and digital photography.

Student Records

The Radiography program complies with the same legal guidelines as the college in governing the release of student educational records. A file on each current Radiography student's academic and clinical skills progress will be maintained in a file cabinet in the office of the Radiography Program Director. Only the Radiography Program Director and Department Chair have a key to this office. It may be released only to a Radiography faculty member and/or Dean upon request. A student may have access to his own file. Students, 18 years or older, must authorize, in writing, their permission to share information with parents or other individuals outside the Daytona State faculty or administration.

Following graduation, student files are maintained in either the Program Director's office or in a locked file cabinet in Bldg. 320, Rm. 129. They will be kept for 5 years and subsequently destroyed. The only record maintained beyond 5 years, is an official transcript, which may be requested through the Records Office.

Confidentiality

It is not ethical to share information with other individuals regarding patients/clients, facilities, clinical instructors, or classmates. This includes placing the patient's name or other identifying item on case reports, class presentations, etc.; failing to obtain written permission to utilize pictures or videos of a patient in presentations or talking about patients to your classmates. Violation of this ethic by the student, may result in probation or withdrawal from the Radiography Program. All students are expected to follow HIPAA guidelines for confidentiality.

Employment as a Radiographer

The Radiography Program receives many employment inquiries directed at our graduates. These are routinely forwarded to class cohorts via email.

In addition, the Radiography faculty has given permission to graduates to use faculty names as references. However, we prefer not to be used as reference if it has been more than two years since graduation unless the graduate hasn't held a job in that time.

Complaints

Complaints regarding the program or the program graduates should be addressed to the Radiography Program Director. Unresolved complaints or complaints about the Program Director should be addressed to the Department Chair of Health Careers. All complaints will be documented, including the projected outcome, and kept on file at the program facility. Complaints regarding Accreditation of this program should be directed to the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wicker Dr., Suite 2850, Chicago, IL 60606-3182. Phone: 312-704-5300 Fax: 312-704-5304 and Website: Joint Review Committee, mail@jrcert.org and www.jrcert.org.

Clinical Education Policies and Procedures

The clinical component of the Radiography program allows the student the opportunity to apply skills acquired in classroom and laboratory settings in the clinical setting. It is this area of the Radiography program that gauges the appropriateness of professionalism and ethical behavior of the student. While in the clinical setting the student will have guidance from a clinical instructor who will rate the student's ability to apply learned skills, employ professional methods, understand ethical behavior, and learn new skills openly. The grade for the clinical rotation will be calculated by Daytona State College's ACCE (Academic Coordinator of Clinical Education, faculty member) with input from the clinical instructor.

The following is an overview of the policies and procedures for your clinical rotation.

Clinical Competency Explanation and Instructions

After completion of the classroom and laboratory instruction in a radiographic procedure, the student radiographer may begin performing that procedure under the direct supervision of a registered technologist.

When the procedure has been performed frequently without assistance, the student may request a clinical competency evaluation. If the overall score for the evaluation is above 85%, the student will be considered competent to perform that procedure with indirect supervision. Direct supervision is still required on all repeats or if the procedure is a mobile exam. If the student fails to achieve an 85%, they will be assigned a specific number of additional procedures in the area of weakness and the evaluation will be repeated at a later date. Students who fail the 2nd competency exam may be placed on clinical probation.

The highest achievable score on the repeat evaluation is 85%.

Students will be expected to complete the minimum number of competencies per the stated semester deadlines.

By the completion of the program, the student must have passed all mandatory and the required number of elective procedures and must perform final (terminal) competency evaluations for each of the major categories and receive a minimal score of 85% per evaluation.

Sequence for Clinical Education

1. Classroom instruction in anatomy and procedures
    a. Lecture
    b. Demonstration
    c. Written/Oral Exam
2. Lab practice (peer positioning)
    a. Demonstration
    b. Peer positioning
    c. Oral Review of material
    d. Lab Practical Exams
3. Clinical Practice
    a. Observe and assist radiographers in the performance of procedures
    b. Perform procedures under direct supervision of a radiographer and record on clinical experience form
    c. Receive an 85% or above on a clinical competency exam

d. Continued practice of competency test exams for continued competency.

Competency Exams Without Student's Lead ID Markers

It is the policy of the Radiography Program that competency exams cannot be performed in the clinical setting without the use of the student's own markers.

Any student without markers must notify the clinical instructor and request to borrow markers to be used until they have received a new marker set.

Final Competency Evaluations

In order to document continued competency in each major category, during the final semester, the graduate student radiographer is required to complete at least 1 exam from each major category.

Clinical faculty will review all final competencies with student radiographers.

Each final competency must be passed with a score of 85% or better. Any exam scoring less than 85% will be repeated with the highest achievable grade on the repeat being 85%.

Under NO circumstances will the student be given the option of discontinuing a final competency. The clinical preceptor/evaluators may exercise their judgment in discontinuing an exam if the patient's condition warrants.

Failure to complete final (terminal) competencies by the stated deadline will result in delay in program completion.

Clinical Competency Evaluation Form

Supervision Radiographer: Please fill out all bolded areas. **Date** _____

Student _____ **Evaluator** _____
Procedure _____ **Room #/Mobile** _____
Patient Name _____ **V#** _____

Trauma _____ **Comp** _____ Final **Comp** _____ **Repeat Comp** _____

Point Scale: N/A = not applicable, 0-2 = unacceptable; does not meet expectation, 3-5 = below standards; processing but less than adequate, 6-7.5 = meets standards; satisfactory performance, 8 = exceeds standards; exemplary performance

Performance Evaluation

1. Efficient Use of Time & Energy		**7. Equipment Operation**	
2. Requisition/Orders Evaluation		**8. Standard/Transmission-Based Prec.**	
3. Patient Assessment/Hx		**9. Principles of Radiation Protection**	
4. Patient Communication (appropriate for age/status)/ sensitive to patient needs		**10. Works Efficiently with MD/RT/RN, etc.**	
5. Physical Facility Readiness/ Prepare patient (removal of artifacts)		**11. Contrast Prep/Administration**	
6. Patient Care Age Specific **Check Age Range:** **____ Neonate (0-<1 yo)** **____ Pediatric (1-6 yo)** **____ Adolescent (7-17 yo)** **____ Adult (18-64 yo)** **____ Older Adult (>65 yo)**		**Total _____**	

Projections									
Technique Used	**kVp:** **mAs:**	**kVp:** **mAs:**	**kVp:** **mAs:**	**kVp:** **mAs:**	**kVp:** **mAs:**	**kVp:** **mAs:**	**kVp:** **mAs:**	**kVp:** **mAs:**	**kVp:** **mAs:**
S-Value, EXI, or DI Value									

Image Evaluation (to be completed by Daytona State College faculty)

Projections															
1. Alignment															
2.Positioning															
3. Technique (EXI #)															
4. Correct Tag															
5. Image Orient.															
6. Marker															
7. Rad. Prot.															
8. Image Critique															
9. Anatomy															
Total Perf.															

Total Points Earned _____ Total Points Possible _____ = _____%
Subtract 5% for each repeat _____
Final Grade _____% Rev. 11/18

Comments:

Student Radiographer Signature _____ **Date** _____

Performance Outcome Evaluation

The student was able to perform the procedural tasks in an efficient and timely manner demonstrating organizational skills and proper body mechanics in accordance with their level in the program under direct supervision of the clinical evaluator.

The student was able to evaluate the physician's orders, requisition and identify the patient's name, age, mode of transit, exam(s) ordered, verify reason for exam(s), note pathologic conditions, chart history, assure the appropriate informed consent is complete, correct errors prior to performing exam while adhering to patient rights and HIPAA requirements. The student was able to perform exam regardless of patient age, cultural background, or condition.

The student maintained their assigned clinical room and assured the room was properly prepared prior to the procedure(s) to include cleanliness, stocking, equipment set-up, tag selection, technique selection prior to procedure, preparation and administration of contrast agent and utilized equipment in a safe manner.

The student properly identified the patient prior to the procedure (with 2 ID checks), reviewed the patient's chart/physician's orders and educated the patient concerning the procedure giving clear instructions at a level appropriate to the patient's age/status and in a professional manner. Proper standard and/or transmission-based precautions were followed; the patient was moved assuring their safety with the use of proper body mechanics and equipment. The patient's prep was reviewed for appropriateness, problem areas were identified and corrective actions taken, an accurate history was documented including contraindications for the procedure, safe storage for patient valuables was provided following medical center policy, patient safety from electrical or mechanical hazards was provided, patient was not left unattended during exam, communicated with patient throughout procedure, and questioned females in child-bearing years between 12 and 50, if they might be pregnancy using proper discretion and professional communication with documentation follow-up.

The student utilized the appropriate radiation protection for patient and staff following ALARA guidelines, the imaging room door remained closed during exposures and/or persons in the vicinity of the patient were requested to move away from the source prior to exposure, utilized appropriate lead shields, wore monitoring badge at collar level and outside Pb apron, declared pregnant student wore fetal monitor at level of waist and under the Pb apron, provided appropriate beam restriction.

The student performed the tasks efficiently when working as a team member with the radiologist/physician and staff, provided appropriate assistance during the exam, used professional communication, made independent judgments in problem solving, remained in the room as appropriate during the procedure utilizing principles of radiation protection during the procedure, provided assistance to the patients and introduced the radiologist as appropriate.

Image Evaluation

The student properly aligned the part, image receptor and CR using appropriate landmarks and positioning aids, centered the part to the image receptor accurately and assured proper alignment of the patient.

The student accurately positioned the patient according to the requirements of each projection using appropriate landmarks, correctly oriented image, including upright, recumbent, or seated positions, used correct patient/source angles per projection, provided beam limitation for radiation protection and image quality, and utilized appropriate SID. Compensated as necessary.

The student determined appropriate technical factors with consideration given condition, age, type of contrast agent; referred to appropriate technique chart; compensated as required for age, condition; adapted exposure factors as required; and, properly used image receptor, grid, compression, receptor holder, etc.

The student selected the proper equipment and accessory devices for exam, used appropriate immobilization as needed, operated equipment in a safe manner, reported malfunctions as needed, pre-set technical factors, maneuvered equipment around the patient in a safe manner, utilized control panel, image acquisition station and PACS workstation with accuracy, adhered to HIPAA guidelines and followed safe guidelines for equipment operation.

The student properly displayed lead markers in light/radiation field without compromising anatomy, used appropriate lead markers with initials, selected correct tag, portable marker, etc. on the image in proper location out of anatomy.

The student provided appropriate amount of beam restriction without compromise to the anatomical structures of interest and provided the appropriate specific area shielding. If an individual was used to hold the patient, proper shielding and instructions were provided according to DOH, NCRP & CFR standards.

The images were of high quality with regards to appropriate density/brightness, contrast, and spatial resolution. The anatomical structures of interest as well as pathological conditions were included. Technical and positioning compensations were used to display patient information.

The student identified all anatomy of interest included on the image, appropriately evaluated image for adequate quality including anatomical structures demonstrated, density/brightness, contrast and spatial resolution, artifacts; image identification was contained on the image; and correct measures were taken using critical problem-solving skills to improve image quality.

Note: Required image evaluation per exam is reviewed with students in positioning class and labs prior to performance of exams in clinical setting.

Competency Simulation

Name _____ **Procedure** _____

Date _____

Evaluation Scale

Point Scale: N/A = not applicable, 0-2 = unacceptable; does not meet expectation, 3-5 = below standards; processing but less than adequate, 6-7.5 = meets standards; satisfactory performance, 8 = exceeds standards; exemplary performance

1. Efficient Use of Time & Energy	
2. Professional Communication	
3. Radiation Protection	
4. Knowledge of Routine	
5. Physical Facility Readiness	
Total Points	

Evaluation Criteria

6. Selected proper image receptor size					
7. Appropriately oriented image receptor					
8. Properly positioned patient/part					
9. Selected appropriate technical factors					
10. Properly located and angled CR					
11. Provided appropriate radiation protection					
12. Used appropriate accessory devices					
13. Identified required anatomy					
14. Image critique					
15. Projection analysis					
Total Points					

Total Points Earned _____

Total Points Possible _____

Final Grade _____

Student Radiographer Signature _____ **Date** _____

Projection Analysis

1. Patient/Part Position (to include what lines are perpendicular and parallel):

2. CR:
    a. Direction and angulation –
    b. Entrance point –

3. Technical Factors:
    a. IR/type –
    b. Control panel settings –

4. Structures Shown:

Clinical Grading Policy

A minimum number of competencies will be assigned for each semester. The percentage score on the clinical competencies and attendance will constitute 85% of the clinical grade. The Clinical Preceptors will complete professional development (affective evaluations) on each student. The affective portion of the clinical grade is 15%. Staff Technologists will complete personal development assessments each semester that will be used as input only.

Clinical Competency Evaluations & Attendance	85%
Professional Development (Affective)	15%

If during any semester, the student fails to perform the minimum competency requirements by the date indicated at the beginning of each semester, this may result in forfeiting vacations and holidays. In addition, the highest grade achievable on each late competency is an 85%. If the student fails to complete the required competencies by the end of the semester the student may be given an incomplete (I) grade and will not be able to register for subsequent courses until the required competencies have been completed.

The student must inform the clinical personnel before starting a competency. Once the competency has begun, only the clinical evaluator can terminate the competency.

Affective Behavioral Objectives

Purpose

The affective domain instills professional values in the student radiographer. The student radiographers will be evaluated in this domain throughout the entire Radiography Program and the assessment will be based on the level within the program and the stated objectives.

Objectives

The student radiographer will act in a professional manner in the performance of their clinical assignments and shall be able to:

1. Demonstrate comprehension of knowledge and required clinical responsibilities.
2. Carry out clinical assignments with high standards of patient care, honesty, integrity, and confidentiality.
3. Value the quality of their performance.
4. Follow through on assignments accurately and thoroughly.
5. Document neatly, accurately and with confidentiality all pertinent patient data collected during assessment.
6. Respect their peers, supervisors, and patients.
7. Complete assignments in a timely and organized manner.
8. Perform duties in an ethical manner.
9. Communicate in a professional and respectful manner.
10. Instill confidence in their patients.
11. Work in stressful situations while maintaining professional and positive manner.
12. React positively to constructive criticism.
13. Complete tasks and accept responsibilities in a self-motivated manner.
14. Use sound judgment in performance of assignments and communications with peers, supervisors, and patients.
15. Maintain high standards of attendance.
16. Present a professional image in adherence to the established dress code and personal appearance policies.
17. Practice professional ethics including integrity and loyalty when developing moral judgments.
18. Perform clinical exams demonstrating compassion and empathy for the patients.
19. Adhere to patient rights and HIPAA guidelines.

The Clinical Instructors will evaluate the students in this domain. Each semester a professional development evaluation (affective evaluation) will be completed by the clinical instructors and reviewed with the students.

The professional development evaluation constitutes 15% of your clinical education grade.

Professional Development Assessment (Affective Evaluation)

Name _____ **Area** _____
Date _____ **Eval Period** _____

Evaluate the student on their abilities and consider the length of time in the program.

1. COMPREHENSION (Understanding of information, responsibilities, procedures, materials, equipment, and techniques required to perform tasks)

   _____ Demonstrates comprehensive knowledge (3)
   _____ Demonstrates above average knowledge (2)
   _____ Demonstrates average knowledge (1)
   _____ Demonstrates lack of knowledge (0)

2. QUALITY (Accurate, thorough, neat)

   _____ Consistently accurate (few errors) (2)
   _____ Satisfactory work (can recognize and correct errors) (1)
   _____ Poor work quality (repeated errors) (0)

3. ORGANIZATION (Uses time constructively and productively)

   _____ Consistently organized, able to work independently (2)
   _____ Requires only occasional instructions, mostly independent (1)
   _____ Difficulty in organization and completion of procedures (0)

4. QUANTITY (Volume of work accomplished)

   _____ Consistently does more work than expected (2)
   _____ Completes appropriate amount of work (1)
   _____ Completes very few procedures (0)

5. RADIATION SAFETY (Applies radiation protection for self when performing images)

   _____ Consistently applies theories of radiation safety (2)
   _____ Usually applies theories of radiation safety (1)
   _____ Needs to be reminded to apply theories of radiation safety (0)

6. ALARA (Applies safe radiation practices with patients and peers)

   _____ Consistently applies theories of radiation safety (2)
   _____ Usually applies theories of radiation safety (1)
   _____ Needs to be reminded to apply theories of radiation safety (0)

7. COMMUNICATION/PATIENT CARE SKILLS (Ability to interact with patients and provision of appropriate patient care)

   _____ Proper communication and appropriate care of patient, instills confidence (2)
   _____ Minimal communication with patient but provides appropriate care of patient, responds to requests only (1)
   _____ No communication with patient, avoids active patient contact and minimal care of patient (0)

8. COMMUNICATION/WITH PEERS OR SUPERVISORS (Ability to interact with personnel)

   _____ Well thought of by others, tactful and diplomatic (3)
   _____ Uses average amount of tact and diplomacy (2)
   _____ Sometimes rude, curt, or arrogant; should be more considerate and tactful (1)
   _____ Consistently interacts poorly with others (0)

9. PERFORMANCE UNDER PRESSURE (Ability to handle pressure and remain calm in busy or crisis situations)

   _____ Exceptional ability, always remains calm (3)
   _____ Displays moderate amount of tolerance, seldom loses control (2)
   _____ Easily irritated, occasionally loses temper (1)
   _____ Cannot handle pressure situations (0)

10. INITIATIVE (the energy and motivation displayed in starting and completing tasks)

    _____ Very self-motivated, accepts responsibilities and seeks additional work (3)
    _____ Usually motivated, works well when given responsibilities (2)
    _____ Works only with encouragement (1)
    _____ Puts forth little effort (0)

11. JUDGEMENT/REASONING SKILLS (the ability to reason, interpret and use discretion in carrying out assignments)

    _____ Uses sound reasoning and independent decision-making skills (3)
    _____ Reasons and makes judgments in satisfactory manner (2)
    _____ Slow and illogical decision making (1)
    _____ Unable to reason or make judgments (0)

12. ATTENDANCE/PUNCTUALITY

    _____ Adhered to attendance guidelines (3)
    _____ Slightly over guidelines (one excessive absence or tardy) (2)
    _____ Excessively late or absent (two excessive absences or tardiest) (1)
    _____ Consistently absent or late (over two excessive absences or tardiest) (0)

13. PROFESSIONAL APPEARANCE (grooming, cleanliness, and appropriate attire to include radiation monitor and ID badge)

    _____ Consistent professional image, adheres to dress code, wears radiation monitor and ID badge (2)
    _____ Satisfactory appearance, needs to be reminded of dress code and to wear radiation monitor and/or ID badge (1)
    _____ Careless about personal appearance including not wearing radiation monitor (0)

14. PROFESSIONAL ETHICS (integrity and professional judgment)

    _____ Consistently conducts self in professional manner, adhering to professional standards (3)
    _____ Usually conducts self in appropriate manner, adheres to professional standards (2)
    _____ Often does not follow professional standards (1)
    _____ Consistently unprofessional (0)

15. REACTION TO CRITICISM (ability to accept constructive criticism)

    _____ Consistently accepts constructive criticism well, very positive attitude (2)
    _____ Sometimes does not react to constructive criticism well (1)
    _____ Negative attitude, does not accept constructive criticism well (0)

Total Points _____

Comments:

Evaluator Signature _____

Student Radiographer Signature _____ **Date** _____

Professional Development (Affection) Evaluation: Reviewed and Revised 11/2020

Psychomotor Evaluation Clinical

Name _____ **Semester** _____

Standards Measured	Meets Standards	Does Not Meet Standards (Requires Improvement)
1. Practices radiation safety to protect patient, self, and others.		
2. Wears radiation monitor at the collar level and outside lead apron, if applicable.		
3. Documents patient identification and history as appropriate for procedure.		
4. Educates patient/guardian about the procedure to include pre and post procedural instructions.		
5. Communicates with patient/guardian throughout procedure in a professional manner and at the appropriate level.		
6. Recognizes and responds to the needs of patient based on age, gender, culture, and level of comprehension.		
7. Provides patient care to assure safety and comfort.		
8. Provides safety for patient and self throughout procedures.		
9. Positions patient to produce quality images.		
10. Utilizes equipment in a safe and efficient manner.		
11. Applies appropriate patient immobilization and accessory equipment (i.e., sponges, etc.)		
12. Selects appropriate technique to provide quality image following ALARA principles.		
13. Accurate image identification and markers are placed on images.		
14. Completes imaging in a timely manner following institutional protocols.		
15. Identifies pertinent anatomy on images.		
16. Critiques images to assure quality.		
17. Applies didactic and lab knowledge in clinical setting.		
18. Applies Professional Ethics in dealing with patients and staff in the clinical setting.		
19. Adheres to patient confidentiality and privacy standards.		
20. Demonstrates critical thinking problem solving skills in the clinical setting.		

Clinical Grade _____

Comments:

Instructor(s) Signature _____ **Date** _____

_____

Student Radiographer Signature _____ **Date** _____

Student Supervision Standards

Purpose

The Radiography Program must adhere to the JRCERT Standards for an Accredited Educational Program in Radiologic Sciences to maintain its accreditation status. The Florida DOH Radiologic Technology Program only recognizes educational programs meeting or exceeding the standards set forth by the JRCERT.

It is a primary goal of the Daytona State College Radiography Program to consistently exceed these standards.

To protect our patient population from unnecessary radiation exposure.

Standard 5

5.4 The program assures that medical imaging procedures are performed under the appropriate supervision of a qualified radiographer.

Explanation

Appropriate supervision assures patient safety and proper educational practices.

The JRCERT defines direct supervision as student supervision by a qualified radiographer* who:

- reviews the procedure in relation to the student's achievement,
- evaluates the condition of the patient in relation to the student's knowledge
- is physically present during the conduct of the procedure, and
- reviews and approves the procedure and/or image.

Students must be directly supervised until competency is achieved. Once students have achieved competency, they may work under indirect supervision.

The JRCERT defines indirect supervision as student supervision provided by a qualified radiographer who is immediately available to assist students regardless of the level of student achievement.

Repeat images must be completed under direct supervision. The presence of a qualified radiographer during the repeat of an unsatisfactory image assures patient safety and proper educational practices.

Students must be directly supervised during surgical and all mobile, including mobile fluoroscopy, procedures regardless of the level of competency.

Once a student has demonstrated competency, which is denoted by an X next to the category on the student clinical records (the students also must take the responsibility to notify the radiographers of their status), students can perform exams under indirect supervision.

Qualified Radiographer – A radiographer possessing ARRT certification or equivalent and active registration in the pertinent discipline with practice responsibilities in areas such as patient care or administration.

Patient Identification Verification

All students are required to have a registered technologist verify correct patient and exam prior to imaging and prior to releasing all patients. Failure to comply will result in corrective action.

Technologist Evaluation

Technologist Evaluation will be performed by the student at the end of the student's clinical rotation.

Technologist _____ **Date** _____

Mark an "X" in the appropriate box for each category. Please N/A if not applicable.

Rating Scale: 5 = Excellent
4 = Above Standards
3 = Acceptable
2 = Below Standards
1 = Unacceptable

Category	5	4	3	2	1
1. Proper Supervision					
2. Assists student in proper positioning of patient					
3. Aids in selection of proper technical factors					
4. Assures use of proper radiation safetytechniques					
5. Assists student in proper patient care					
6. Critiques student images for quality and correctidentification					
7. Aids student in proper prep and use of contrastmaterials					
8. Instructs student in clerical requirements					
9. Performs in professional manner					

Comments:

Student Evaluator _____

Clinical Experience Documentation Form

Students are required to complete clinical documentation forms to meet ARRT requirements.

Student Name _____ **Date** _____

PT ID Number	Exam	Projections	Observed	Aided	Performed	Repeats/Causes

Clinical Update Form

Clinical Update Forms will be provided to the student at midterm each semester.

Student Name _____ **Date** _____

Semester _____

Required Comps to Complete This Semester:

Comps Completed So Far:

Average Comp Grade Thus Far:

Allotted Absences:

Absences Taken:

Tardies:

Leave Early Allotted:

Leave Early Used:

M/U Time:

Clock In/Out Missed:

Class Absent Days Allotted:

Class Absent Days Utilized:

Notes:

IMAGING PROCEDURE	Mandatory or Elective	Date Completed	Grade	Patient or Simulated	Verified By		Final Comp Date	Final Comp Grade	Verified By
Chest and Thorax									
Chest Routine	M								
Chest AP (Wheelchair or Stretcher)	M								
Ribs	M								
Chest Lateral Decubitus	E								
Sternum	E								
Upper Airway (Soft Tissue Neck)	E								
Sternoclavicular Joints									
Upper Extremity									
Thumb or Finger	M								
Hand	M								
Wrist	M								
Forearm	M								
Elbow	M								
Humerus	M								
Shoulder	M								
Trauma Shoulder (ScapularY, Transthoracic or Axillary)*	M								
Clavicle	M								
Scapula	E								
AC Joints	E								
Trauma Upper Extremity (Non- shoulder)*	M								
Lower Extremity									
Toes	E								
Foot	M								
Ankle	M								
Knee	M								
Tibia-Fibula	M								
Femur	M								
Trauma Lower Extremity	M								
Patella	E								
Calcaneous (Os Calcis)	E								
Final Competency for Upper Extremity Section must include 3 procedures and one must be shoulder or shoulder girdle. Final Competency for Lower Extremity Section must include 2 procedures.									
Head *(must select at least 1 elective from the Head Section)*									
Skull	E								
Facial Bones	E								
Mandible	E								
Temporomandibular Joints	E								
Nasal Bones	E								
Orbits	E								
Paranasal Sinuses	E								
Spine and Pelvis									
Cervical Spine	M								
Thoracic Spine	M								
Lumbar Spine	M								
Cross-Table (Horizontal Beam) Lateral Spine (Patient Recumbent)	M								
Pelvis	M								
Hip	M								
Cross-Table (Horizontal Beam) Lateral Hip (Patient Recumbent)	M								
Sacrum and/or Coccyx	E								
Scoliosis Series	E								
Sacroiliac Joints	E								
Final Competencies: Must include a competency from the head, pelvic girdle, and a competency of a complete spine (C, T or L).									
Abdomen									
Abdomen Supine (KUB)	M								

Abdomen Upright	M								
Abdomen Decubitus	E								
Intravenous Urography	E								
Fluoroscopy Studies – Candidates must select two procedures from this section and perform per site protocol									
Upper GI Series (Single or Double Contrast)	E								
Barium Enema (Single or Double Contrast)	E								
Small Bowel Series	E								
Esophagram (Barium Swallow)									
Cystography/Cystourethrography	E								
ERCP	E								
Myelography	E								
Arthrography	E								
Hysterosalpingography	E								
Mobile C-Arm Studies									
C-Arm Procedure (Requiring Manipulation to Obtain More Than One Projection)	M								
Surgical C-Arm Procedure (Requiring Manipulation Around a Sterile Field)	M								
Mobile Studies									
Chest	M								
Abdomen	M								
Upper or Lower Extremity	M								
Pediatrics (age 6 or younger)									
Chest Routine- 2 views	M								
Upper OR Lower Extremity	E								
Abdomen	E								
Mobile Study	E								
Geriatric Patient (at least 65 years old and physically or cognitively impaired as a result from aging)									
Chest Routine – 2 views	M								
Upper OR Lower Extremity	M								
Hip or Spine	E								
Final Competencies: Must include a competency from the Abdomen, Fluoro, Mobile, Pediatric, and Geriatric									

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

General Patient Care	Date Completed	Competency Verified By
CPR/BLS Certified		
Vital Signs- Blood Pressure		
Vital Signs- Temperature		
Vital Signs-Pulse		
Vital Signs- Respiration		
Vital Signs-Oximetry		
Sterile and Medical Aseptic Technique		
Venipuncture		
Assisted Patient Transfer (e.g., Slider Board, Mechanical Lift, Gait Belt)		
Care of Patient Medical Equipment (e.g., Oxygen Tank, IV Tubing)		

The competency requirements meet the current ARRT requirements for eligibility for certification and include general patient care activities and a subset of imaging procedures to include variations in patient characteristics (e.g., age, gender, medical conditions). For a complete list of requirements including whether an exam is permitted to be simulated visit the following link:

https://www.arrt.org/pages/arrt-reference-documents/by-document-type/didactic-and-clinical-competency-requirements

Clinical Placements

- Students are expected to be flexible with clinical placements.
- Clinical placements will be made attempting to select the best placements for the most students with the number of appropriate and available clinics.

All contact with clinical facilities must be done by the ACCE.

- No student (or family member) is permitted to contact any clinical facility for the purpose of requesting a clinical affiliation. Any student who does so will not be placed at that site.
- All costs for the clinical affiliation are the responsibility of the student. This may include: transportation, housing, meals, parking, etc. Students are expected to budget in advance for associated costs.
- There are no guarantees for placement in a particular facility. Daytona State College's Radiography Program works diligently to provide a variety of clinical placements. Students must be aware of changes in the health care system, staffing at facilities, availability of supervisors, and placement of Radiography students from other institutions that affect availability of clinical placement.

Student Clinical Code of Conduct

The Daytona State College, College of Health and Public Services have adopted the following code of conduct to guide ethical behavior in the various clinical/observation/field rotation sites. The magnitude of our responsibility as health, human and public service professionals necessitate the establishment of the highest standards of conduct.

This code of conduct represents general standards of behavior and illustrates ideals for which to strive; however, specific infractions that are reported to the College of Health and Public Services will be investigated with respect to both the magnitude and chronicity of the incident(s). It should be understood that these general standards may not afford guidance in every conceivable situation or anticipate every possible infraction.

Respect and Concern for the Welfare of Others

The clinical/observation/field student will:

- Treat patients, family members, clinical staff and others with respect and dignity both in their presence and in discussions with others.
- Recognize when one's ability to function effectively is compromised and ask for relief, guidance or help.
- Recognize the limits of student involvement in the medical care of a patient / client and seek supervision or advice before acting when necessary.
- Not use alcohol or other drugs in a manner that could compromise themselves or patient / client care.

Respect for the Rights of Others

The clinical / observation/field student will:

- Deal with staff, personnel, and peer members of the clinical/observation/field team in a considerate manner and with a spirit of cooperation.
- Act with an egalitarian spirit toward all persons encountered in a professional capacity regardless of race, religion, gender, sexual preference or socioeconomic status.
- Respect the modesty and privacy of all persons.

Trustworthiness

The clinical/observation/field student will:

- Be truthful in communication with others.
- Maintain confidentiality of all privileged information.
- Admit errors and not knowingly mislead others
- Not represent yourself in any capacity other than that of "student."
- Accurately acknowledge the sources of all information reported.

Responsibility and Sense of Duty

The clinical / observation / field student will:

- Participate responsibly in patient care or research to the best of his or her ability and with the appropriate supervision.
- Undertake clinical / observation / field duties and persevere until they are complete.
- Notify the responsible person if something interferes with his or her ability to perform clinical observation / field duties or academic tasks effectively.

Professional Demeanor

The clinical/observation/field student will:

- Maintain a neat and clean appearance, and dress in the approved attire.
- Be thoughtful and professional when interacting with others.
- Strive to maintain composure during times of fatigue, professional stress, of personal problems.
- Avoid offensive language, gestures, or inappropriate remarks.

Student Rights

The clinical/observation/field student will:

- Be challenged to learn, but should not be belittled, humiliated, or abused.
- Not be sexually harassed, either verbally or physically.
- Not be discriminated against on the basis of gender, race, religion, age or sexual preference.
- Report all violations of student rights to the appropriate college official.

Basic Responsibilities of Student Radiographers

A student radiographer learns to assist the radiologists and radiographers in patient care and perform imaging procedures in the radiology department.

The student radiographer must gain clinical experience under the direct supervision of a qualified radiographer in the performance of exams that have not been competency tested, all repeats and portables outside the department. The student radiographer may only perform exams that they have received classroom instruction and lab practice for during each semester.

The following are basic responsibilities of student radiographers as well as registered technologists:

1. Transport and prepare patients for imaging procedures.
2. Set up room and equipment for imaging procedures.
3. Follow the proper aseptic technique requirements as well as standard precautions for all patients.
4. Gain clinical experience in performance of procedures appropriately supervised by qualified radiographers and radiologists. Students are not permitted to supervise other students during the clinical setting.
5. Assure quality patient care by proper equipment usage and maintenance including QC procedures as required.
6. Properly identify patients and orders.
7. Performs exams, critique images for proper identification, anatomical/pathological structures, positioning and technical factors.
8. Practice radiation protection measures.
9. Adhere to patient rights and HIPAA guidelines.

Patient Care/Management

A. Provide appropriate gowns and draping for patients. Remove metallic items, etc. as required for exam and store patient items in accordance with medical center policies.
B. Provide appropriate patient transport following body mechanics, standard and/or transmission-based precautions and medical center guidelines.
C. Use compression devices safely and accurately as required.
D. Review patient's orders and request to assure accuracy and report any concerns prior to performance of exam.
E. Take appropriate history and document on requisition or forms provided include preps when appropriate.
F. Reassure apprehensive patients including pediatric, children, adults, trauma, special needs and geriatric patients.
G. Provide appropriate and professional communication applying medical ethics.
H. Observe and report all problems with IVs.
I. Respond to patient needs including emergency situations. Must maintain CPR certification.
J. Label any specimens according to medical center practice parameters and use standard precautions.
K. Provide radiation safety.
L. Respect the patient's rights, confidentiality, and expectations.
M. Comply with legal requirements pertaining to safe, ethical handling of patients.
N. Report patient/personnel incidents/adverse occurrences immediately and complete appropriate forms and return to appropriate individuals without delay.

Step-by-Step Procedure for Radiologic Technology

Receiving Requisition

- evaluate for type of procedure, correct orders, correct admitting diagnosis, correct physician
- notify radiographer in charge of any incorrect information on the requisition that must be changed
- review request for any noted changes to routine projections
- arrive patient with computer system Greeting patient

- use professional communication appropriate to patient's age, mental status, and cultural background
- introduce yourself
- check arm band on all ED or inpatients and do not proceed until the patient has an armband
- question outpatients to assure the correct patient (verify by 2 means).
- explain the procedure using communication appropriate to patient's age, mental status, and cultural background
- type of procedure
- patient instructions
- appropriate time frame
- evaluate patient's composure and physical condition, offer reassurance and note possible obstacles to performance of exam i.e., IV, urinary catheter, etc.

Imaging Room Pre-Exposure

- obtain and document complete patient history and indication appropriate for exam ordered
- physician complaints, i.e., pain, nausea, etc.
- medical hx, i.e., surgeries, past injuries, etc.
- note physical signs of trauma, area of trauma and mechanism of injury (be specific)
- set up room as completely as possible before standing a patient or placing the patient in an uncomfortable position
- pre-set control panel
- have cassettes ready
- have imaging equipment set
- then, position patient and provide instructions
- start exam with computer system
- if transferring patient to the imaging table, make sure to use proper body mechanics and locked the stretcher/wheelchair before moving patient
- provide proper patient cover for warmth and modesty
- use medical center practice parameters to store patient valuables

Requisition/Images

- complete requisition with appropriate indication history, your name, SRT and radiographer's name who evaluated the images with you
- complete or halt exam as indicated with computer system

Portable (Mobile) Radiography

There are many circumstances in which it is impossible for a patient to be transported to the Radiology Department for a necessary procedure. In these cases, the procedures must be performed with a mobile (portable) x-ray unit in the patient's room, in surgery or PACU, etc.

Radiation Control

Because portable radiography is performed without the benefit of inherent lead shielding, the following safety guidelines must be followed:

1. A lead apron will be worn at all times, or you will remain behind a lead protective barrier. An exception is with patients who are emitting gamma, i.e., cesium implant patients, etc.
2. Stand as far away from the patient and tube as possible.
3. Never stand in direct line with either the tube or the patient.
4. Collimate as tightly as possible.

Procedure

Always report to the patient's nurse to receive any pertinent information and/or assistance.

1. Check patient's chart for correct orders.
2. Properly identify the patient using 2 means. READ THEIR ARMBAND.
3. Exercise caution when handling patients. Be alert to IV's, drainage tubes, traction, monitoring equipment, etc. Apply proper standard and/or transmission-based isolation.
4. Be familiar with the mechanical function and range of motion of the portable unit.
5. Perform the procedure efficiently while attending to the patient's comfort and privacy.
6. Be sure all visitors and staff have left the room before making any exposures. Those that must stay should be given a lead apron and stand at least 6' from the source.
7. After the procedure, check the battery and re-charge as needed.

Remember that patients requiring portable radiography are frequently in a very critical and unstable condition, therefore, extreme caution must be exercised. Using computer system, start and complete exams with correct location and times.

As a student, you will perform these procedures only with direct supervision by a registered technologist.

Daily Items for Clinical Use

1. Small approved routine notebook or paper notes pertaining to clinical education that will fit in a pocket
2. Pen
3. ID badges must be worn at all times above the level of the waist
4. Radiation Monitoring Badge at collar level and outside lead apron
5. Markers with your initials

Clinical Time Study Aids

You will only be permitted to study from your pocket clinical routine notebook or clinical related paper notes that can fit within a pocket during scheduled clinical hours. You will be permitted to study from Merrill's or Bontrager textbooks only as they are related to clinical education. No other study aids to include textbooks other than Merrill's, notes (paper or electronic) unrelated to clinical will be permitted during scheduled clinical hours at any clinical site.

No other ready material allowed in clinical.

No other reading material, such as newspapers, magazines, etc., is permitted in the clinical setting.

Professional Behavior

1. The student will follow instructions received by supervising radiographer.

2. The student will practice appropriate interpersonal communication skills and ethical behavior. Vulgar language will not be permitted.
3. The student will arrive in clinical area promptly and report any absenteeism and/or tardiness.
4. The student will remain in clinical assignment and notify appropriate personnel when leaving the area.
5. All activities should be patient centered to assure quality care including:
    - Never destroy a patient confidence in their physician or the clinical site.
    - Patients should never be left unattended without appropriate safety i.e., locked wheelchair/stretcher, side rails up.
    - No unnecessary loud talking or disrespectful conversations.
    - Patient information must remain confidential unless the patient will benefit from disclosure to their MD
    - Friendly and courteous attitude must be maintained.
    - Do not discuss any information regarding patients or Clinical site business outside the institution, in hallways, restrooms, cafeteria, elevators, etc.
6. Problems noted including unethical or unprofessional behaviors in the class or clinical setting will result in the following:
    - the educational officials will send the student home after discussing situation with the student.
    - a summary of the events will be written and placed in the student's file.
    - the student will not be allowed to return to the Clinical site until they have discussed the incident and alternative solutions with program officials.
    - the student will be responsible for all make up time and the absence will be unexcused.
    - the student may write their version of the situation which will also be placed in their file.

Suspension/Dismissal from Clinical Rotation

In addition to the policies listed in the college catalog, the following provisions also apply. Students may be suspended or dismissed from the clinical facility for violation of any clinic policy or regulation. Errors committed in the process of learning are not considered to be violations unless they compromise safety, are constantly repeated, or if they reflect inadequate preparation on the part of the student after adequate instruction has been given. Students may also be suspended or dismissed if their progress is unsatisfactory and presents a safety hazard as evidenced by the clinical evaluation forms. Students may be immediately suspended or dismissed from a clinical facility by the clinical instructor for any of the following reasons:

(A) extreme safety violation; (B) upon request of departmental supervisory personnel; and/or (C) inappropriate behavior as defined by the program, school, departmental, or clinical policy. Final disposition will be based on the school disciplinary policy.

Radiation Protection (ALARA) Policy

To provide an accurate estimate of the exposure received from patient's scattered radiation and leakage radiation, all students are required to wear a whole-body radiation-monitoring device at the collar level at all times when in the clinical setting. The badges are not to be worn at non-clinical work sites or during medical/dental procedures the student is having performed. Students will be directed to safe locations throughout the clinical site to store the monitors. The badges must be turned in within 1 week (7 days) of the receipt of the new badge. If a monitor is washed, lost, damaged, left in an imaging room or left at home (in car), the student must notify the Program Director immediately. The Program Director will assign a new badge. In

cases of accidental exposure, the student must inform the Program Director immediately, the badge will be sent over-night to Landauer for immediate reading and until such time as the reading is received, the student will be re-scheduled in a low radiation area. The Program Director would contact the Radiation Safety Officer at DSC's main clinical site (Halifax Medical Center) to discuss further follow-up if the estimated dose received from an accident is above the allowable equivalent/effective dose limits. The Radiation Safety Officer will counsel the students in cases where the allowable dosage has been received. The Program Director reviews and signs each quarterly report. State investigational levels (page 72) are utilized by the Program Director. The Program Director will counsel any student in cases where monthly reading is high and investigate possible reason(s) for higher exposure. When wearing a lead apron, the monitoring device must be worn at the collar level outside of the protective apron. Declared pregnant individuals will be issued a fetal monitor that must been worn at the level of the abdomen and under lead protective aprons. You are required to wear the fetal monitor at abdomen level and personal badge at collar level to prevent inaccurate readings.

The Program uses Landauer's Optically Stimulation Luminescent Dosimeters. You will be required to complete a radiation history form for your radiation safety office records. Badges are changed quarterly, and radiation-monitoring reports are displayed in the classroom and maintained on file. The Program Director reviews the quarterly and annual readings. This information is available for all students and any concerns are reviewed with the individual student involved. Annual Exposure records are provided to and reviewed with students and maintained in their file.

Basic Radiation Protection Policy

Three General Rules:

1. Keep the **time** of exposure as short as possible.
2. Maintain the longest **distance** between the source and exposed individual.
3. Utilize **shields** to protect specific areas from exposure.

Always adhere to the **ALARA** principles to keep the exposure to radiation **A**s **L**ow **A**s **R**easonably **A**chievable.

Dose Equivalent Limits

Occupational Exposure	5 rem/year or 50 mSv/year	
Non-occupational Exposure	.1 rem/year or 1 mSv/year (continuous exposure)	
Embryo-Fetal	.5 rem (5 mSv)/9 mos.	.05 rem (.5 mSv)/mo.

Reduction of Patient Dose

1. Restrict beam to anatomy of interest.
2. Insert proper amount of Al filtration to reduce skin entrance exposure.
3. Reduce leakage radiation to less than 100 mR/hour at 1 meter from source.
4. Provide appropriate specific area shielding.
5. Set proper technical factors, utilize image system correctly and carefully position part.
6. Provide PI/QC program.
7. Utilize intermittent fluoroscopy with stationary tubes fixed at least 15" from skin entrance and mobile fixed at least 12" from skin entrance.
8. Fluoroscopy exposure rate must remain below 10 R/minute with ABC.
9. Chart pregnancy or denied pregnancy on all females in childbearing potential as well as shielding.
10. Students are not permitted to hold patients or image receptors during any radiographic procedure.

Reduction of Personnel Dose

1. Wear .5 mm Pb aprons, stand behind protective shielding and minimize time of exposure.
2. Occupationally exposed workers should not hold patients but utilize appropriate mechanical supports or have a non-occupationally exposed person hold patient.
3. Monitor exposure monthly with optically stimulated luminescent dosimeter badge.
4. Apply ALARA and basic radiation protection rules.
5. Experimental exposure is prohibited.
6. Pregnant females have the option of declaration or non-declaration of pregnancy. (Refer to NRC Guideline 8.13, which will be reviewed during orientation)
7. Wear OSLD badge at level of collar outside lead apron.
8. Stand away from the direct line of exposure.

Radiation Safety Policy

STATEMENT OF PURPOSE:

To establish basic guidelines for protecting students and patient from radiation.

POLICY:

Faculty/students of the Radiograph program will follow the general radiation safety guidelines.

PROCEDURE:

I. The general radiation safety guidelines are as follows:

A. The three (3) basic methods of protection from radiation are shielding, distance, and time of exposure.

B. Do not allow others in the radiographic room with the patient unless it is absolutely necessary.

   a. If absolutely necessary, family members may be asked to hold the patient during a procedure if immobilization devices are not practical. The following precautions must be taken:

      i. The family member must be greater than 18 years of age

      ii. If female, the family member must be questioned regarding the possibility of being pregnant. Pregnant family members will not be permitted in the room under any circumstances while the x-ray tube is energized

      iii. The family member will be advised that they will be exposed to scattered radiation that could result in radiation exposure comparable to that from other diagnostic x-ray exams.

      iv. The family member must wear a protective apron while holding the patient.

C. Students must never hold a patient or an image receptor during the x-ray exposure.

D. Never put your hand or any part of your body in the primary beam.

E. Close the door to the x-ray room when an exposure is being made.

F. Stay behind the lead shielding when making an exposure.

G. When a portable procedure is requested; the technologist is responsible for seeing that all exposures are safe and that all personnel are removed from the area except those necessary to help with the examination. The technologist must also use proper collimation of the x-ray beam to reduce radiation scattered.

II. Protective Equipment

A. Protective barriers are there for your protection. They contain at least 1.5 mm PB or its equivalent and are at least seven feet high. The control panel, exposure switch and protective barrier are arranged so that it is inconvenient to make the exposure without standing behind the barrier.

B. Lead aprons in the department contain the equivalent of 0.5 mm PB or more. They should be worn at all times in fluoroscopy and anytime you are in the room when an exposure is being made. They must be checked for cracks periodically by imaging them with fluoroscopy.

C. Lead gloves in the department contain the equivalent of at least 0.25 mm PB. They are to be worn anytime your hands are in or near the primary x-ray beam. Lead gloves should be checked for cracks annually in the same manner as lead aprons.

D. Radiation dosimeters are worn to monitor the amount of exposure you receive. They should be worn at all times that you are at the clinical education site or off-site laboratory.

E. All of the immobilization devices are to protect the patient in order to obtain the necessary exam. Immobilization devices will only be used when other measures have failed (i.e. sedation) and the procedure is of benefit to the patient. Immobilization device will be used first before using a family member or individual to hold patients to minimize radiation exposure.

III. Equivalent/Effective Limits

A. The National Council on Radiation Protection and Measurements and the International Commission on Radiological Protection have recommended the following values for the dose equivalent limits of radiation for occupational exposure. The primary objective of these recommendations is to keep the exposure of the radiation worker well below the level at which adverse effects are likely to be observed during his/her lifetime.

B. The radiation exposure limits which are established by the State of Florida and implemented as follows:

1. The lesser of a total effective dose of 5 rems (50 mSv) or the sum of the deep-dose equivalent and the committed dose equivalent to any individual organ or tissue, other than the lens of the eye equal to 50 rems (500 mSv).

2. An eye equivalent dose of 15 rems (150 mSv).

3. A shallow equivalent dose of 50 rems (500 mSv) to the skin or to any extremity.

4. The occupational dose limits for minors are ten (10) percent of the limits specified for adults.

5. The dose limit to an embryo/fetus during the entire pregnancy of an occupationally exposed woman is 0.5 rem (5 mSv).

IV. Radiation exposure records

A. Dosimeters are read on a quarterly basis, and the results are electronically transmitted and posted in the classroom.

B. If high readings are reported the students work habits will be investigated and corrective measures taken.

C. Exposure reports will be kept in the Program Directors Office.

V. Cases where dose limits are exceeded:

A. The Program Director will review all quarterly reports to assure student dose limits are not exceeded.

B. If dose limit for the quarter is exceeded, the student is removed from the clinical setting as a safety precaution during the investigation of the cause of the dose limit being exceeded. The student is counseled to identify possible cause(s) of exceeding of dose limit to include storage of monitor, leaving monitor on apron in fluoroscopic room, location student stands during fluoroscopic/OR/portable procedures, student rotation scheduling during badge period.

C. If the cause cannot be identified, Landauer is contacted to re-read the monitor.

D. The program director will review time, distance and shielding rules of radiation safety and the proper location to store and wear the monitor with the student.

E. The cause will be identified and rectified to avoid student exceeding limits in any future badge periods.

VI. Dosimeters

A. A. The dosimeter badge is a device is used to record the occupational exposure to ionizing radiation received by the wearer. The dosimeter badge in no way prevents radiation exposure to the wearer. Occupational exposures received by individuals are normally very small. In order to comply with regulations, the program is required to supply a radiation monitor to all individuals routinely working with radiation sources and each individual should wear the badge at all times when working around radiation sources.

B. Each individual's occupational exposure to ionizing radiation, as recorded by the dosimeter badge, becomes a permanent part of his or her exposure record.

C. Information obtained from dosimeter badge report is reviewed by the Program Director who will investigate and make recommendations to correct the causes of unusual exposure.

D. Dosimeter badges shall be worn on the front surface of the body in the area of the collar. If a lead apron is worn, the badge will be worn at the front collar outside of the apron.

E. A badge is issued to one person and has his or her name on it. Badges must never be worn by more than one person or exchanged with others or worn when the badged individual is receiving a medical or dental radiation exposure as a patient with x-rays or other diagnostic procedure.

F. Badges must not be abused, tampered with, or opened. If the badge breaks, it should be brought to the Program Director.

G. E. If you lose or damage your badge, report to the Program Director immediately, so a new badge can be issued. You will be asked to provide information that will allow your exposure for the period you wore the lost or damaged badge to be estimated. Never work with or around radioactive materials without a badge, or with one known to be damaged.

H. Your dosimeter badge is only to be used to monitor your personal exposure.

Radiation Protections Guidelines (Florida Administrative Code) NRC Regulatory Guide 8.13

FLORIDA DEPARTMENT OF HEALTH

NOTICE TO EMPLOYEES

STANDARDS FOR PROTECTION AGAINST RADIATION;
NOTICES, INSTRUCTIONS AND REPORTS TO WORKERS; INSPECTIONS

POSTING REQUIREMENT

THIS NOTICE MUST BE POSTED IN PLACES THAT PERMIT EMPLOYEES IN A RESTRICTED AREA TO SEE A COPY ON THE WAY TO OR FROM THEIR PLACE OF EMPLOYMENT.

The Department of Health has established standards for protection against radiation hazards in Chapter 64E-5, Florida Administrative Code.

YOUR EMPLOYER IS REQUIRED TO:

- Post or provide you a copy of the Department of Health rules and operating procedures that apply to your work and explain them to you.
- Apply the rules to work involving radiation sources.
- Post or provide you any Notice of Violation involving radiological working conditions, proposed civil penalties, and orders.

YOU ARE REQUIRED TO:

- Become familiar with the rules and the operating procedures that apply to your work.
- Observe the requirements to protect yourself and your co-workers.

WHAT IS IN THESE RULES:

- Limits on exposure to radiation and radioactive material in restricted and unrestricted areas
- Actions to take after accidental exposure
- Personnel monitoring, surveys, and equipment
- Caution signs, labels, and safety interlocks
- Exposure records and reports
- Options for workers about Department of Health inspections
- Related matters

REPORTS ON RADIATION EXPOSURE

Your employer must give you a written report if you receive an exposure above the limits in the rules or in the license. The maximum limits for exposure to employees are in Part III of the rules. However, your employer should keep your radiation exposure as low as reasonably achievable.

If you work where personnel monitoring is required:

- Your employer must give you a written annual report of your radiation exposures.
- Your employer must give you a written report of your radiation exposures when you terminate employment.

INSPECTIONS

Representatives of the Department of Health inspect all licensed and registered activities. Any worker or worker representative who believes that there is a violation of Chapter 404, Florida Statutes; Chapter 64E-5, Florida Administrative Code; or the terms of the employer's license or registration can request an inspection by contacting the Bureau of Radiation Control, Bin C21, 4052 Bald Cypress Way, Tallahassee, FL 32399-1741 (850) 245- 4266. The request must state specific reasons for the inspection. During inspections, Department of Health inspectors can confer privately with workers and any worker can bring to the attention of the inspectors any past or present condition that they believe contributed to or caused any violation.

Copies of Chapter 64E-5, F.A.C. can be found online at:

https://www.floridahealth.gov/%5C/environmental-health/radiation-control/_documents/regs/64e-5tab.html

Copies of the license or registration, operating procedures, any notice of violation about working conditions, penalty order issued, and responses can be examined in the Radiation Safety Office.

Pregnancy Guidelines

The Nuclear Regulatory Commission rules and regulations give student radiographers the option of declaring or not declaring pregnancy. In accordance with these rules and regulations, the radiography student has the option of declaring or not declaring a pregnancy while enrolled or accepted into the Daytona State College Radiography Program.

If the student radiographer declares pregnancy, it must be in writing to the Program Director. The student will be provided with the options listed below, a separate monthly fetal monitor and counseling. If no declaration is made, the student will continue to be subject to the same radiation limits that apply to non-pregnant students even if visibly pregnant and no fetal monitor will be assigned.

If at any time a student who has previously declared pregnancy chooses to remove the declaration of pregnancy from their file, they must submit this request in writing and will to be subject to the same radiation dose limits that apply to non-pregnant students even if visibly pregnant. If a fetal monitor has been ordered, it will be cancelled in such a case.

If a written declaration of pregnancy to the Program Director is made:

Student Radiographer Wishing to Declare Responsibilities

1. Following counseling, select an option and sign the declaration document. If at any time the student radiographer wishes to non-declare pregnancy, they may do so in writing.
2. Wear fetal monitor at level of waist and inside the Pb apron.
3. Complete all requirements for graduation prior to completion of the program.

Program Responsibilities

1. Pregnant student radiographers shall be counseled concerning the following options:
    a. Continuance in program without any modifications to the class, lab, or clinical schedule during pregnancy.
    b. Continuance in program with option of remaining in a clinical setting but not performing fluoroscopic, mobile, or other procedures, which require the student to be in the radiographic/fluoroscopic room. The student must make-up all missed clinical rotations in fluoroscopic and mobile procedures upon returning from leave.
    c. Withdraw from the clinical portion of the program until past delivery, with the opportunity to continue with course work and lab. The student radiographer must fulfill required clinical competencies and rotations prior to completion of the program.
    d. Pregnant students will be counseled on the risks and potential ramifications of exposure to radiation during pregnancy.

Approved by the Radiation Safety Committee 12/2020
Reviewed and Revised as Required Annually

Declaration of Pregnancy – Student Option Document

Student Name _____ **Date** _____

Circle the Option

Option 1

Continue in program without any modifications to the class, lab, or clinical schedule during pregnancy.

Option 2

Continue in program with option of remaining in a clinical setting but not performing fluoroscopic, mobile or other procedures, which require the student to be in the radiographic/fluoroscopic room. The student must make-up all missed clinical rotations in fluoroscopic and mobile procedures upon returning from leave.

Option 3

Withdraw from the clinical portion of the program until past delivery, with the opportunity to continue with course work and lab. The student radiographer must fulfill required clinical competencies and rotations prior to completion of the program.

Declared Pregnant Student Radiographer agrees to:

- *Wear the fetal monitor at all times when on medical center premises, at the level of my abdomen and under the lead protective apron.*
- *Counseling concerning the risks and agrees that the medical center and program are not responsible for any anomalies that may occur to conceptus.*
- *Complete required class, lab and clinical time required for program graduation.*

Student Radiographer Signature _____ **Date** _____

Faculty _____

A written guideline for Leave of Absence will be developed and reviewed with student and faculty.

Leave of Absence Guidelines

To provide a guideline to define an approved leave of absence from the Program.

Procedure

1. Requests will be considered individually.
2. A request must be submitted in writing to the Education Coordinator as far in advance as possible, the exception is in cases of emergency situations.
3. The student is responsible for contacting the Education Coordinator a minimum of two weeks before their scheduled return date or if there will be a change in the return date.
4. The faculty will work with the student to develop a written guideline for class, lab and clinical. The guideline will be signed by the student and faculty.
5. The student must return to the Program on or before the expiration date of the leave. If the student fails to return and does not properly notify the Education Coordinator, the student will be considered as having terminated their position without notice.
6. The student returning to the Program from an approved LOA due to pregnancy, illness, accident, etc. is required to produce a written release from their physician to the Education Coordinator. The release should include that the post-delivery, illness, or injury is cleared and that the student may return to the Program.

Regulatory Guide 8.13

Instruction Concerning Prenatal Radiation Exposure

A. Introduction

The Code of Federal Regulations in 10 CFR Part 19, “Notices, Instructions and Reports to Workers: Inspection and Investigations,” in Section 19.12, “Instructions to Workers,” requires instruction in “the health protection problems associated with exposure to radiation and/or radioactive material, in precautions or procedures to minimize exposure, and in the purposes and functions of protective devices employed.” The instructions must be “commensurate with potential radiological health protection problems present in the workplace.”

The Nuclear Regulatory Commission's (NRC's) regulations on radiation protection are specified in 10 CFR Part 20, “Standards for Protection Against Radiation”; and 10 CFR 20.1208, “Dose to an Embryo/Fetus,” requires licensees to “ensure that the dose to an embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv).” Section 20.1208 also requires licensees to “make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman.” A declared pregnant woman is defined in 10 CFR 20.1003 as a woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception.

This regulatory guide is intended to provide information to pregnant women, and other personnel, to help them make decisions regarding radiation exposure during pregnancy. This Regulatory Guide 8.13 supplements Regulatory Guide 8.29, “Instruction Concerning Risks from Occupational Radiation Exposure” (Ref. 1), which contains a broad discussion of the risks from exposure to ionizing radiation. Other sections of the NRC's regulations also specify requirements for monitoring external and internal occupational dose to a declared pregnant woman. In 10 CFR 20.1502, “Conditions Requiring Individual Monitoring of External and Internal Occupational Dose,” licensees are required to monitor the occupational dose to a declared pregnant woman, using an individual monitoring device, if it is likely that the declared pregnant woman will receive, from external

sources, a deep dose equivalent in excess of 0.1 rem (1 mSv). According to Paragraph (e) of 10 CFR 20.2106, "Records of Individual Monitoring Results," the licensee must maintain 8.13-8.13-2 records of dose to an embryo/fetus if monitoring was required, and the records of dose to the embryo/fetus must be kept with the records of dose to the declared pregnant woman. The declaration of pregnancy must be kept on file but may be maintained separately from the dose records. The licensee must retain the required form or record until the Commission terminates each pertinent license requiring the record. The information collections in this regulatory guide are covered by the requirements of 10 CFR Parts 19 or 20, which were approved by the Office of Management and Budget, approval numbers 3150-0044 and 3150-0014, respectively. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

B. Discussion

As discussed in Regulatory Guide 8.29 (Ref. 1), exposure to any level of radiation is assumed to carry with it a certain amount of risk. In the absence of scientific certainty regarding the relationship between low dose exposure and health effects, and as a conservative assumption for radiation protection purposes, the scientific community generally assumes that any exposure to ionizing radiation may cause undesirable biological effects and that the likelihood of these effects increases as the dose increases. At the occupational dose limit for the whole body of 5 rem (50 mSv) per year, the risk is believed to be very low. The magnitude of risk of childhood cancer following in utero exposure is uncertain in that both negative and positive studies have been reported. The data from these studies "are consistent with a lifetime cancer risk resulting from exposure during gestation which is two to three times that for the adult" (NCRP Report No. 116, Ref. 2). The NRC has reviewed the available scientific literature and has concluded that the 0.5 rem (5 mSv) limit specified in 10 CFR 20.1208 provides an adequate margin of protection for the embryo/fetus. This dose limit reflects the desire to limit the total lifetime risk of leukemia and other cancers associated with radiation exposure during pregnancy.

In order for a pregnant worker to take advantage of the lower exposure limit and dose monitoring provisions specified in 10 CFR Part 20, the woman must declare her pregnancy in writing to the licensee. A form letter for declaring pregnancy is provided in this guide or the licensee may use its own form letter for declaring pregnancy. A separate written declaration should be submitted for each pregnancy.

C. Regulator Position

1. Who Should Receive Instruction

Female workers who require training under 10 CFR 19.12 should be provided with the information contained in this guide. In addition to the information contained in Regulatory Guide 8.29 (Ref. 1), this information may be included as part of the training required under 10 CFR 19.12.

2. Providing Instruction

The occupational worker may be given a copy of this guide with its Appendix, an explanation of the 8.13-8.13-3 contents of the guide, and an opportunity to ask questions and request additional information. The information in this guide and Appendix should also be provided to any worker or supervisor who may be affected by a declaration of pregnancy or who may have to take some action in response to such a declaration. Classroom instruction may supplement the written information. If the licensee provides classroom instruction, the instructor should have some knowledge of the biological effects of radiation to be able to answer questions that may go beyond the information provided in this guide. Videotaped presentations may be used for classroom instruction. Regardless of whether the licensee provides classroom training, the licensee should give workers the opportunity to ask questions about information

contained in this Regulatory Guide 8.13. The licensee may take credit for instruction that the worker has received within the past year at other licensed facilities or in other courses or training.

3. **Licensee's Policy on Declared Pregnant Women**
   The instruction provided should describe the licensee's specific policy on declared pregnant women, including how those policies may affect a woman's work situation. In particular, the instruction should include a description of the licensee's policies, if any, that may affect the declared pregnant woman's work situation after she has filed a written declaration of pregnancy consistent with 10 CFR 20.1208. The instruction should also identify who to contact for additional information as well as identify who should receive the written declaration of pregnancy. The recipient of the woman's declaration may be identified by name (e.g., John Smith), position (e.g., immediate supervisor, the radiation safety officer), or department (e.g., the personnel department).
4. **Duration of Lower Dose Limits for the Embryo/Fetus**
   The lower dose limit for the embryo/fetus should remain in effect until the woman withdraws the declaration in writing or the woman is no longer pregnant. If a declaration of pregnancy is withdrawn, the dose limit for the embryo/fetus would apply only to the time from the estimated date of conception until the time the declaration is withdrawn. If the declaration is not withdrawn, the written declaration may be considered expired one year after submission.
5. **Substantial Variations Above a Uniform Monthly Dose Rate**
   According to 10 CFR 20.1208(b), “The licensee shall make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman so as to satisfy the limit in paragraph (a) of this section,” that is, 0.5 rem (5 mSv) to the embryo/fetus. The National Council on Radiation Protection and Measurements (NCRP) recommends a monthly equivalent dose limit of 0.05 rem (0.5 mSv) to the embryo/fetus once the pregnancy is known (Ref. 2). In view of the NCRP recommendation, any monthly dose of less than 0.1 rem (1 mSv) may be considered as not a substantial variation above a uniform monthly dose rate and as such will not require licensee justification. However, a monthly dose greater than 0.1 rem (1 mSv) should be justified by the licensee. 8.13-8.13-4

D. Implementation

The purpose of this section is to provide information to licensees and applicants regarding the NRC staff's plans for using this regulatory guide. Unless a licensee or an applicant proposes an acceptable alternative method for complying with the specified portions of the NRC's regulations, the methods described in this guide will be used by the NRC staff in the evaluation of instructions to workers on the radiation exposure of pregnant women.

References

1. USNRC, “Instruction Concerning Risks from Occupational Radiation Exposure,” Regulatory Guide 8.29, Revision 1, February 1996.
2. National Council on Radiation Protection and Measurements, Limitation of Exposure to Ionizing Radiation, NCRP Report No. 116, Bethesda, MD, 1993.

8.13-8.13-5

Appendix

Questions and Answers Concerning Prenatal Radiation Exposure

1. **Why am I receiving this information?**
   The NRC's regulations (in 10 CFR 19.12, "Instructions to Workers") require that licensees instruct individuals working with licensed radioactive materials in radiation protection as appropriate for the situation. The instruction below describes information that occupational workers and their supervisors should know about the radiation exposure of the embryo/fetus of pregnant women. The regulations allow a pregnant woman to decide whether she wants to formally declare her pregnancy to take advantage of lower dose limits for the embryo/fetus. This instruction provides information to help women make an informed decision whether to declare a pregnancy.
2. **If I become pregnant, am I required to declare my pregnancy?**
   No. The choice whether to declare your pregnancy is completely voluntary. If you choose to declare your pregnancy, you must do so in writing and a lower radiation dose limit will apply to your embryo/fetus. If you choose not to declare your pregnancy, you and your embryo/fetus will continue to be subject to the same radiation dose limits that apply to other occupational workers.
3. **If I declare my pregnancy in writing, what happens?**
   If you choose to declare your pregnancy in writing, the licensee must take measures to limit the dose to your embryo/fetus to 0.5 rem (5 millisievert) during the entire pregnancy. This is one-tenth of the dose that an occupational worker may receive in a year. If you have already received a dose exceeding 0.5 rem (5 mSv) in the period between conception and the declaration of your pregnancy, an additional dose of 0.05 rem (0.5 mSv) is allowed during the remainder of the pregnancy. In addition, 10 CFR 20.1208, "Dose to an Embryo/Fetus," requires licensees to make efforts to avoid substantial variation above a uniform monthly dose rate so that all the 0.5 rem (5 mSv) allowed dose does not occur in a short period during the pregnancy. This may mean that, if you declare your pregnancy, the licensee may not permit you to do some of your normal job functions if those functions would have allowed you to receive more than 0.5 rem, and you may not be able to have some emergency response responsibilities.
4. **Why do the regulations have a lower dose limit for the embryo/fetus of a declared pregnant woman than for a pregnant worker who has not declared?**
   A lower dose limit for the embryo/fetus of a declared pregnant woman is based on a consideration of greater sensitivity to radiation of the embryo/fetus and the involuntary nature of the exposure. Several scientific advisory groups have recommended (References 1 and 2) that the dose to the embryo/fetus be limited to a fraction of the occupational dose limit. 8.13-8.13-6
5. **What are the potentially harmful effects of radiation exposure to my embryo/fetus?**
   The occurrence and severity of health effects caused by ionizing radiation are dependent upon the type and total dose of radiation received, as well as the time period over which the exposure was received. See Regulatory Guide 8.29, "Instruction Concerning Risks from Occupational Exposure" (Ref. 3), for more information. The main concern is embryo/fetal susceptibility to the harmful effects of radiation such as cancer.
6. **Are there any risks of genetic defects?**
   Although radiation injury has been induced experimentally in rodents and insects, and in the experiments was transmitted and became manifest as hereditary disorders in their offspring, radiation has not been identified as a cause of such effect in humans. Therefore, the risk of genetic effects attributable to radiation exposure is speculative. For example, no genetic effects have been documented in any of the Japanese atomic bomb survivors, their children, or their grandchildren.

7. **What if I decide that I do not want any radiation exposure at all during my pregnancy?**
   You may ask your employer for a job that does not involve any exposure at all to occupational radiation dose, but your employer is not obligated to provide you with a job involving no radiation exposure. Even if you receive no occupational exposure at all, your embryo/fetus will receive some radiation dose (on average 75 mrem (0.75 mSv)) during your pregnancy from natural background radiation. The NRC has reviewed the available scientific literature and concluded that the 0.5 rem (5 mSv) limit provides an adequate margin of protection for the embryo/fetus. This dose limit reflects the desire to limit the total lifetime risk of leukemia and other cancers. If this dose limit is exceeded, the total lifetime risk of cancer to the embryo/fetus may increase incrementally. However, the decision on what level of risk to accept is yours. More detailed information on potential risk to the embryo/fetus from radiation exposure can be found in References 2-10.
8. **What effect will formally declaring my pregnancy have on my job status?**
   Only the licensee can tell you what effect a written declaration of pregnancy will have on your job status. As part of your radiation safety training, the licensee should tell you the company's policies with respect to the job status of declared pregnant women. In addition, before you declare your pregnancy, you may want to talk to your supervisor or your radiation safety officer and ask what a declaration of pregnancy would mean specifically for you and your job status.

   In many cases you can continue in your present job with no change and still meet the dose limit for the embryo/fetus. For example, most commercial power reactor workers (approximately 93%) receive, in 12 months, occupational radiation doses that are less than 0.5 rem (5 mSv) (Ref. 11). The licensee may also consider the likelihood of increased radiation exposures from accidents and abnormal events before making a decision to allow you to continue in your present job. 8.13-8.13-7 If your current work might cause the dose to your embryo/fetus to exceed 0.5 rem (5 mSv), the licensee has various options. It is possible that the licensee can and will make a reasonable accommodation that will allow you to continue performing your current job, for example, by having another qualified employee do a small part of the job that accounts for some of your radiation exposure.
9. **What information must I provide in my written declaration of pregnancy?**
   You should provide, in writing, your name, a declaration that you are pregnant, the estimated date of conception (only the month and year need be given), and the date that you give the letter to the licensee. A form letter that you can use is included at the end of these questions and answers. You may use that letter, use a form letter the licensee has provided to you, or write your own letter.
10. **To declare my pregnancy, do I have to have documented medical proof that I am pregnant?**
    NRC regulations do not require that you provide medical proof of your pregnancy. However, NRC regulations do not preclude the licensee from requesting medical documentation of your pregnancy, especially if a change in your duties is necessary in order to comply with the 0.5 rem (5 mSv) dose limit.
11. **Can I tell the licensee orally rather than in writing that I am pregnant?**
    No. The regulations require that the declaration must be in writing.
12. **If I have not declared my pregnancy in writing, but the licensee suspects that I am pregnant, do the lower dose limits apply?**
    No. The lower dose limits for pregnant women apply only if you have declared your pregnancy in writing. The United States Supreme Court has ruled (in *United Automobile Workers International Union v. Johnson Controls, Inc.,* 1991) that “Decisions about the welfare of future children must be left to the parents who conceive, bear, support, and raise them rather than to the employers who hire those parents” (Reference 7). The Supreme Court also ruled that your employer may not restrict you from a specific job “because of

concerns about the next generation." Thus, the lower limits apply only if you choose to declare your pregnancy in writing.

13. **If I am planning to become pregnant but am not yet pregnant and I inform the licensee of that in writing, do the lower dose limits apply?**
    No. The requirement for lower limits applies only if you declare in writing that you are already pregnant.
14. **What if I have a miscarriage or find out that I am not pregnant?**
    If you have declared your pregnancy in writing, you should promptly inform the licensee in writing that you are no longer pregnant. However, if you have not formally declared your pregnancy in writing, you need not inform the licensee of your nonpregnant status.
15. **How long is the lower dose limit in effect?**
    The dose to the embryo/fetus must be limited until you withdraw your declaration in writing or you 8.13-8.13-8 inform the licensee in writing that you are no longer pregnant. If the declaration is not withdrawn, the written declaration may be considered expired one year after submission.
16. **If I have declared my pregnancy in writing, can I revoke my declaration of pregnancy even if I am still pregnant?**
    Yes, you may. The choice is entirely yours. If you revoke your declaration of pregnancy, the lower dose limit for the embryo/fetus no longer applies.
17. **What if I work under contract at a licensed facility?**
    The regulations state that you should formally declare your pregnancy to the licensee in writing. The licensee has the responsibility to limit the dose to the embryo/fetus.
18. **Where can I get additional information?**
    The references to this Appendix contain helpful information, especially Reference 3, NRC's Regulatory Guide 8.29, "Instruction Concerning Risks from Occupational Radiation Exposure," for general information on radiation risks. The licensee should be able to give this document to you. For information on legal aspects, see Reference 7, "The Rock and the Hard Place: Employer Liability to Fertile or Pregnant Employees and Their Unborn Children—What Can the Employer Do?" which is an article in the journal *Radiation Protection Management.*

    You may telephone the NRC Headquarters at (301) 415-7000. Legal questions should be directed to the Office of the General Counsel, and technical questions should be directed to the Division of Industrial and Medical Nuclear Safety. You may also telephone the NRC Regional Offices at the following numbers: Region I, (610) 337-5000; Region II, (404) 562-4400; Region III, (630) 829-9500; and Region IV, (817) 860-8100. Legal questions should be directed to the Regional Counsel, and technical questions should be directed to the Division of Nuclear Materials Safety.

[1]Single copies of regulatory guides, both active and draft, and draft NUREG documents may be obtained free of charge by writing the Reproduction and Distribution Services Section, OCIO, USNRC, Washington, DC 20555-0001, or by fax to (301)415-2289, or by email to <DISTRIBUTION@NRC.GOV>. Active guides may also be purchased from the National Technical Information Service on a standing order basis. Details on this service may be obtained by writing NTIS, 5285 Port Royal Road, Springfield, VA 22161. Copies of active and draft guides are available for inspection or copying for a fee from the NRC Public Document Room at 2120 L Street NW., Washington, DC; the PDR's mailing address is Mail Stop LL-6, Washington, DC 20555; telephone (202)634-3273; fax (202)634-3343. 8.13-8.13-9

References for Appendix

1. National Council on Radiation Protection and Measurements, Limitation of Exposure to Ionizing Radiation, NCRP Report No. 116, Bethesda, MD, 1993.
2. International Commission on Radiological Protection, 1990 Recommendations of the International Commission on Radiological Protection, ICRP Publication 60, Ann. ICRP 21: No. 1-3, Pergamon Press, Oxford, UK, 1991.
3. USNRC, "Instruction Concerning Risks from Occupational Radiation Exposure," Regulatory Guide 8.29, Revision 1, February 1996.11 (Electronically available at www.nrc.gov/NRC/RG/index.html)
4. Committee on the Biological Effects of Ionizing Radiations, National Research Council, Health Effects of Exposure to Low Levels of Ionizing Radiation (BEIR V), National Academy Press, Washington, DC, 1990.
5. United Nations Scientific Committee on the Effects of Atomic Radiation, Sources and Effects of Ionizing Radiation, United Nations, New York, 1993.
6. R. Doll and R. Wakeford, "Risk of Childhood Cancer from Fetal Irradiation," The British Journal of Radiology, 70, 130-139, 1997.
7. David Wiedis, Donald E. Jose, and Timm O. Phoebe, "The Rock and the Hard Place: Employer Liability to Fertile or Pregnant Employees and Their Unborn Children—What Can the Employer Do?" Radiation Protection Management, 11, 41-49, January/February 1994.
8. National Council on Radiation Protection and Measurements, Considerations Regarding the Unintended Radiation Exposure of the Embryo, Fetus, or Nursing Child, NCRP Commentary No. 9, Bethesda, MD, 1994.
9. National Council on Radiation Protection and Measurements, Risk Estimates for Radiation Protection, NCRP Report No. 115, Bethesda, MD, 1993.
   [2]Copies are available at current rates from the U.S. Government Printing Office, P.O. Box 37082, Washington, DC 20402-9328 (telephone (202) 512-1800); or from the National Technical Information Service by writing NTIS at 5285 Port Royal Road, Springfield, VA 22161. Copies are available for inspection or copying for a fee from the NRC Public Document Room at 2120 L Street NW., Washington, DC; the PDR's mailing address is Mail Stop LL-6, Washington, DC 20555; telephone (202)634-3273; fax (202) 634-3343. 8.13-8.13-10
10. National Radiological Protection Board, Advice on Exposure to Ionizing Radiation During Pregnancy, National Radiological Protection Board, Chilton, Didcot, UK, 1998.
11. M.L. Thomas and D. Hagemeyer, "Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities, 1996," Twenty-Ninth Annual Report, NUREG-0713, Vol. 18, USNRC, 1998.22 8.13-8.13-11

Form Letter for Declaring Pregnancy

(Your signature)

(Your name printed)

(Date)

This form letter is provided for your convenience. To make your written declaration of pregnancy, you may fill in the blanks in this form letter, you may use a form letter the licensee has provided to you, or you may write your own letter.

Declaration of Pregnancy

To:

In accordance with the NRC's regulations at 10 CFR 20.1208, “Dose to an Embryo/Fetus,” I am declaring that I am pregnant. I believe I became pregnant in (only the month and year

need be provided). I understand the radiation dose to my embryo/fetus during my entire pregnancy will not be allowed to exceed 0.5 rem (5 millisievert) (unless that dose has already been exceeded between the time of conception and submitting this letter). I also understand that meeting the lower dose limit may require a change in job or job responsibilities during my pregnancy.

8.13-8.13-12

Regulatory Analysis

A separate regulatory analysis was not prepared for this regulatory guide. A regulatory analysis prepared for 10 CFR Part 20, “Standards for Protection Against Radiation” (56 FR 23360), provides the regulatory basis for this guide and examines the costs and benefits of the rule as implemented by the guide. A copy of the “Regulatory Analysis for the Revision of 10 CFR Part 20” (PNL-6712, November 1988) is available for inspection and copying for a fee at the NRC Public Document Room, 2120 L Street NW, Washington, DC, as an enclosure to Part 20 (56 FR 23360).

Reference: Part Index | NRC.gov

Policy for Pre-MRI Screening

Purpose

To maintain a safe MRI environment for students, patients, and all healthcare personnel working in and around the MRI Department.

Scope

This policy applies to Daytona State College Radiography Students that are attending clinical education at a site that has an MRI Department

Policy

Students will be screened using a Health Care Personnel screening form. These will be kept on file in the program office and will be provided to the clinical site before the beginning of the student's clinical rotation.

Trained MRI staff members will review the latest MRI safety information from the manufacture or at http://mrisafety.com/ for implants, metallic foreign bodies, mechanical/electronic devices, or any other contraindications.

Procedure

1. Radiography students entering Zone IV will complete a Health care Personnel screening form.
2. Trained MRI staff will review the MRI history sheet while following screening protocols and determine if any further information regarding the student should be obtained.

Keywords

Screening, MRI, zone IV, MRI safety

References

- ACR guidance document on MR safe practices:2020
- http://mrisafety.com/

MRI Pre-Procedure Screening Form

Name: _____

The following items can interfere with MRI Imaging, and some may be hazardous to your safety. Please check the correct answer for each of the following: ***ALL QUESTIONS MUST BE ANSWERED***

□	Yes	□	No	Aneurysm clip(s)	□	Yes	□	No	Currently on Dialysis
□	Yes	□	No	Vascular Stents, Filters, Coils Type/Date _____	□	Yes	□	No	Currently in Acute Kidney Injury (AKI) orAcute Renal Failure (ARF)
□	Yes	□	No	Cardiac pacemaker					
□	Yes	□	No	Implanted cardioverter defibrillator (ICD)	□	Yes	□	No	Shrapnel, Buckshot, Bullets
□	Yes	□	No	Artificial eye	□	Yes	□	No	Wire mesh implant
□	Yes	□	No	Venous Umbrella	□	Yes	□	No	Tissue expander (e.g., breast)
□	Yes	□	No	Electronic implant or device	□	Yes	□	No	Harrington Rods (spine)
□	Yes	□	No	Magnetically activated implant or device	□	Yes	□	No	Joint replacements (hip, knee, etc.)
□	Yes	□	No	Neurostimulator (Tens Unit)	□	Yes	□	No	Bone/joint pin, screw, nail, wire, plate, etc.
□	Yes	□	No	Spinal cord stimulator	□	Yes	□	No	Removable Dentures or partial plates
□	Yes	□	No	Internal electrodes or wires	□	Yes	□	No	Tattoo or permanent makeup
□	Yes	□	No	Bone growth/bone fusion stimulator	□	Yes	□	No	Body Piercing(s)
□	Yes	□	No	Any metallic fragments or foreign body	□	Yes	□	No	Hearing Aid (remove before MRI)
□	Yes	□	No	Insulin or other Infusion Pump	□	Yes	□	No	Transdermal Medication Patch
□	Yes	□	No	Implanted drug infusion device	□	Yes	□	No	Other implant_____
□	Yes	□	No	Swan Ganz Catheter	□	Yes	□	No	Breathing problem or motion disorder
□	Yes	□	No	Heart valve prosthesis	□	Yes	□	No	Claustrophobia
□	Yes	□	No	Eyelid spring or wire	□	Yes	□	No	Weight/Sandbag/Compression in use
□	Yes	□	No	Any type of prosthesis (eye, penile, etc.)					
□	Yes	□	No	Shunt (Spinal or intraventricular)					
□	Yes	□	No	Vascular access port and/or catheter					
□	Yes	□	No	Surgical staples, clips, metallic sutures					
□	Yes	□	No	Rectal thermometer					
□	Yes	□	No	Implant held in place by a magnet					
□	Yes	□	No	Radiation seeds or implants					
□	Yes	□	No	Cochlear, otologic, or other ear implants					

Previous Surgery

Please list all surgeries, regardless of when they occurred:

_____

_____

Reminder: The Magnet is Always On

Before entering the MR environment or MR system room, you must remove all metallic objects including hearing aids, dentures, partial plates, keys, beeper, cell phone, eyeglasses, hair pins, barrettes, jewelry, body piercing jewelry, watch, safety pins, paperclips, money clip, credit cards, bank cards, magnetic strip cards, coins, pens, pocketknife, nail clipper, tools, clothing with metal fasteners, & clothing with metallic threads. Please consult the MRI Technologist or Radiologist if you have any question or concerns BEFORE you enter the MR system room.

I attest that the above information is correct to the best of my knowledge. I read and understand the content of this form and had the opportunity to ask questions regarding the information on this form and MRI protocol. MRI clinical staff and the Clinical Coordinator must be notified if my status changes.

Signature of Person Completing Form _____ **Date/Time** _____

Printed Name _____

Form Information Reviewed By _____ **Date/Time** _____

Student Guide to Safety, Effectiveness, and Etiquette

General Safety

College faculty, staff, and students participating in clinical and laboratory experiences that require the handling of blood, blood products, or body fluids are required to observe standard precautions and safety guidelines prescribed by the U.S. Public Health Service.

To ensure safety of the student in lab and in clinical practicum, informed consent to participate will be appropriately documented upon entry to the Radiography Program. All measures are taken to protect the health and welfare of students and faculty participating in laboratory and clinical practicum.

To ensure safety during student interactions, students receive comprehensive information on indications, contraindications, precautions, physiological effects, potential risks, and the appropriate application of various modalities, and techniques prior to laboratory practice or clinical practicum. Program faculty or staff members supervise all lab sessions. Radiography students have the right to reasonable accommodations to allow full participation in laboratory and clinical practicum.

In the event of a minor accident, an incident/accident report is then completed by Daytona State College's campus security along with the student(s) involved and the incident will be reviewed by the program director or faculty member. A copy of the incident/accident report will be kept in the student's file. In the event of a serious accident, campus safety will be notified, and the 911 system will be initiated.

DSC offers no health services and is not responsible for costs for hospitalizations, special health care such as consultations with specialists, nursing care, surgical operations, or dental treatment. The next of kin on record may be notified in uncertain or emergency situations or serious illness. Students may be transported to a general hospital or by ambulance at their own expense when such action is necessary in the opinion of college officials.

Safety of Equipment

All laboratory equipment (non- energized) is used for skill development must be used under the supervision and/or approval of faculty members. In the event a student finds a piece of equipment in need of repair or identifies damaged equipment, he/she must immediately inform the program faculty.

Laboratory Policies

Radiography Lab courses may be held in the non-energized lab on campus as well as a designated x-ray room at Halifax Medical Center. Open practice/lab time will be allowed in the on campus non-energized lab at the discretion of the program faculty; the lab key can be obtained from program faculty.

Cleanliness in the Radiography Lab and Classroom

Thank you in advance for your cooperation and participation in keeping our facilities neat and clean. It is essential that all students work together to maintain an optimal learning environment. Please use trash containers to dispose of all trash.

General Safety Rules

1. Learn and be familiar with the evacuation procedures and the location of fire extinguishers and emergency defibrillators.
2. Immediately report hazardous conditions, broken equipment, and defective tools to your instructors.

3. Do not overload electrical circuits.
4. College property is no place for horseplay, fighting, teasing, and /or practical jokes; therefore, refrain from initiating or participating in any of the previous mentioned behaviors.
5. Do not use chairs, carts, tables, counters, boxes, rolling stools, or other substitutes for ladders or work platforms.
6. Disconnect all electrical cords by grasping the plug and carefully disengaging; NEVER yank the cord. Report any equipment that is damaged or in immediate need of repair to program faculty.
7. Wipe up all spills immediately, regardless of who caused the spill. If unable to completely clean up the spill or if the floor remains slick after cleaning, report the area to program faculty so they may contact Plant Services for clean-up.
8. The use of alcoholic beverages, narcotic drugs, or derivatives thereof on college property or at a college function is strictly prohibited; therefore, do not partake!
9. Use proper body mechanics at all times. Instruction in proper body mechanics will be introduced in the first semester and you are strongly encouraged to begin implementing these practices.

Fire Safety

1. When a fire is discovered in any building on campus, take the following steps immediately:
2. Warn others and activate fire alarms. Fire alarms in the Health Building are at either end of the hall adjacent to the Exit signs on the first floor.
3. Call 911 and the Daytona State College Campus Security (386) 506-4444 or have the department administrative assistant Maggie Muszka, (386) 506-3080 – contact these people and describe the problem and location.
4. If the fire is localized and small, attempt to put the fire out with one of the building fire extinguishers. Fire extinguishers are located on each floor.
5. Evacuate the building.
6. Stay clear. Everyone should remain at least 500 feet away from the burning building and out of the fire department's way. The fire department will ascertain when it is safe to re-enter the building.

On Campus Weather Related Safety

In the event of a tornado or any other weather-related emergency occurring, persons should seek shelter as soon as possible. Appropriate rooms to seek shelter in each building are mark with an anchor symbol and the acronym SHiP (Shelter In Place) in RED. Immediately go to one these designated rooms (preferably on the first floor). Stay away from glassed areas.

Additional information regarding Emergency Procedures is available Daytona State College Student Handbook you received at orientation on page 12.

Serious Injury or Illness Procedures

Report or have the department administrative assistant –Maggie Muszka, 386-506-3752 - or other college personnel report the injury/illness to the Daytona State College Campus Security 386-506-4444 or call 911. If trained, apply emergency first aid following universal precautions in handling body fluids including wearing of gloves and disposing of supplies properly.

Off Campus Injury or Illness

In the event of injury or illness while on clinical assignment, students should be provided with access to health services such as access to the emergency room or dialing 911 services. The student is responsible for the cost

associated with receiving the health care services. The agency is not responsible for any health care costs of the student. All accidents occurring while in clinic that results in-patient, hospital personnel, or personal injury and/or damage to equipment must be reported to the clinical instructor immediately.

Students may be required to fill out an incident report. Students are required to fully understand the safety methods of properly performing treatment procedures and operation of equipment before undertaking them.

Physical Plan/Building Problems

For any building or physical plant problem, notify the department administrative assistant and she will notify the correct department. This would include plumbing problems, spills, blown fuses or other electrical problems, heating/air conditioning malfunctioning, and ventilation problems.

Tuition and Fees

Radiography Students are responsible for paying Daytona State College tuition for all RTE and non-RTE courses enrolled in plus the additional lab fees for each course as listed below. Please see the tuition, fees, and refunds policy at the following link:

https://www.daytonastate.edu/tuition-and-fees/index.html

When the student registers for a class, the tuition and lab fee will be combined into the one amount paid for the course. Students provide their own living quarters, scrubs, health insurance and meals. Total cost for 24-month program is approximately $10,200.00 for In-state tuition and 16,000 for out-of-state tuition (This does not include non RTE pre-requisite/ co-requisite courses or required textbooks). There are 58 RTE credit hours taught within the 24-month program. There is a total of 77 credit hours required for program completion (19 credit hours are non-RTE pre-requisite and co-requisite courses).

Example of course cost breakdown for RTE 1111L for In-State Per Credit Hour:

Course	Title	Sem Hrs	Tuition	Access Fee	Tuition Total	Lab Fee Total	Grand Total
RTE1111L	Patient Care in Radiography Lab	1.00	$102.38	$4.93	$107.31	$189.00	$296.31

Example of course cost breakdown for RTE 1111L for Out-of-State Per Credit Hour:

Course	Title	Sem Hrs	Tuition	Access Fee	Tuition Total	Lab Fee Total	Grand Total
RTE1111L	Patient Care in Radiography Lab	1.00	$398.65	$4.93	$403.58	$189.00	$592.58

RTE1000 Fundamentals of Radiologic Technology, 1.0 sem hrs

This course is designed to provide an introduction to the program, profession, didactic and clinical environments. Content includes an overview of the fundamentals of radiographic positioning, radiographic equipment, creation of the radiographic image, imaging science professions, radiation protection and the history and role of the radiographer.
SU

RTE1001 Medical Terminology for Radiographers, 1.0 SEM hrs

Introduction to medical abbreviations, symbols and terms. A word-building system is introduced with related terminology. Understanding of radiographic orders and diagnostic reports are discussed. SU

RTE1111 Patient Care in Radiography, 2.0 SEM hrs
Provides extensive understanding of patient care and assessment, ethics, human diversity, body mechanics, medical-legal aspects, radiation protection and history and role of the radiographer. Content is designed to provide concepts of routine, emergency, and infection control procedures using standard precautions. Basic concepts of pharmacology/drug administration and venipuncture are presented. SU (Corequisite: RTE 1111L.)

RTE1111L Patient Care in Radiography Lab, 1.0 SEM hrs
Provides extensive understanding of patient care and assessment, ethics, human diversity, body mechanics, medical-legal aspects, radiation protection and history and role of the radiographer. Content is designed to provide concepts of routine, emergency, and infection control procedures using standard precautions. Basic concepts of pharmacology/drug administration and venipuncture are presented. SU A (Corequisite: RTE 1111.)
Lab Fee: 189.00

RTE1418 Radiographic Exposures and Processing, 2.0 sem hrs
A study of the factors that govern and influence the production of an image. Image processing, image receptor systems and accessory devices will be discussion. FA

RTE1457C Radiographic Exposures II, 2.0 sem hrs
A continuation of Radiographic Exposures and Processing, with emphasis on grids, image quality and technical factor selection. (Prerequisite: RTE 1418.) SP
Pre-Reqs: RTE1418

RTE1503C Radiographic Procedures I, 5.0 SEM hrs
A study of patient positioning, equipment usage and image quality evaluation for exams involving the respiratory system, digestive/biliary system and appendicular skeleton. Emphasis on radiation protection and patient care. SU

RTE1513C Radiographic Procedures II, 5.0 SEM hrs
Continuation of Radiographic Procedures I. A study of positioning, equipment usage and image quality evaluation of exams of the appendicular skeleton, organ system, shoulder girdle, and bony thorax. Detailed study of pharmacology involving contrast agents. (Prerequisite: RTE 1503C.) FA

RTE1523C Radiographic Procedures III, 5.0 sem hrs
A continuation of Radiographic Procedures II, with emphasis on the vertebral column, cranium and special projections for each system. Study of fluoroscopic and tomographic equipment. Course provides student with critical thinking and problem-solving methods to be utilized in image evaluation to assure appropriate anatomy and/or pathology demonstrated on properly positioned images with high image quality. Students also gain knowledge in performance of repeat analysis. (Prerequisites: RTE 1513C.) SP

RTE1804L Radiographic Clinical Education I, 1.0 SEM hrs
Supervised clinical education in performing radiographic procedures with emphasis on competency evaluation in the respiratory, appendicular and abdominal anatomy. SU B
Lab Fee: 185.00

RTE1814 Radiographic Clinical Education II, 2.0 sem hrs
Supervised clinical education in performing radiographic procedures with emphasis on competency evaluation in the appendicular and contrast studies. (Prerequisite: RTE 1804L.) FA
Lab Fee: 238.00

RTE1824L Radiographic Clinical Education III, 3.0 sem hrs
Supervised clinical education in performing radiographic procedures with emphasis on competency evaluation on trauma, pediatric patients, and procedures performed outside the department in the axial and appendicular skeletons. (Prerequisite: RTE 1814L.) SP
Lab Fee: 128.00

RTE 2061 Radiography Seminar, 2.0 sem hrs
This course is designed review information in preparation for the student to take the American Registry of Radiologic Technologist (ARRT) registry examination. The course will cover Patient Interactions and Management, Radiation Physics and Radiobiology, Radiation Protection, Image Acquisition and Technical Evaluation, Equipment Operation and Quality Assurance, Head, Spine and Pelvis Procedures, Thorax and Abdomen Procedures, and Extremity Procedures. The student will also be given simulated registry examinations for practice and assessment purposes.
SP

RTE2385 Radiation Biology and Protection, 2.0 SEM hrs
A study of the principles of cell radiation interactions and radiation protection principles. The student will develop an awareness of the potential harmful effects of radiation and safe usage of radiation for diagnosis and treatment. SP

RTE2563C Selected Radiographic Special Procedures I, 5.0 sem hrs
A study of techniques/procedures other than those used in diagnostic radiography to include anatomy of the cardiac, nervous and reproductive systems, cross-sectional anatomy, and imaging/therapeutic procedures for these systems. SU

RTE2573 Selected Radiographic Special Procedures II, 4.0 sem hrs
A continuation of RTE 2563C with emphasis on surgical imaging, computed tomography, magnetic resonance image, sonography, radiation therapy, nuclear medicine and interventional/catheterization procedures. (Prerequisite: RTE 2563C.) FA

RTE2613 Radiation Physics I, 2.0 SEM hrs
The physics of diagnostic imaging including analysis and synthesis of energy and matter and their relationship. Detailed study of the atom and the components needed for the production of x radiation. Study of the components involved in imaging systems with tests and procedures to evaluate them.

State and Federal regulations/guidelines will be discussed. Basic pharmacology will be instructed during this course. SU

RTE2623 Radiation Physics II, 2.0 sem hrs
A continuation of Radiation Physics with emphasis on the x-ray tube, equipment, x-ray production and interactions with matter. (Prerequisite: RTE 2613.) FA

RTE2782 Radiographic Pathology, 2.0 SEM hrs
This course provides knowledge of pathologic conditions seen radiographically and their effects on technique and positioning.SP

RTE2834L Radiographic Clinical Education IV, 3.0 sem hrs
Supervised clinical education in performing radiographic procedures with emphasis on competency evaluation on trauma examinations and procedures outside the department (portables and surgery). (Prerequisite: RTE 1824L.) SU
Lab Fee: 279.00

RTE2844L Radiographic Clinical Education V, 3.0 sem hrs
Supervised clinical education in performance of radiographic procedures with emphasis on competency evaluation in Specialized Procedures: CT, MRI, Invasive Radiology, Surgery (Mobile), Radiation Therapy (optional), Nuclear Medicine (optional), Mammography (optional), Cardiac Interventional Procedures and in-service on osteoporosis exams. (Prerequisite: RTE 2834.) FA
Lab Fee: 199.00

RTE2854L Radiographic Clinical Education VI, 3.0 SEM hrs
Supervised clinical education in performance of radiographic procedures with emphasis on Final Competency Exams. Supervised clinical education in performance of radiographic procedures with emphasis on competency evaluation in Specialized Procedures: CT, MRI, Invasive Radiology, Surgery (Mobile), Radiation Therapy (optional), Nuclear Medicine (optional), Mammography (optional), Cardiac Interventional Procedures and in-service on osteoporosis exams. (Prerequisite: RTE 2844L) SP
Lab Fee: 220.00

Active Clinical Affiliation Sites

• Advent Health Daytona Beach	301 Memorial Medical Pkwy, Daytona Beach, FL 32117
• Advent Health Deland	701 W. Plymouth Avenue, Deland, FL 32720
• Advent Health Deltona ER	3108 Howland Blvd., Deltona, FL 32725
• Advent Health Fish Memorial	1055 Saxon Blvd., Orange City, FL 32763
• Advent Health New Smyrna Beach	401 Palmetto Street, New Smyrna Beach, FL 32168
• Advent Health New Smyrna Beach Imaging	125 Memorial Medical Pkwy, New Smyrna Bch, FL
• Advent Health Ormond Beach Imaging	335 Clyde Morris Blvd Ste 250, Ormond Beach, FL 32174
• Advent Health Orthopedics & Sports Medicine	61 Memorial Medical Pkwy Ste 2801, Palm Coast, FL
• Advent Health Palm Coast	60 Memorial Medical Parkway, Palm Coast, FL 32164
• Advent Health Port Orange ER	5811 South Williamson Blvd., Port Orange, FL 32128
• Advent Health Palm Coast Parkway	1 AdventHealth Way, Palm Coast, FL 32164
• Florida Hospital New Smyrna Healthcare	600 Palmetto Street, New Smyrna Beach, FL 32168
• Halifax Health Medical Center	303 N. Clyde Morris Blvd, Daytona Beach, FL 32114
• Halifax Medical Center - Port Orange	1041 Dunlawton Avenue, Port Orange, FL 32127 6649
• Medical Center of Deltona, Inc.	3300 Halifax Crossing Blvd, Deltona, FL 32725
• New Smyrna Beach Radiology Associates	1998 SR 44 Ste 3, New Smyrna Beach, FL 32168
• Port Orange Imaging	1195 Dunlawton Avenue, Port Orange, FL 32127
• Radiology Associates Imaging Deltona	3400 Halifax Crossing Blvd, Suite 170, Deltona, FL 32725
• The Orthopedic Clinic	1865 LPGA Blvd., Daytona Beach, FL 32117
• Town Center Imaging	21 Hospital Drive, Suite 130, Palm Coast, FL 32164
• Twin Lakes Imaging	1890 LPGA Blvd, Suite 110, Daytona Beach, FL 32117

A Clinical Contact List will be available to all students and faculty on Trajecsys.

Medical Condition Disclosure and Release

(Please print)

I, (student name) _____release DAYTONA STATE COLLEGE from any and all liability from injury, aggravation/complications, or injury to others as direct result of my disability, which is (state health problem) _____.

Student Signature _____ **Date** _____

Printed Name _____

Release of Information from Physician

TO:

I hereby request information concerning my health record be released to Assistant Chair, program, DAYTONA STATE COLLEGE.

(Please Print)

Name _____

Address _____

Social Security # _____

Student Signature _____ **Date** _____

Information Release Form

I give the DAYTONA STATE COLLEGE Radiography Program permission to release information regarding my academic/clinical performance and attendance to prospective employers and/or academic institutions requesting references.

Date _____ **Signature** _____

SS# _____ **Print Name** _____

Statement of Understanding

As a student in the Radiography program, I am aware that I:

1. May be photographed, audiotaped, or videotaped as part of class, lab, or clinical activities.
2. Will be expected to participate as a "patient" during class or lab activities. Precautions and contraindications for the procedure will be discussed prior to such participation. (Any student has the right to decline participating as patient with prior notification of the instructor).
3. Will be responsible for uniform, travel, meals, and other expenses related to clinical courses.
4. Will be working with patients during each clinical practicum and may be exposed to illness, blood, and other body fluids.
5. Will be required to undergo a drug screen, and a criminal background check, at my own expense in order to participate in each clinical course.

I acknowledge that I have read and understand the policies and procedures of the Radiography Program. I agree to abide by all rules, policies and procedures contained herein. I consent to allow the Program Director and ACCE to maintain copies of my medical health records in my student file. I also agree to follow all safety procedures in all classroom and clinical settings to the best of my ability. I am aware that this handbook is intended as a guide; and policies and procedures described herein may be changed without notice.

Student Signature _____ **Date** _____

Printed Name _____

Statement of Confidentiality

It is not ethical to share information with other individuals regarding patients, facilities, clinical instructors, classmates, examinations, or lab skill checks/practicals. This includes placing the patient's name or other identifying items on competency forms, class presentations, projects, etc., failing to obtain written permission to utilize pictures or videos of a patient in presentations, and talking about patients or lab skill checks/practicals to your classmates. Violation of this may result in probation or withdrawal from the Radiography program.

I _____understand that all information about the patient condition is confidential and should not be discussed in any public area inside or outside the facility/school. I will comply with this confidentiality statement.

Student Signature _____ **Date** _____

Printed Name _____

Learning Contract

The learning environment is the second teacher in the classroom; and a positive attitude toward maintaining this environment will help you to be successful. This contract includes the student behaviors that the instructor considers important to achieve the goal demonstrating positive behaviors and attitudes in the classroom, which will contribute to lifelong learning.

- Reading assignments are clearly designated in the course syllabus. I agree to prepare myself for class by reading assignments and completing assigned projects on time.
- Missed classes are time that is lost. There is no way to recreate the discussion and there is no guarantee that there will be opportunities to revisit topics covered during class. I understand that I have a responsibility for obtaining any material missed, from a classmate. I also understand that I have a responsibility to contact my instructor for needed clarification or remediation for missed material.
- Tardiness and missed class time affect all students and interruptions of any kind disrupt the learning process. I agree to arrive on time for class and clinicals and remain until the session is over.
- I will make an effort to learn about my classmates and be sensitive to cultural values and diversity especially with regard to expression of ideas and feelings that may differ from mine.
- I will display a positive and respectful attitude toward my peers, professors, and the learning environment.
- I understand that my work will be evaluated constructively and that specific suggestions will be made by the instructor to assist my learning to become a competent professional. I will welcome new ideas and approaches to learning and demonstrate flexibility and willingness to consider them.
- I will arrange meetings with the instructor in advance and at mutually convenient times. I understand that the instructor will post office hours and I will respect the need to sign up in advance.
- Disruptive behavior of any type away from the learning process. If I demonstrate such behavior, I understand that I will be dismissed from the class after one verbal warning and be subject to loss of Generic Abilities points. Subsequent disruption may result in further reprimand.

Student Signature _____ **Date** _____

Printed Name _____

Student Supervision Standards

Purpose: The Radiography Program must adhere to the JRCERT Standards for an Accredited Educational Program in Radiologic Sciences to maintain its accreditation status. The Florida DOH Radiologic Technology Program only recognizes educational programs meeting or exceeding the standards set forth by the JRCERT.

It is a primary goal of the Daytona State College Radiography Program to consistently exceed these standards.

To protect our patient population from unnecessary radiation exposure.

Standard 5

5.4 The program assures that medical imaging procedures are performed under the appropriate supervision of a qualified radiographer.

Explanation:

Appropriate supervision assures patient safety and proper educational practices.

The JRCERT defines direct supervision as student supervision by a qualified radiographer* who:

- reviews the procedure in relation to the student's achievement,
- evaluates the condition of the patient in relation to the student's knowledge
- is physically present during the conduct of the procedure, and
- reviews and approves the procedure and/or image.

Students must be directly supervised until competency is achieved. Once students have achieved competency, they may work under indirect supervision.

The JRCERT defines indirect supervision as student supervision provided by a qualified radiographer who is immediately available to assist students regardless of the level of student achievement.

Repeat images must be completed under direct supervision. The presence of a qualified radiographer during the repeat of an unsatisfactory image assures patient safety and proper educational practices.

Students must be directly supervised during surgical and all mobile, including mobile fluoroscopy, procedures regardless of the level of competency.

Once a student has demonstrated competency, which is denoted by an X next to the category on the student clinical records (the students also must take the responsibility to notify the radiographers of their status), students can perform exams under indirect supervision.

**Qualified Radiographer – A radiographer possessing ARRT certification or equivalent and active registration in the pertinent discipline with practice responsibilities in areas such as patient care or administration.*

Student or Technologist Signature _____ **Date** _____

Acknowledgement

This is to acknowledge I have received a copy of the Radiography Program Policy Manual. I have read it carefully and will comply with the policies for the Radiography Program as stated in the Manual as a part of my agreement for my Radiologic Sciences Education at **Daytona State College**.

Student Signature _____ **Date** _____

The above acknowledgment must be signed and returned to the Education Coordinator following review of this manual during Orientation.

Previous Radiation Exposure History

Name (Last/First/MI/Maiden) _____

Physical Mailing Address _____

_____

Date of Birth _____

Last 2 Digits of SS# _____

Have you previously had a radiation monitor? ☐ Yes ☐ No

Please complete the information below for any other facilities where you have been assigned a radiation monitor:

Facility	Mailing Address	Dates

I certify that the above information is correct and complete to the best of my knowledge and authorize the release of my occupational radiation exposure history to Daytona State College.

Signature _____ **Date** _____

The above information is used to develop a database of your exposure history. The information is confidential.

Ordered	Rec'd	Part#

Radiation Protection Policy Acknowledgement

This is to acknowledge I have received a copy of the Radiography Program Radiation Protection Policy Starting on page 56 of the student manual. I have read it carefully and will comply with the policies for the Radiography Program as stated in the Manual as a part of my agreement for my Radiologic Sciences Education at **Daytona State College**.

Student Signature _____ **Date** _____

The above acknowledgment must be signed and returned to the Education Coordinator following review of this manual during Orientation.