



SAINT FRANCIS SCHOOL OF RADIOGRAPHY

Bachelor Of Science
Imaging Technology
2018-2019 Handbook

RESURRECTION UNIVERSITY
NURSING & HEALTH SCIENCES

Resurrection University Saint Francis School of Radiography
Bachelor of Science Imaging Technology
Entry Level Professional Track
2018-2019
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This Programmatic Catalog was developed to clarify specific policies and criteria that are unique to the Saint Francis School of Radiography. All general policies and procedures may be found in the University Catalog on the Resurrection University Website. [Resurrection University Website](#)

Policies are subject to change at any time. Students will be notified of such changes in writing and a signature of acknowledgement would be required.

Resurrection University
Saint Francis School of Radiography
Bachelor of Science Imaging Technology (BSIT)
2018-2019 Program Handbook
For the Entry Level Track

About the School of Radiography

Brief History - Saint Francis School of Radiography celebrated its 70th in 2016!!

In October 1995, the Saint Francis Medical Proceedings, Volume 4 Number 2(a), published a commemorative issue about the history of Department of Radiology and the program. Following is the excerpt:

“The two programs of which St. Francis Department of Radiology is most proud are the educational programs of Radiology Residency and the School of Radiologic Technology. The School of Radiologic Technology was approved for training on November 1, 1945 and is this year celebrating its semi-centennial. The School, which began with only minimal formal academic work, has progressed to a position where it is now recognized as one of the finest training school in the Midwest, graduating eight to ten students annually in its two year program. Not only do the graduates achieve an outstanding record on the Radiologic Registry but are recognized as extremely desirable employees following their graduation as they move on to many of the hospital in our area.”

The program has since evolved beginning with a name change to the Saint Francis School of Radiography (SFSOR), as the technology has also evolved. In 1977, the name Radiologic Technicians was changed to Radiologic Technologists by the American Society of Radiologic Technologists and further to be identified as Radiographers. The program has expanded beginning in 2000 when it added clinical education settings throughout the Chicagoland region, graduating approximately 20 students each year. Next the program offered a dual program with Oakton Community College in Radiologic Technology for those seeking that an Associate Degree.

And in July 2015, the Program partnered with Resurrection University to advance the profession to a Bachelor’s Degree. The new degree was called Bachelor of Science in Imaging Technology. There are 2 tracks in this degree. One is for those that are already radiographers that want to complete their Bachelor’s Degree in Radiography and for those you are beginning the entry level into the profession. And now.....It’s your turn to make your mark on the Program!

This handbook is dedicated for the entry level track and here is what you need to know.

Mission of the Program The Saint Francis School of Radiography is committed to excellence in education. We provide the healthcare community with competent, entry-level professionals in the field of Medical Imaging. The graduate acquires the knowledge and clinical experience necessary to qualify for the National Registry examination.

Philosophy This program has been developed to provide the necessary technical skills to promote responsible and dedicated technologists. The student’s professional capacity is built on progressive maturity, social, and emotional values. It is of the utmost importance that he/she learns the meaning of human dignity and his/her responsibility to the patient, the profession and him/herself. By incorporating the Resurrection University Core Values of Compassion, Accountability, Respect, Excellence, and Service, the School of Radiography is dedicated to developing knowledgeable, patient-centered healthcare professionals.

Resurrection University

Resurrection University has been in existence for over one hundred years providing quality education. Its previous role was that of educating nursing professionals as the West Suburban College of Nursing. As part of this rich heritage, the Saint Francis School of Radiography is an integral part of the University.

The Program Mission reflects the Resurrection University of:

Mission

Resurrection University educates students to become healthcare leaders by cultivating a diverse learning community based on the Catholic tradition of faith, hope, and healing.

Vision

To be a learning community that thinks critically and embraces change, inspiring the next generation of health care professionals and leaders.

Values

Compassion - Accountability - Respect - Excellence - Service

Program Goals and Student Learning Outcomes

In support of the program's mission statement, the program has developed the following:

1. Students will demonstrate effective communication skills.

Student Learning Outcomes:

- Students will demonstrate effective communication skills on the clinical setting.
- Students will demonstrate effective written communication in the classroom setting.
- Students will be able to verbally evaluate radiographs.

2. Students will develop critical thinking skills for application in the clinical setting.

Student Learning Outcomes:

- Students will adapt standard protocols for non-routine examinations.
- Students will critique images for diagnostic quality and devise necessary factors for quality improvement.

3. Students of the program will be clinically competent.

Student Learning Outcomes:

- Students will demonstrate accuracy in positioning skills.
- Students will select appropriate technical factors.
- Students will demonstrate proper radiation protection practices.

4. Students will model professionalism.

Student Learning Outcomes:

- Students will demonstrate high ethical standards.
- Students will summarize their professional development career plan.

Accreditation

The Joint Review Committee on Education in Radiologic Technology accredits the Resurrection University Saint Francis School of Radiography.

(JRCERT)

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Chicago, Illinois 60606-3182 (312) 704-5300

www.jrcert.org

The Saint Francis School of Radiography (SFSOR) consistently strives to exceed the minimum requirements for compliance with all *JRCERT Standards for an Accredited Educational Program in Radiography*. If a student has cause for concern that the SOR program may not follow any standard(s), they are encouraged to report the allegation, in writing, to the Director. The report must be submitted within ten academic days of the alleged non-compliant event. The

Director will work with the student and any other involved program member to clarify or resolve the issue of alleged non-compliance. If a satisfactory resolution cannot be attained, the student is encouraged to report the alleged issue of non-compliance directly to the JRCERT.

Resurrection University is also accredited by the Higher Learning Commission (HLC) and the Illinois Board of Higher Ed (IBHE).

JRCERT Standards

Standard One: Integrity

The program demonstrates integrity in the following: representations to communities of interest and the public, pursuit of fair and equitable academic practices, and treatment of, and respect for, students, faculty, and staff.

Standard Two: Resources

The program has sufficient resources to support the quality and effectiveness of the educational process.

Standard Three: Curriculum and Academic Practices

The program's curriculum and academic practices prepare students for professional practice.

Standard Four: Health and Safety

The program's policies and procedures promote the health, safety, and optimal use of radiation for students, patients, and the general public.

Standard Five: Assessment

The program develops and implements a system of planning and evaluation of student learning and program effectiveness outcomes in support of its mission.

Standard Six: Institutional/Programmatic Data

The program complies with JRCERT policies, procedures, and **STANDARDS** to achieve and maintain specialized accreditation.

Academic Program

Curriculum Overview Radiologic Technology is the art and science of using x-rays to produce images of the bones, organs, and vessels of the human body. Students are educated in utilizing x-ray equipment and techniques, proper patient positioning, radiation protection methodologies, producing quality diagnostic images while practicing excellent patient and family centered care. In conjunction with related didactic courses, students apply their knowledge during integrated clinical experiences in area imaging departments. The Program is five semesters and is approximately 21 months in length. Our curriculum follows the guidelines specified by the American Society of Radiologic Technologists.

Semester 1

- Introduction to Radiography
- Principles of Radiation Protection
- Ethical, Legal and Physical Methods of Patient Care
- Radiographic Procedures I
- Anatomy and Physiology – Skeletal
- Clinical Education I
- **Total Credits: 16.5**

Semester 2

- Principles of Exposure I
- Radiographic Image Processing
- Cross Sectional Anatomy
- Radiographic Procedures II
- Clinical Education II
- **Total Credits: 16.5**

Semester 3

- Radiographic Procedures III
- Exposure II
- Radiographic Physics
- Radiographic Imaging
- Clinical Education III
- **Total Credits: 15**

Semester 4

- Radiographic Procedures IV
- Introduction to Quality Assurance
- Radiation Biology
- Image Presentation and Evaluation
- Computer Applications in Radiography
- Clinical Education IV
- **Total Credits: 15.5**

Semester 5

- Radiographic Procedure V
- Clinical Education V
- Registry Review
- **Total Credits: 7**

Course Descriptions

Semester 1

IMT 311 Introduction to Radiography - This course is an introduction to imaging technology. The content is designed to prepare students for the upcoming educational studies and clinical experiences. Topics include policies and procedures of the program and radiology departments, basic medical terminology in radiography, and introduction to imaging, equipment, radiation protection, safety measures, basic patient care methods, positioning principles, and roles of medical imaging professionals as members of the inter-professional health care team.

IMT 313 Ethical, Legal, Physical Methods of Patient Care - This course will familiarize the student with basic concepts of Patient and Family Centered Care and techniques used in general patient care as it relates to Radiography. It will emphasize the radiographer's role in multiple clinical settings. It will also acquaint the student with the ethical and legal responsibilities of the radiographer as part of the health care team. Consideration for the physical and psychological needs of the patient and family will be reviewed. Routine and emergency patient care procedures are described, as well as infection control procedures using standard precautions.

IMT 315 Radiographic Procedures I - The student is introduced to positioning principles, terminology and topographical landmarks. Anatomy, positioning, proper Patient and Family Centered Care, and radiographic examinations of the thorax, abdomen, and contrast studies are covered. Correlation of radiographs with positioning of the anatomical part for optimal diagnostic images, technique selection, patient pathology, and radiation safety is explored.

AH 310 Skeletal Anatomy - This course will provide the student with complete understanding of the skeletal system. Bone development will also be covered. Identification of bony anatomy for the upper and lower extremities, thorax, vertebral column, pelvis and skull will be covered as well as function and articulation.

IMT 312 Principles of Radiation Protection - This course will acquaint the student with the principles of radiation protection including different sources of ionizing radiation and hazards involving the technologist, patient, and the general public. Proper protective measures will be introduced. Radiation monitoring and survey equipment are also presented.

IMT 316 Clinical Education I - Using the competency-based education model, students will be supervised with both direct and indirect supervision. Students will gain experience to become competent entry-level radiographers. Students will become acquainted with radiologic imaging procedures addressed in IMT 315 Procedures 1. Students will learn and utilize appropriate Patient and Family Centered Care methods, radiation safety, technique selection, and equipment operation.

Semester 2

IMT 321 Principles of Exposure I - This course is intended to educate the student in factors that affect radiographic exposures and the principles and devices involved in technique formation. Fundamentals of exposure, concerned with production and recording of the radiograph image, will be presented. Radiographic quality factors of contrast, density, detail, and distortion will be reviewed. Clinical correlation of these principles through laboratory experience will be explored. This course also focuses on the formulation of radiographic techniques based on established principles, formulas and conversions.

IMT 325 Radiographic Procedures II - The student is introduced to positioning principles, terminology and topographical landmarks. Anatomy, positioning, proper Patient and Family Centered Care, and radiographic examinations of the upper and lower extremities are covered. Correlation of radiographs with positioning of the anatomical part for optimal diagnostic images, technique selection, patient pathology, and radiation safety is explored.

IMT 322 Radiographic Image Processing - This course is designed to acquaint the student with an understanding of the components and operating principles of image processing, basic maintenance and troubleshooting techniques. Radiographic image artifacts will be identified. Content is designed to impart an understanding of the components, principles and operation of digital imaging systems found in Diagnostic Radiology. Factors that impact image acquisition, display, archiving and retrieval are discussed. Film based processing will also be addressed.

IMT 324 Cross Sectional Anatomy - This course is designed to introduce cross sectional anatomy including identification of vital anatomy and physiology presented through lectures and sample radiography. Radiographic anatomy and pathology of head, thorax, and abdomen/pelvis will be presented.

IMT 326 Clinical Education II - Building upon the competency-based education model, students will be supervised with both direct and indirect supervision. Students will continue to become acquainted with radiologic imaging procedures, appropriate Patient and Family Centered Care methods, radiation safety, technique formulation, and equipment operation. Students will complete clinical competencies and objectives taught in Procedures I and II relating to contrast studies and upper extremities.

Semester 3

IMT 331 Principles of Exposure II - This course is intended to educate the student in factors that affect radiographic exposures and the principles and devices involved in technique formation. Radiographic quality factors of contrast, density, detail, and distortion will be reviewed. Beam restriction and radiographic grids will be introduced. The formulation of radiographic technique will be continued. Clinical correlation of these principles through laboratory experience will be explored.

IMT 335 Radiographic Procedures III - Didactic and laboratory education continues with emphasis on the bony thorax and the vertebral column. Correlation of radiographs with positioning of the anatomical part for optimal diagnostic images, technique selection, patient pathology, and radiation safety is explored while maintaining Patient and Family Centered Care.

IMT 336 Clinical Education III - Building upon the competency-based education model, students will be supervised with both direct and indirect supervision. Students will continue to become acquainted with radiologic imaging procedures, appropriate Patient and Family Centered Care methods, radiation safety, technique formulation, and equipment operation. Students will complete clinical competencies and objectives taught in Procedures I, II, and III relating to upper and lower extremity work, pediatric chest and extremity exams, and vertebral column. Students will participate in trauma shifts and optional modalities.

IMT 414 Radiographic Physics - This course discusses the fundamental concepts of energy and measurements, atomic structure, electricity, and electromagnetism. It will also discuss circuitry panels, transformers, generators, rectifiers, and mathematical considerations of each. Quality assurance for specific equipment will be addressed.

IMT 412 Radiographic Imaging - This course explores the basic principles of CR, DR, and PACS. The different advanced imaging modalities including Special Procedures (Interventional Radiography-IR), principles of general of tomography, computed tomography, magnetic resonance imaging, nuclear medicine, PET scan, and mammography are presented. Students will explore an area of interest concerning any of the electromagnetic spectrum components through a research paper and oral presentation.

Semester 4

IMT 415 Radiographic Procedures IV - The student continues to study advanced radiographic positioning. Specialized radiographic procedures include radiography cranial and facial studies. Specialty modalities will also be explored. Correlation of radiographs to positioning of the anatomical part for optimal diagnostic images, technique selection, patient pathology, and radiation safety while using Patient and Family Centered Care is explored.

IMT 422 Introduction to Quality Assurance - This course is designed to acquaint students with Quality Assurance and Quality Control and the governing agencies and regulations responsible for monitoring performance. Control measures used within a Radiography Department, quality test tools and methods of application are explored. Fixed and variable kVp systems and AEC devices, image-intensified fluoroscopy, recording media and techniques, will all be addressed

IMT 424 Radiation Biology - This course deals with the effects of ionizing radiation on living tissue, radiation effects on cells and factors affecting cell response. Factors affecting biological responses are presented, including acute and chronic effects of radiation.

IMT 423 Image Presentation and Evaluation - This course is intended to expand the necessary skills to determine a radiograph's acceptability and to learn to correct errors on the image. It is to educate the student to be independently responsible for assessing radiographic images, and then presenting them to the class. This evaluation will be used to improve radiographs for future studies. Case studies will include chest, abdomen, contrast studies, extremity work, spine, ribs and skull work.

IMT 421 Computer Applications in Radiography - This course gives the student a basic overview of computer programs in Radiography. It allows for computer review of different programs and previous education components regarding Radiography.

IMT 416 Clinical Education IV - Continuing to build upon the competency-based education model, students will be supervised with both direct and indirect supervision. Students will continue to familiarize themselves with radiologic imaging procedures, appropriate Patient and Family Centered Care methods, radiation safety, technique formulation, and equipment operation. Students will complete clinical competencies and objectives taught in all Procedures courses, including cranial work.

Semester 5

IMT 425 Radiographic Procedures V - The student studies advanced radiographic positioning including specialized contrast studies, trauma, and additional pediatric work. Many non-routine radiographic views are covered. Specialized

radiographic procedures include radiography of the selected anatomical systems: urinary, central nervous, reproductive, and other skeletal anatomy. Specialty modalities will also be explored. Correlation of radiographs to positioning with positioning of the anatomical part for optimal diagnostic images, technique selection, patient pathology, and radiation safety, while using Patient and Family Centered Care is explored.

IMT 438 Registry Review - This provides a review of the major content areas appearing in the national certification examination. This course requires class participations, review of radiation protection, equipment operation and maintenance, image production and evaluation, radiographic procedures, and patient care. Students will be given multiple content area examinations and mock registry examinations.

IMT 426 Clinical Education V - Continuing to build upon the competency-based education model, students will be supervised with both direct and indirect supervision, as appropriate. Students will continue to familiarize themselves with radiologic imaging procedures, appropriate Patient and Family Centered Care methods, radiation safety, technique formulation, patient pathology, and equipment operation. Students will complete all clinical competencies and objectives taught in Procedures IV relating to cranial work. Terminal/final competencies assessing the students' progress will also be used as a conclusive evaluation of the student's clinical skills.

Radiation Safety

It is the goal of this program to keep radiation exposures to the students as low as reasonably achievable. Radiation Protection is an extremely important right of both the student and patient. Students may not make exposures of anyone other than a patient. All exposures using ionizing radiographic equipment are to be made for medically valid reasons, and with a physician's order. Radiation Protection is explained first during Introduction to Radiography orientation and then in the first semester course. The principle of **ALARA** is taught and addressed throughout the educational experience. That principle must be strictly adhered to. In the clinical setting, students must employ gonadal shielding and collimation whenever applicable. When completing competency testing, failure to use the above-mentioned devices would result in automatic failure for that given competency. Collimation, gonadal shielding, and exposure techniques will all be evaluated for radiographic competencies when "testing out." Repeat radiographs must be completed under direct supervision of a registered technologist to eliminate the risk of unnecessary radiation dose to the patient. Failure to comply will result in disciplinary action.

Students will adhere to the American Registry of Radiologic Technologists' Code of Ethics; "The Radiologic Technologist utilizes equipment and accessories, employs techniques and procedures, performs services in accordance with accepted standards of practice, and demonstrates expertise in limiting the radiation exposure to the patient, self, and other members of the health care team."

Each student will be issued Optically Stimulated Luminescence Dosimeter monitors (OSL). They are always to be worn while in the clinical setting. OSLs must be changed the first day of each quarter. It is the student's responsibility to change the OSL at the proper time. Loss, damage, or accidental exposure to the OSL must be reported to the Radiation Safety Officer. The student must pay the replacement fee for that monitor. OSLs are not to leave the hospital environment. If the student does not have his/her OSL for the clinical day, the student will be sent home and the time missed will be made up. The Radiation Safety Officer reviews quarterly badge reports and will counsel students with unusual or excessive readings. The current quarterly report is posted in the Radiation Safety Officer's binder in the office. Both the students and the Clinical Coordinator must initial that they have read the current report. A cumulative exposure report is placed in the student's permanent file upon graduation.

Students can take exposures of phantom body parts in the simulation lab under Direct Supervision only. Radiation protection principles apply in the simulation in the same respect as in clinical setting. Only phantom body parts can be x-rayed in the simulation lab. There are no exceptions to this rule. Students will be issued OSL badges that will be only worn in the simulation lab and will be stored in the simulation center. Students are responsible for having their OSL badges in the simulation lab. If a student does not have their badge, they will be sent home to get it and any time would need to be made up or the student will return to the clinical setting and the missed simulation day will be made up.

Radiation Protection Policy - Summarized

The responsibility of the student technologist is to maximize the benefit from each x-ray exposure and to minimize the radiation received by the patient.

1. Screening

- Inform patient of risks of ionizing radiation which is dependent on type of procedure.
- Female patients (aged 10-55), are asked of chance of pregnancy possibility and answer documented.
- Documentation of the beginning date of the last menstrual period is required.
- If chance of pregnancy, a pregnancy test is ordered before radiography exam may be started.

2. Technique

- Take time to position the patient properly
- Choose exposure factors based on the patient's body habitus
- Adhere to As **Low As Reasonably Allowable (ALARA)** principles

3. Collimation

- Limit the size of the beam to include only the area of interest
- There is NEVER justification for a beam larger than the image receptor
- Collimation improves image quality
- Collimation may be the single most important element the student can do to protect the patient

4. Gonadal Shielding

- Use gonadal shielding whenever this will not interfere with the diagnosis
- Gonadal shields should be used on any patient in the reproductive years or younger

5. Protecting Yourself

- The student should protect oneself by employing the same techniques used to protect the patient
- Always wear lead apron, thyroid shield (collar), and gloves when appropriate
- NEVER STAND IN THE PRIMARY BEAM!

6. Supervision Level

- **Only perform at the level of competency one has achieved with the correct supervision levels involved.**
- **NEVER repeat a radiograph without the direct supervision of a technologist**
- **Complete levels of supervision are detailed here in Clinical Education section**

7. Personnel Monitoring (OSL)

- Detailed direction on badge placement will be fully explained in the Introduction to Radiography Course.
- If the OSL is inadvertently laundered, it is destroyed. DO NOT THROW IT AWAY. Bring it to the Radiation Safety Officer Clinical Coordinator and it will be sent back to the company. A spare OSL will be given until the quarter is finished.
- The OSL cannot be worn while receiving medical or dental x-rays. The OSL is for OCCUPATIONAL dose only.
- The current quarterly report is posted as soon as it is received in the school (approximately within one month of the end of the previous quarter) in the Clinical Coordinator's office and the student needs to review and initial the report. These reports do not share any personal information other than student name.
- Students will be given their individual summary report post-graduation.
- Students should not receive more than 125 mrem/quarter.

8. Overexposure

- Students that receive over this amount will be counseled, and the incident will be discussed with the Radiation Safety Officer and the Clinical Coordinator.
- If the student continues to receive over the recommended dose limits, removal from the clinical area will occur.

Student Pregnancy

All students will review the Nuclear Regulatory Commissions (NRC) Regulatory Guide 8.13 (enclosed attachment at the end of the Handbook), which outlines prenatal exposure and risks. This document is presented to the student during the Radiation Protection Course and can also be found on the Internet. Written disclosure of a pregnancy is voluntary. The student also has the option for written withdrawal of declaration at any time. This document must be submitted to the Program Director/Dean and it will be placed in the student's file. Once declared, the student will meet with the Radiation Safety officer and the Clinical Coordinator to help clarify questions and guidelines when selecting an option. Following the delivery or cessation of pregnancy, the primary care provider or obstetrician must document that the student may return to class and clinical without restrictions. This document must be submitted to the Program Director.

Option 1: Full leave of absence: The student may select to take a full leave of absence (LOA) from the didactic and clinical classes. This may be for up to one year in length. The student may return the following year at the beginning of the semester that she left the previous year. This option will lengthen the program for the student.

Option 2: A partial leave of absence: The student may select to take a leave of absence from clinical courses but continue in the didactic courses. The student would then return to clinical classes as soon as her physician has given her a fitness duty form. If there is an absence of more than three weeks, it will result in continuation of the program from the beginning of the last full semester attended. She must return to clinical courses within one year of the course departure. This option will lengthen the program for the student.

Option 3: Continuation of the Program: The student may select to continue in the program at the same pace as normally scheduled. She must have a fitness for duty note from her physician. One day of clinical absence is allowed during each semester. The student must meet with the physicist to review Radiation Protection Policies. At this time, the student is given an additional fetal monitor badge to wear for the duration of the pregnancy. The student will continue in all clinical areas as scheduled. Wrap around lead aprons are required to be worn in fluoroscopy and surgical rotations. OSLs will be closely monitored to assure safe fetal dose limits. Department standards policy will be followed. The student may continue in clinical classes until her physician deems her unfit for duty. Program length may be affected dependent upon the student's time requirements for delivery and post-partum. Maximum time for classroom/clinical absence is three weeks without repeating the semester (per Medical Leave policy). All scheduled clinical rotations must be completed and if desired, may be completed or partially completed, prior to Pregnancy Leave.

Clinical Education

Clinical Obligations, Hours, and Rotations To provide learning situations for a student to be clinically competent as well as having a general understanding of the many areas of diagnostic imaging, students will complete many clinical rotations during the 21-month program. Students will also be introduced to the basic concept of IPE (Interprofessional Education) throughout their experiences with RESU. Clinical and classroom classes will not exceed 40 hours per week. If there is a need for clinical make-up hours, the student can voluntarily determine a written schedule with the Clinical Coordinator and Clinical Instructor that is agreed upon by all.

The time of day and days of the week may vary upon the clinical semester. The hours change as the clinical competencies of the students' increase. Clinical hours are as follows:

- Day shift (Mon-Fri) 8:00 AM to 3:30 PM
- PM - Trauma shift rotations 12:30 PM to 8:00 PM of 3 days in Semester 3 and also in Semester 4
- Weekend - Trauma shift rotation (Fri. & Sat. Evening) 2:00 PM to 9:00 PM - two days in Semester 4

Clinical schedules define a week from Monday through the following Saturday. Students are responsible for checking their own schedules. The time and rotation scheduled **MUST** be adhered to. The Clinical Instructors, prior to the scheduled date, must approve all schedule changes.

If the student is scheduled for weekend clinical experience, he/she receives days off during the week so that 40 hours per week is not exceeded. All days off are arranged around didactic class schedules. Students are not to be substituted for the paid labor of a technologist. The school believes that the variety of shifts included in the program benefits the student in two ways:

- It creates a well-rounded radiographer with experience gained not only in routine examinations but also in caring for emergency room patients and adhering to trauma protocols, working closely with the team from the Emergency Department and other areas. It allows the student to acquire increased responsibilities and applying critical thinking concepts with the supervision of a technologist.
- Not all Radiography employment consists of daytime hours, so the opportunity to experience the variety of shifts is provided. This enables the students to experience the different working environments within the hospital setting. Trauma and emergency radiography occurs throughout the entire day. Work flows in radiology are dependent on the type of weather conditions, social and recreational activities that people experience. Changing the hours of clinical operation enables the students to experience a variety of patients and examinations in different volumes.

In educating a well-rounded radiographer, it is necessary to learn many different aspects of healthcare. Students will complete classroom instruction and practicum in sterile and aseptic technique, transfer of patients, oxygen profusion, and care of medical equipment, phlebotomy, and basic vital signs.

During the program, the student will have the opportunity to experience all phases of Radiology and its related fields. Listed below are the areas that students rotate through:

General Radiography	Fluoroscopy
Surgery	Pediatric
Cardiac Cath/Special Procedures	Portable/Mobile Work
Computerized Tomography (CT)	Ortho Clinics/ Pain Clinics
Emergency Department	

Optional Observational Rotations Include:

Nuclear Medicine	Radiation Therapy
Ultrasound (USD)	PET Scan
Magnetic Resonance (MRI)	Mammography
Hospital Designated Education Units (DEU's)	

General Plan of Clinical Education

The primary objective of this aspect of education is to enable the student to demonstrate competency in all phases of Radiography through a balanced clinical education. Competency based instruction is believed to be the most effective method to achieve this objective. This type of instruction allows the student to progress in both the cognitive and psychomotor areas at a rate consistent with his/her individual ability and knowledge.

The student's clinical education will proceed as follows:

1. Orientation – Students will orient themselves to the Imaging Department during semester one. During this time, Radiography rooms, equipment, supplies, crash carts, bathrooms, dressing rooms, doctors' offices, administrative offices and all aspects of department operation will be pointed out and discussed with clinical faculty. Policy and procedures, including health and safety of students, staff, and patients are identified and reviewed. Orientation/treasure hunt check sheets are also used to verify that each student acknowledges each specific area. This phase will be utilized for orientation each time a student is assigned a new clinical education setting.

2. Observation – Students will become oriented and familiar with the examinations and department operations daily. During this period the student will rotate through the fluoroscopic rooms, general radiographic rooms, and portable

examinations. The student will continue to become acquainted with the policies and procedures of the Imaging Department and the hospital. The student will participate passively through observing procedures during this time and participating with technologist assistance in patient care at their introductory level of competence.

3 Positioning with Direct Supervision – Successful completion of the didactic instruction and testing with accompanying lab practices allows advancement to the next phase. After successfully passing the lab proficiency examinations in a specified category, the student may perform any examination in that category under a radiographer's direct supervision. Pediatric, portable, and surgical radiographic examinations **must always** be completed under direct supervision of a registered technologist, as specified in the SFSOR supervision policies.

4. Positioning with Indirect Supervision - This phase of clinical education will begin as the student has successfully passed the competency requirement in a specific category. (See Competency Instruction) At this time, the student will be able to perform the procedures in that category with indirect supervision. Students must still verify patient status and specific patient identifiers with technologist. Students are not allowed to independently end the exam status on Electronic Medical Record or release the patient without the express permission of the supervising technologist for that examination of the patient.

Supervision Requirements

Direct Supervision

Direct 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 and abilities,
- Is physically present during the conduct of the procedure, and
- Reviews and approves the procedure and/or image.

The SFSOR policy: Students must always be directly supervised in all pediatric, portable and surgery cases.

Additionally, students will also be in direct supervision until competency is achieved. Students will also be in direction supervision for any repeated images performed on their patients.

Indirect Supervision

Indirect supervision promotes patient safety and proper educational practices. The JRCERT defines indirect supervision as that supervision provided by a qualified radiographer immediately available to assist students regardless of the level of student achievement.

The SFSOR policy: Students must still verify patient status and specific patient identifiers with technologist. Students are not allowed to independently end the exam status on Electronic Medical Record or release the patient without the express permission of the supervising technologist for that examination of the patient.

Immediately Available is interpreted as the physical presence of a qualified radiographer adjacent to the room or location where a radiographic procedure is being performed. This availability applies to all areas where ionizing radiation equipment is in use on patients.

Qualified Practitioner is defined as "a radiographer possessing American Registry of Radiologic Technologists certification or equivalent and active registration in the pertinent discipline and practicing in the profession."

Competency - The student has completed formal classroom lecture on the procedure, successfully passed a written test, shown proficiency in the laboratory with the Clinical Instructors. The student may now complete this examination in the department with indirect supervision, except pediatric work, portable work, or surgical procedures.

Repeat Radiographs - The presence of a qualified radiographer **during** the repeat of an unsatisfactory image assures patient safety and proper educational practices. A qualified radiographer must be physically present during the conduct

of a repeat image and must approve the student's procedure prior to re-exposure. This is done under Direct Supervision. Repeat radiographs must be recorded on the student daily log.

All unsatisfactory radiographs must be repeated in the presence of a registered technologist. **No exceptions will be tolerated.**

***Note: Students are not permitted to ever independently check an image or dismiss a patient.**

Students are not permitted to ever independently repeat a radiographic image.

Students are not permitted to hold an image receptor plate during any radiographic exposure.

Students are not permitted to hold or restrain patients during any radiographic exposure.

Competency Instruction The student must achieve two levels of competency during clinical education. First, cognitive abilities will be demonstrated through testing material presented in the lectures and the lab demonstrations. Second, the radiographic routines introduced in the lectures and lab setting will also determine competency at this level. After this is achieved, the student will be allowed to work on these competencies in the clinical setting under supervision (defined below).

Lab Setting - There are Radiographic Procedures positioning lectures throughout the entire program. Lectures in the procedure courses will consist of audiovisual presentations with commentary and demonstrations in the simulation lab. The student can practice the positions introduced in the unit during lab time and at the clinical setting with the Clinical Instructor. A lab grade will be averaged with the corresponding clinical class grade and will be based on proficiency in executing the positions introduced in the class. Concurrently, participation in the clinical areas will move from a passive mode to a more active mode of assisting the technologist with the examinations the student has learned.

1. Lab Competency Evaluations - Following the **successful (80%)** classroom testing in the procedures and lab practice of positioning in a given category, the student must pass with a **90% or better** without assistance, lab competency evaluations in each projection. The competency grade achieved will be recorded and kept in the student's permanent file. Failure to successfully complete this requirement will result in failure of the lab portion of the unit and the student will be given remedial work and an assignment scheduled for retesting in the lab setting. The original lab competency grade stands for grading purposes (but pass of 90% is still necessary to complete the lab requirements; although it is not included in the averaging of the final grade for that section.) The student who does not place an anatomical positioning marker (R or L) or does not place a gonadal shield on the "patient" will be given an automatic failure for that projection. In a category such as upper extremities, each anatomical section must be successfully "comp-ed" out before the student will attain completion.

- Example: Wrist AP, Lateral, and Oblique projections are needed to achieve competency for a routine wrist series.
- If one projection is failed, the student must do a homework assignment and then retest competency in that projection only.
- For each session, the student is only allowed 3 unsuccessful attempts to pass for each category before testing out can be resumed.
- Original grade of the three projections totaled together represents the student's final grade.
- The student may continue testing competency in all other upper extremities but will not be considered competent until all projections of the general anatomical area have been completed.
- Successful completion allows the student to test their competency in a given examination.

All lab work must be completed by predetermined dates scheduled by the clinical instructor. Absence from scheduled lab testing will result in completing testing at the end of scheduled lab testing period for the clinical group. Upon demonstrating competency in the lab, the student will be allowed to perform those examinations in that category in the clinical setting under the direct supervision of a technologist. Specific radiographic examinations in chest, abdominal and spinal work will need to have specified numbers of successful pre-competency radiography examinations determined by the Clinical Instructor before they can be graded for a final numeric calculation. No student should

attempt any radiographic procedures in the clinical setting unless they have been successfully tested on them in the classroom and lab, then only under the direct supervision of a technologist.

2. Clinical Setting In order to complete the requirements for clinical competency, the student must successfully perform examinations unassisted from each category in the clinical setting. In specific semesters, students must achieve a predetermined number of pre-competency checks to assess ability before testing competency for a grade. Testing for competency in the clinical setting may occur at any time after the student has passed the laboratory competency tests but must be complete by the end of the semester. Competency testing must progress in a logical order from first to last categories covered in the classroom/lab setting. Semester One competencies must be completed under the Direct Supervision of the Clinical Instructor only. The following semesters' competency examinations may be completed under the "direct supervision" of a staff radiographer, Clinical Preceptor, or Clinical Instructor. Clinical Preceptors or staff radiographers will then have an additional sheet to fill out attesting to the student's performance (markers used, shielding placed, correct patient identifiers used, radiation safety principles followed, etc.) but, will not make the determination of any grading. Check clinical class syllabus for required competencies. Students not completing competencies by the end of the clinical class will not receive passing or complete clinical grades unless specific arrangements are made with the Director regarding a Leave of Absence.

Upon demonstrating competency in the clinical setting, the student may perform examinations in that category in the clinical setting with limited supervision. If at any time, a student consistently appears "not-competent" with an exam(s), then the student will return to the direct supervision status and demonstrate competency in that given area again. The student must demonstrate competency in the clinical setting in all categories by the conclusion of his/her program to graduate. Additionally, the student will "re-comp" examinations to reconfirm competency in specific radiographic competencies. All ARRT Competency Requirements are published on the ARRT website (see attachment at the end of the catalog).

Pertaining to lab and clinical competency testing, it is important to note: A 2.5-minute time limit per projection will be enforced. The timing will begin with the initial positioning of the patient. A time exceeding 2.5 minutes will result in the student requiring remedial work. Passing clinical competency grades will be included in the student's clinical grade. The student must pass with a **90% or better** without assistance.

The Foglia Family Foundation Clinical Simulation Lab- the Foglia Family Foundation simulation lab is designed to enhance the clinical education experience and is considered an integral component of the Clinical Education courses, the Radiographic Procedures courses, and the Quality Assurance course. The lab is comprised of multiple radiographic equipment pieces to allow the students to acquire radiographic images and process them accordingly. This is an energized lab in which students can position radiographic phantoms in a variety of radiographic procedures. The Sim Lab will be used for reviewing and practicing specific radiographic procedural concepts or gaining understanding of the necessary testing tools for the Quality Assurance course. Students may utilize the Sim Lab with the specific course instructor during the scheduled class time. The students will be asked to be respectful of the learning environments and other scheduled courses that are taking place there. The specific policies of the Sim Lab and Radiation Safety will be reviewed and enforced.

Each assigned simulation lab is designed to allow students to meet the clinical objectives of their current clinical semester. Specific objectives will be assigned to each Sim Lab practicum and the objectives will be met at the end of the simulation. Simulations will be held at Resurrection University on the fourth floor or at another designated site as determined per the criterion needed to be accomplished. The simulations will take place during scheduled clinical time. Attendance to these simulations is mandatory. If a student is absent from the simulation, the time must be rescheduled with the Clinical Support Specialist. If a simulation day is missed, there will be homework assigned to the student through the online learning platform. At the end of the semester, there will be one make-up day available for those missed clinical simulations. If the homework assignment and make-up day are not completed, the student's final grade will be subjected to a 3% grade reduction (per grading policy) of the overall clinical grade.

Student Responsibility - All examinations that the student wishes to be competency graded on will need to be submitted to the Clinical Instructor **within one week** of that given examination. Failure to do so will result in a “non-graded” examination. Students will also record participation in their radiography exams on the Clinical Log Sheets. The purpose of these log sheets is to facilitate review of the student work by the Clinical Instructor. These sheets are not to be used for grading a radiograph that the student completed prior to the one-week limitation.

In performing fluoroscopic cases, when overhead radiographs are not ordered, the student must satisfactorily perform two complete cases of the same type exam for compliance of the testing competency requirement. The grade given will be pass or fail only. To satisfy the original requirement, the student **must show** proficiency of the required missing incomplete exams by graduation.

Semester Evaluations

Mid-Semester Evaluations Mid-semester evaluation with the Clinical Instructor allows both faculty and student to assess the student’s progress mid- point of the semester:

Check sheets need to be completed by the student at this point:

Orientation, Treasure hunt, Portable, Patient Identification, General Rooms

Review of competencies completed

Self-evaluations will be completed by the student and reviewed - semesters 2,3,4,5

Personal Goals will be reviewed- semesters 2,3,4,5

Online learning assignments and discussions (including critical thinking and journal entries)

End of Semester Evaluations End of each semester evaluation with the Clinical Instructor allows both faculty and student to assess the student’s progress throughout the semester:

All check sheets must be completed

All required competencies must be completed

All components of the online learning and simulation lab must be completed

Personal goals should be achieved

Clinical Instructor evaluations (including Sim Lab review) and feedback from technologists will be reviewed

Review of attendance throughout the semester

Magnetic Resonance Imaging (MRI) is a noninvasive medical test, using a powerful **magnetic** field, radio frequency pulses and a computer to produce detailed pictures of organs, soft tissues, bone and virtually all other internal body structures. Various implants and devices have been deemed unsafe in the magnetic resonance environment. Students with these implants or devices in their bodies are contraindicated for the MRI clinical setting. It is imperative that all students are properly screened and educated prior to any clinical experience which involves the MRI clinical environment.

MRI Safety - In order to maintain a controlled safe environment for students of the Saint Francis School of Radiography, it is required that each student complete a MRI Scan Questionnaire. Completion of the forms and review by the Clinical Coordinator and Clinical Support Specialist of the Program and if necessary, a lead MR Technologist from the clinical affiliates to determine if the student to participate in the clinical setting safely. The forms will be placed in the student’s clinical folder. No student will be allowed to participate in any MRI clinical experience without completion of the form and the prior education component. Each clinical setting has the right to ask the student for an additional questionnaire to be filled out prior to the MRI clinical experience.

Clinical Education Online Learning Component Students will be required to complete an online learning component in tandem with their clinical education. There will be bi-weekly discussions and assignments based on current and past learning experiences. This component is worth 20 % of the clinical grade. Some of these assignments include research assignments, personal goals, critical thinking and problem-solving questions and scenarios, personal learning experiences, image critique, and quizzes. The purpose of this component is to allow the student to process and expand the learning received in the clinical education setting.

Image Markers Each student will be given a lead radiographic right and left identification marker, which must be used on each image taken. The student will be provided with a permanent marker set with their initials during the first semester. If markers are lost, contact the Clinical Coordinator and additional markers will be provided at the student's expense. Every radiograph taken by a technologist or student must contain an identification marker. It is a legal radiographic image requirement.

- Should a marker be lost, the student is responsible for replacing that marker **within 2 weeks**.
- If the marker is not replaced, the student's clinical grade will be reduced by 3%.
- **Disposable markers are not an acceptable replacement for long-term use.**

Computer Access Protocols for Clinical Setting

Each clinical site requires its employees to use an individual sign-on when using the computer. Once signed on, each task the computer undertakes is tracked. This means that each person is responsible for what they do when signed onto the system. Each student will be given their own sign-on for the Hospital Information System (HIS) and the Radiology Information System (RIS) while in clinical education setting. Access to each setting will be given by the Clinical Coordinator and the IT department of that specific hospital location/system. It is expected that the computer will be used for clinical purposes only such as eValue (student record tracking), PACS, or Electronic Medical Records (EMR). Students should NOT perform any computer task under another individual's log-in.

- This is a serious issue and could result in disciplinary actions if not adhered to.

To maintain compliance with HIPAA guidelines, all images reviewed and assessed by the Saint Francis School of Radiography/Resurrection University students and faculty, must be directly related to current course material. There will be no un-authorized printing or copying or removal of radiographic images that contain any patient identifying information. All images must be printed (burned to a CD) without patient demographics and must be reviewed by SFSOR faculty. The faculty may review and utilize images for evaluation, instruction, testing, and/or grading purposes. All images reproduced by program faculty MUST have patient demographics removed.

Students are not allowed to use clinical education computers for any social media or Internet usage. Checking University email is allowed only after permission has been obtained by a Clinical Instructor.

HIPAA violations will be reported to the Compliance Officer at the clinical site and institutional disciplinary rules will be applied. The Resurrection University Director of Student Development will be notified of the code of conduct issue and will investigate the violation. Resurrection University disciplinary actions up to and including dismissal will apply once the investigation is complete.

Academic Policies and Procedures

Grading Policies

Saint Francis School of Radiography offers a full-time, approximately 21-month program in Radiography. There are five semesters composed of classroom and clinical courses. All courses in the curriculum are required. Failure of a course will not allow a student to progress until the course can be successfully repeated. Progression of the curriculum will not continue as courses have prerequisites. Only 1 additional attempt per course will be allowed for a total of 2 attempts. If

the course is failed in the second attempt, the student will be dismissed from the program and will not be considered for readmission to the Radiography program.

The following **grade scale** is used in all courses:

Grading Scale

	<u>Grade Definition</u>	<u>SFSOR Scale</u>	<u>Grade Points</u>
A	Excellent	100-94	4
B	Good	93-87	3
C	Average	86-80	2
D	Poor, Not Passing	79-75	1
F	Failure	Below 75	0
AU	Audit		0
I	Incomplete		0
W	Withdrawal		0

Classroom Grading

Course Grades are calculated using the following percentages:

- Tests are 85% of final grade (see specific course syllabus)
- Quizzes and homework are 15% of final grade (see specific course syllabus)
- Any grade achieved below an 80% will not be rounded up.
- Any grade below an 80% on a test will generate an Academic Development Referral Notice (ADRN) and required meetings with the **Program Director** and the **Peer Tutor**.

Classroom Attendance Grading Policy

Absences of more than one per course will result in a reduction of the overall course grade.
50% or more of missed class session will result in an absence.

1 st absence	No deduction
2 nd absence	3% reduction in final grade
3 rd absence	6% reduction in final grade
4 th absence	9% reduction in final grade
5 th absence	12% reduction in final grade

Example:

- Final course grade 88.5. Student has a B in the course, but student has 2 absences.
- $88.5 \times .03 = 2.65$
- $88.5 - 2.65 = 85.85$
- Rounded up to an 86.
- Student now has a C as a final grade in the course.

Course work and Absences

Each faculty member will determine the way make-up examinations/assignments/quizzes will be handled in his/her course.

- Repeat examination/quiz times will be determined by the instructor.
- All test/quizzes/assignments/missed course work must be completed as assigned by instructor.

The following will apply:

Planned for absence	Request to take test/quiz early	No deduction in test/ quiz grade
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Absence of class	Test/Quiz taken or turned later in the class day than scheduled class time	3% reduction in test/ quiz grade
Absence of day	Test/Quiz taken or turned in by the next scheduled class day	6% reduction in test/ quiz grade
	If Test/Quiz is not taken or turned in by the 2 nd scheduled class day	12% reduction in test/ quiz grade
	If Test/Quiz is not taken or turned in by the 3 rd scheduled class day	Test/ quiz grade will result on 0 points .

Example:

- Student is absent on the day of an exam.
- Student receives an 88.5 on the exam which is a B
- $88.5 \times .06 = 5.31$ (for taking the exam after the exam date)
- $88.5 - 5.31 = 83.19$
- Rounded down to an 83.
- Student now has a C on the exam.

Course work completion

Assignments are due at the beginning of a class unless otherwise specified by the instructor.

In extenuating circumstances, to be approved by the Program Director, a student may be granted an “Incomplete” in a course.

- An incomplete grade is awarded when the student needs additional time to complete a course.
- The course work must be completed **within the first 7 weeks** of the following semester.
- If additional time is needed, the student must submit a request for an extension in writing to the Program Director.
- In instances of extended illness/leave of absence, the Program Director will decide on a course of action.

If the assignment is not turned in at the appropriate time, the following progression will be used to grade:

Assignment turned later in the class day than scheduled class time	3% reduction in assignment grade
Assignment taken or turned in by the next scheduled class day	6% reduction in assignment grade
Assignment is not turned in by the 2 nd scheduled class day	12% reduction in assignment grade
Assignment is not turned in by the 3 rd scheduled class day	Assignment grade will result in a 0

Class Tardiness

Students must be on time to all didactic courses. It is necessary to be in attendance when the class begins. A pattern of lateness will generate an Academic Development Referral Notice (ADRN) and required meetings with the Program Director and Academic Advisor. Progressive discipline will be applied once a pattern has been established.

Cheating

Radiography is a part of the medical profession. As such, it demands a high level of integrity in all aspects of the profession. Students that are found to be cheating in any aspect of their education are demonstrating the lack of necessary integrity, morals and ethics necessary to the profession.

- Suspected cheating will result in an investigation by the Resurrection University Director of Student Development.

- If it is determined that the student is cheating, disciplinary measures up to and including dismissal from the program and Resurrection University will occur.

Clinical Grading of the following courses:

- IMT 316
- IMT 326
- IMT 336
- IMT 416
- IMT 426

Clinical Attendance Policy

- Maximum of ONE day of clinical absence allowed each semester.
- Students may use their one day in a total seven-hour block (one full day) or ½ day increments (3.5 hours).
- Any ancillary rotation time may **not** be taken off. The trauma/modality rotations time can be switched prior to scheduling, but the rotation must be completed prior to semester end. It is policy to discourage day of attendance absences on these specific rotation / shifts, due to the valuable time spent learning within a limited timeframe. Any time missed in trauma/modality rotations will need to be rescheduled.
- It is critical for the student to understand that all time taken off should be used with discretion.
- It is not necessary to use the allotted one day off each semester.
- Clinical time may be banked from 1 semester to the next.

Unexcused clinical absences may result from:

1. Switching days off without approval of the clinical instructor.
2. Absence of the clinical assignment without notification -prior to the start of clinical assignment
3. Absence from the scheduled clinical assignment throughout the clinical day without notifying the Clinical Instructor, if unavailable, the designated Clinical Preceptor.

Absences of more than one per clinical course will result in a reduction of the overall course grade as follows

1 st absence	No deduction
2 nd absence	3% reduction in final grade
3 rd absence	6% reduction in final grade
4 th absence	9% reduction in final grade
5 th absence	12% reduction in final grade

Notification of Clinical Absence

- Notification must be given **no later than 15 minutes before the beginning of the assigned shift**.
Example of an unexcused absence: If the student’s expected arrival is 8am and he/she calls at 8:20am to report that they will be absent, then this will count as an unexcused absence and must be made up before the end of the semester.
This does **NOT** come out of the clinical bank of allotted time off.
- Notification must be given to the Clinical Instructor or Clinical Preceptor (if one is assigned that day).
- The form of communication used may be email or phone call to the specific Clinical Instructor where the student is assigned. **Text** messaging is **not** considered an **acceptable method of notification** once the clinical day has started.
- Special circumstances where a Clinical Instructor is absent will result in informing the Clinical Preceptor, as well.
- Failure to comply will result in an unexcused absence.

Monthly Schedules

The clinical obligations of the student are assigned by the school faculty as they draft a monthly schedule. It is written using the master clinical schedules and then the weekend assignments, school holidays and days off are posted as they apply. Schedules are designed not to exceed 40 hours per week (including classroom hours). If a day-off request is made during non-**PTO** eligible rotations, the student must work with the Clinical Instructor to reschedule the necessary components. Students are not allowed to assign their own clinical scheduling.

Attendance Time Documentation

eValue is the program's electronic clinical record system.

- This will always be used to verify both the beginning and completion of each clinical day of attendance at designated computer stations.
- Failure to log in or out will result in assumed absences.
- A Clinical Instructor must verify time if there is an electronic error that occurred.
- Failure to log-in or out three separate times will result in the student owing one additional hour of clinical time.
- Each subsequent occurrence will keep incurring an additional one hour of time owed.
- Falsifying documentation is grounds for dismissal. Students are not allowed to falsely alter their own time tracker or document time for other students. Logging in from one's personal mobile device is also grounds for dismissal.
- IP computer addresses will verify students appropriate clock in and out times and locations.

The Clinical Instructors verify attendance weekly. If a student has a question regarding his/her attendance, they may meet with their clinical instructor for clarification. If there is a discrepancy between the two parties, the clinical coordinator will aid in resolving the issue.

Clinical Grading Components:

The student's clinical grade will be composed of the following:

- | | |
|--|-----|
| 1. Clinical Instructor Evaluation | 40% |
| Simulation Lab component is 10% of the 40% | |
| 2. Lab Competency Evaluations | 20% |
| 3. Patient Competency Testing | 20% |
| 4. Online Learning Component | 20% |

A description of each component follows:

1. Clinical Instructor Evaluation (40% of each clinical course grade)

3 components

- A. Clinical Evaluation** - Each student will be evaluated by their Clinical Instructor twice within a semester at both the midpoint and end of a course.
- The midpoint evaluation allows the students the opportunity to receive feedback for improvement in any deficient area within the clinical setting.
 - This evaluation counts for 40% of the clinical grade (10% of that portion reflects the Simulation Lab component.)
 - Self- evaluations will be used at mid-point of the semester to determine how the student perceives their progress.
 - The final evaluation will include feedback and improvements that were made within the second half of the semester.
 - At the end of each semester, the clinical instructors ask technologists in the department for feedback regarding student performance.
 - A semester counseling session will then be scheduled with the student to discuss his/her strengths, opportunities for improvement, and progress in the clinical setting.
 - The grade reflects areas such listed on the student clinical evaluation form.
 - At this time the student will also have an opportunity to discuss any concerns he/she may have.
 - The student must successfully pass all sections of the clinical requirements to receive a passing grade.

B. Habitual Tardiness/ Late Occurrences Reflected in Clinical Instructor Evaluation

Students with a habitual tardiness will be counseled and the following will apply for each clinical semester:

- **Each** late occurrence will reflect a reduction in key areas of the student evaluation
- **1-4 lates** - will reflect a deduction in key areas listed below
- **5 lates** - will result in the grade deduction below
- **6 lates** - receives a 0% in all areas below

With regards to the Semester Clinical Evaluations, the Clinical Instructor's grading will be affected in the areas of **Promptness, Patient Care, Participation, Initiative, and Quantity of Work:**

Late Occurrences	Numeric Grade
0	5 - always
1 - 2	4 - almost always
3 - 4	3 - frequently
5	1 - seldom
6 or more	0%

C. Simulation Lab (10% of the 40% of the CI evaluation)

All students will be required to complete simulated training in the Foglia Family Foundation Simulation Center as part of their clinical education. These days will be scheduled during clinical rotation days. The material covered in the simulations will mirror and supplement what is taught in the didactic courses.

- Students must attend their scheduled simulations or are responsible for rescheduling missed days if possible.
- A missed simulation day that is not made up will result in a 3% overall reduction of the clinical grade.
- Students will need to contact the Sim coordinator and their course Clinical Instructor regarding missed time.

2. Lab Competency Evaluations (20% of each clinical course grade)

Lab competencies are NOT performed on patients.

There are 3 steps to completing a competency evaluation.

The following describes the progression of the lab competency evaluation:

- A. Student must pass the procedures classroom test in a given category with an **80%** or better
- B. Student may then practice that procedure in lab with another student and/or the Clinical Instructor
- C. Student must then pass the lab test (not on a patient) without assistance and pass with a **90%** or better
 - The student will have 3 attempts to pass the lab competency
 - After the first failed attempt, the student will be required to complete a homework assignment
 - The student will then retest that exam
 - After the 3rd unsuccessful attempt, the student will fail the clinical course
 - Student will be out of sequence for the program
 - Student will need to repeat BOTH the procedures course as well as the associated clinical course when it is offered again. (See applicable syllabi for prerequisite course needed)
 - If the course is failed in the second attempt, the student will be dismissed from the program and will not be considered for readmission to the Radiography program.

3. Patient Competency Tests (20% of each clinical course grade)

Steps for completing clinical competencies:

1. Pass classroom test over the procedure
2. Pass lab competency test over the procedure (no patient involvement, no assistance from Clinical Instructor)
3. Pass patient competency over the procedure (on a patient, no assistance from the Clinical Instructor)

Once steps 1 and 2 have been successfully completed, the student may proceed to the patient competency test.

- In each semester, once lab testing is successfully completed, students will be required to perform those examinations on patients.
- The initial competency test will be either performed in the presence of the clinical instructor or designated preceptor.

- Students will be graded on their overall performance of the examination from the initial contact with the patient to the analysis of the images for quality purposes.
- In order to pass this competency test, students should not have any repeated images to perform within the examination.
- Testing for patient competency must be completed by the end of the semester.
- Competency testing must progress in a logical order from first to last categories covered in the classroom/lab setting.
- Upon demonstrating competency in the clinical setting, the student may perform examinations in that category in the clinical setting with limited indirect supervision.
- If at any time, a student consistently appears “not-competent” with a particular exam(s), then the student will return to the direct supervision status and demonstrate competency in that given area again.
- The student must demonstrate competency in the clinical setting in all categories by the conclusion of his/her program to graduate
- The student will “re-comp” examinations to reconfirm capability in their radiographic competency throughout their entire curriculum.
- IMT 416 is the terminal clinical course and occurs in the 5th semester. Additional competencies considered “Terminal Competencies” as well as 6 “Program Proficiencies” must be achieved in addition to patient competencies.

4. Online Learning Component Tests (20% of each clinical course grade)

Students will be assigned an online learning component through the learning management system (LMS).

- They will be required to complete all assignments, discussion boards, image critique, and quizzes assigned in the time frame required.
- Failure to complete clinical online coursework will result in a 0 based on the assignment rubric.

Clinical Course Completion

In extenuating circumstances, to be approved by the Program Director, a student may be granted an “Incomplete” in a clinical course.

- An “Incomplete” may be awarded in the clinical class settings if the student fails to complete the required competencies/rotation requirements due to extenuating circumstances approved by the Program Director.
- An incomplete grade is awarded when the student needs additional time to complete the clinical course.
- The incomplete time length will be determined by the Clinical Coordinator, not to exceed **7 weeks** of the following semester in length.
- If additional time is needed, the student must submit a request for an extension in writing to the Program Director.
- In instances of extended illness/leave of absence, the Program Director will decide on a course of action.

Attendance Policy

Holidays and Academic Attendance Resurrection University has posted the Academic Calendar on the University website. It details information regarding attendance for semester courses including start and end dates and listing specific days when the University is closed. Students are **not** allowed to complete make-up clinical time on those scheduled University closure days.

University Breaks There is a break scheduled between each semester. A detailed school calendar may be found on the Resurrection University website. Students have the personal responsibility to be familiar with the calendar.

Excused Absences

It is the personal responsibility of the student to be familiar with the attendance policies of the Radiography program outlined in the student handbook.

Attendance is an essential component of the preparation for this occupation for the student to understand the different aspects of the profession. Absences or tardiness results in the student being unable to assume responsibility for the patient in the clinical setting. Though attendance can impact the student's grade if abused, students are discouraged from attending the educational setting when ill, (as this increases exposure to unnecessary illness to their weakened immune system, their classmates, and technologists as well as their patients). Health and wellness of the caregiver are an essential component of the health care team.

The following steps must be followed to obtain an excused absence:

1. Absence **emailed** to Course Professor **prior** to absence
2. **Or one of the following:**
 - a. Doctor's verification provided upon return to class
 - Student **will be** expected to make up missed excused absences due to illness
 - This will not result in a grade reduction (if time is made up)
 - Excessive time off will require a University Leave of Absence- prior to absences
 - b. Documentation of funeral leave (see below for specifics)
 - c. Documentation of jury duty summons
 - d. Documentation of Military duty requirement

Funeral leave

Family funeral leave will not be deducted from the personal time off allowable day.

- **Five** days of excused absence is granted in case of death in the immediate family (parent, spouse, sibling, or child.)
- **Three** days granted for grandparents and in-laws.
- **Two** days for aunts and uncles.
- **One** day for extended family.
- Other funeral requests will be considered on a per case basis by the Director.
- DOCUMENTATION IS REQUIRED FOR ALL FUNERAL LEAVE.

Jury Duty or Military Duty Must be arranged with Director as soon as the student is aware of the necessary leave. Program requirements must still be met upon return.

Removal from Program Curriculum Sequence

The following are grounds for removal from course progression:

1. **Personal or Medical Leave**
2. **Academic Failure**
3. **Code of Conduct Violation**
4. **Military leave**

1. Personal/Medical Leave and Return to Course Sequence

If a student needs to leave a program it will be necessary, that the student proves knowledge in both didactic and clinical areas of education to successfully pass the ARRT exam and practice competent entry level radiography.

Students who must take a personal/medical leave will have specific requirements to re-enter the program to include:

- In-person meeting with the Program Director
- If medical leave, documentation from attending physician that the student can perform all the radiography program technical standards upon return.
- The student will complete all aspects of requested medical (documentation) per University policy.
- The will be required to prove proficiency of material previously taught in the curriculum. Specific timeframes of accomplishment will be assigned based on length of absence from curriculum sequence.
- The student must be in good academic standing to qualify for return from medical leave.

- A student granted a leave must complete all clinical and classroom requirements of the program within one year of the original graduation date or be subject to dismissal from the program
- The student will work with the Clinical Coordinator to make sure that all aspects of the Clinical component that were missed will be reassigned and completed
- The student will be given an Incomplete per University policy, until the requirements have been completed. This could result in a delay of completing all graduation requirements.
- If the leave is for one semester or longer, the student must prove competency in all classroom and clinical components previously completed.
- If a student is unable to prove competency, they will not be allowed to re-enter the program or reapply.

2. Academic Failure

- A grade of “C” or higher is required for all Radiography program requirements.
- Any student that receives less than a “C” in one radiography course must stop the radiography program sequence.
- The student may return to repeat the course the next time it is offered (if a seat is available in the program).
- Clinical courses (IMT 316,326,336, 416 and 426) will also require the associated Procedure courses to be repeated regardless of the grade received in the Procedure course.
- A student receiving a grade of less than a “C” (including a “W”) in any two radiography courses (or 2 unsuccessful attempts in the same course) will be dismissed from the program.
- If a student is not allowed to progress in the curriculum due to poor academic standing in a course and will need to repeat the course, the amount of time that the student is unavailable to begin the next course offering will determine the extent of knowledge needed to continue. For example, a failure in a course that is not offered for 2 semesters will require the student to prove competency in all areas in which they were unable to advance – clinical and didactic courses. Course prerequisites are considered before the student may continue in the program as well.

3. Code of Conduct Violation

- If a student is not allowed to progress in the curriculum due to Code of Conduct violations, the student will be subject to all procedures regarding the University Code of Conduct.
- The Resurrection University Director of Student Development will be notified of the code of conduct issue and will investigate the violation.
- Any student with a conviction record is advised to contact the American Registry of Radiologic Technologist at 651-687-0048 or www.arrt.org regarding his/her ability to take the registry upon completion of the program.

4. Military Leave

A student may return to the program sequence after a military leave with the following criteria:

- The student must be in good academic standing
- The student must meet with the Program Director and Clinical Coordinator to determine a plan for re-entry to meet and complete the program requirements.
- The student will be required to prove proficiency of material previously taught in the curriculum. Specific timeframes of accomplishment will be assigned based on length of absence from curriculum sequence.

Technical Standards Requirement

To perform as a Radiographer, the student must have the physical and cognitive capabilities to meet the standards listed below, with or without accommodations.

The student must be able to:

- visually inspect radiographs to evaluate quality and patient positioning.
- communicate with patients, family, and staff (verbally and audibly).
- participate in didactic classes using verbal and written English formats.
- stand/walk up to 8 hours per day providing patient care and diagnostic testing in the clinical setting.
- use computer and Radiographic room control panels.
- climb on step stool to position patients.
- lift and carry patients when assisting in transfers from wheelchairs, carts, and beds.
- carry cassettes and supplies up to 15 pounds.
- wear full length lead aprons up to 5 pounds.
- reach and stoop to maneuver equipment and patients.
- position patients and operate equipment (stationary and mobile) simultaneously by using bilateral gross and fine motor dexterity.
- document treatment in written form.
- perform proper CPR technique
- can process, synthesize, and retain information

Students with Disabilities must follow the “Students with Disabilities” section in the Resurrection University Handbook for accommodations where appropriate.

Unscheduled University Closure In the event of the school closing due to weather, power outage, etc., students, faculty, and staff who registered for the Resurrection University alert system will receive either a text message or email message alerting them to this closure. Messages will also be posted to the University website. Any missed assignments will be made up the following meeting with the instructor.

Appearance /Dress Code

The dress code of the program reflects the fact that as a health care institution, professionalism in behavior and dress is expected, always. Serving a cross-section of the population, it is believed that conservative clothing and neatness are the most acceptable appearance styles to most of the patients and visitors. It is expected that students must be respectful of the environment as hospital guests.

University Classroom attire:

- **A student identification badge must be worn at the collar level**, with the name visible to others, always on the premises of any educational facility. No other pins, buttons, stickers, badges, etc., may be affixed to the badge itself or to the badge clip.
- Daily attention to hair, nails, oral hygiene, and bathing is expected. All clothing should be appropriate for the student’s environment. Professional attire and modesty are expected relative to length, style, fit, and transparency of clothing.
- Inappropriate attire includes, but is not limited to, halter tops, blouses with deep cleavage, and shirts that reveal the belly button.
- If at any time apparel is worn that might be considered/perceived as an indication of gang affiliation, Security will be contacted. Such apparel is forbidden in Resurrection University. Instructors and the Program Director are responsible for the appearance of students in their areas; therefore, they have the authority to set expectations for any additional dress code rules, consistent with any applicable administrative or facility policies.

Clinical attire:

Uniforms:

- Are always required while in the clinical setting, including scheduled simulation lab classes.
- The student must wear the program specific uniform.

- The color of the uniform is **Bahama Blue**.
- The student may also wear a plain white turtleneck or fitted t-shirt underneath the uniform top. Any other visible shirt is unacceptable. T-shirt sleeves may not hang lower than scrub sleeves.
- The student may also wear either a long white uniform lab coat or a Bahama Blue uniform warm up jacket.
- While performing clinical education in the Surgical Suite, Interventional Radiology or Cardiac Cath, a **full-length white lab coat is required at some locations**.
- While working in the Radiology Department, the jacket may be removed. **Scrub tops and warm up jackets MUST be embroidered with the School of Radiography in white lettering. Lab coats must have contrasting blue lettering and university patch.**
- Two uniform sets are suggested.
- Students may never arrive to or leave clinical settings in **hospital-issued** scrubs.
- Professional shoes are recommended although athletic shoes are acceptable providing they are not high top. All shoes must be **white leather** without colored trim or laces (90% white).
- Clogs, "Croc", and shoes with ventilation holes larger than a pencil point are **not acceptable**.
- All students need a full-length white lab coat.
- Students must always wear RESU ID badges and OSL badges in the clinical setting. OSL badges must be removed when leaving premises. If, in the clinical setting, a student is found in noncompliance with not having their OSLs or ID Badge, the student will be sent home immediately. Time missed must be made up.
- In the event of a lost OSL or RESU ID, the student is responsible for a replacement fee.

At all times:

- Students not in dress code compliance will be sent home to correct the issue in question and the time missed must be made up.
- Hair should be neat and clean. In clinical setting, hair must be pulled up off the collar. Extreme hairstyles or hair ornaments are not acceptable. Hair, beards, and mustaches should be neat and reasonably trimmed or clean-shaven.
- Jewelry must be kept to a minimum. Large hoop earrings are not allowed. Body adornments including tattoos and facial piercing, excluding earrings must be covered or removed. Excessive adornments are prohibited. Artificial nails are prohibited due to infection prevention measures. Nails must be conservative in length and need to be neatly manicured.
- Daily hygiene must include clean body, hair and clothes. Deodorant use is encouraged. Clothing must be clean, ironed and in good condition. Excessive perfume/cologne and cosmetics are not permitted.

Failure to wear accepted uniform would result in the following:

- An ADRN will be issued and student sent home to change.
 - Clinical -Time missed must be made up.

Clinical Competencies per semester

Students are required to demonstrate competency on certain exams during five semesters to pass the class and move on to the next semester. Those who do not pass the clinical semester do not start the next until all assignments are completed (Incomplete Policy.) The standard school grading policy is in affect for all competency exams, except the terminal competencies, which are pass/fail. At the beginning of the semester the students are issued a clinical "folder" and Electronic Learning (D2L Brightspace) assignments. These include the syllabus which contains all the information that is needed to pass that semester as well as the clinical competency forms and check sheets. The student is responsible for completing all assignments during their clinical class and submitting a completed "folder" to faculty prior to the semester end to have clinical grades calculated. Students must have completed all assignments prior to end of the semester scheduled conference with Clinical Instructor.

Students must complete the Clinical Education Requirements of:

Semester One

Check sheets:

- General Radiography
- Fluoroscopy
- Orientation sheets
- Portable radiography

Competencies:

- CXR – PA & Lateral
- CXR – cart/wheelchair
- Portable – Chest & ABD
- ABD – PA & AP
- Any additional chest or abdomen projection

Clinical Education 1

Clinical Education Online Component 1

Simulation component

Semester Two

Check sheets:

- General Radiography
- Fluoroscopy
- Orientation check sheets
- Portable radiography
- Surgical 1

Competencies:

- Contrast studies
- Upper extremities
- Geriatric Chest

Clinical Education 2

Image presentation of chest and abdomen studies

Clinical Education Online Component 2

Simulation Component

Critical thinking and journal entries

Personal Goals- Set and Achieved

Semester 3

Check sheets:

- General Radiography
- Fluoroscopy
- Orientation check sheets
- Portable radiography
- Surgical 2
- Evening Trauma
- CT and case study – CT exam requirements

Competencies:

- Lower extremities
- Any extremity elective exams
- Lower extremity trauma – (completed by end of Semester 4)
- Upper extremity trauma – (completed by end of Semester 4)
- 1 Portable orthopedic exam (pass/fail)
- CT brain, chest, and abdomen/pelvis (pass/fail)
- Pediatric chest or extremity (both completed by the end of Semester 4)

- Vertebral competencies (based on Procedures course)
- Geriatric extremities

Clinical Education

Personal Goals- Set and Achieved

Image presentation of chest, abdomen, contrast, and upper and lower extremities

Clinical Education Online Component 3

Simulation Component

Critical thinking and journal entries

Semester 4

Check sheets:

- General Radiography
- Fluoroscopy
- Orientation check sheets
- Portable radiography
- Surgical 3
- Evening Trauma
- Weekend Trauma
- Interventional radiography (and case study)
- Optional rotation

Competencies:

- Completion of Vertebral competencies
- Bony Thorax
- Pediatric chest and extremity (both completed by the end of Semester 4)
- Surgical bone competency (pass/fail)
- Trauma upper and lower extremity
- Additional extremity competencies (not completed previously)
- Skull competencies (based on Procedures course)

Clinical Education

Personal Goals- Set and Achieved

Clinical Education Online Component 4

Simulation Component

Critical thinking and journal entries

Semester 5

Check sheets:

- General Radiography
- Fluoroscopy
- Orientation check sheets
- Portable
- Surgical 4
- Optional rotation

Competencies:

- Complete Cranial competencies
- Complete all extremity work
- Surgical non-orthopedic c-arm case
- Terminal competencies (re-competency – pass/fail)
- **Complete any exam competency to meet graduation requirements**

Clinical Education

Personal Goals- Set and Achieved

Standards of Behavior

The student is expected to conduct him/herself in a professional manner always. In the clinical setting, the student should be actively engaged practicing compassionate, respectful care to all. Foul, abusive, or inappropriate language will not be tolerated at any time. Students are not allowed to speak any language other than English in any patient care setting, where patients are present, unless as an interpreter with permission given by patient.

Students should be actively engaged in their learning experience. It is important to ask questions in a respectful manner and asking for advice whenever needed. They are not to leave their assigned area at any time without notifying their Clinical Instructor/ Preceptor. When not actively engaged in radiographic work or other duties, students will remain in their assigned areas and not congregate in offices, halls, or other rooms, disturbing the patient care areas. They should maintain a cooperative and positive attitude without voicing unnecessary complaints or criticisms in front of the patients. Students should **NEVER** experiment with patients. **They should never repeat** a radiograph unless under the direct supervision of a registered technologist.

Students must respect the affairs of the University, the clinical settings and the patients' confidentially, and are not to discuss these matters with other students, family or friends. Confidentiality must be maintained always complying with HIPAA laws. Therefore, it is the policy of the Radiography program that cell phones are completely prohibited on the clinical floor. Cell phones have the potential to jeopardize patient security as well as distract the student from the clinical setting. This policy will be enforced throughout the program and in hospital patient care areas.

In the classroom setting, students will remain courteous to the professor and other classmates. Students are expected to conduct themselves in a professional and respectful manner with classmates and professors while engaging in all classroom activities and discussions. All students are encouraged to participate in classroom discussion and communicate their viewpoints and ideas if these relate to the topic or assignment being discussed. Disruptive to the learning process are students who sleep in class, read non-class materials, use a cell phone and/ or work on an assignment for another course during class time. This behavior interrupts the learning environment for all involved and compromises the learning process.

The Code of Conduct can be found in its entirety on the University Website in the Academic Catalog. Failure to comply with the Code of Conduct could result in Disciplinary Action (per University policy).

Any student with a conviction record is advised to contact the American Registry of Radiologic Technologist at 651-687-0048 or www.arrt.org in regard to his/her ability to take the registry upon completion of the program.

Student Health Requirements

Communicable Disease/Infection Control If a student is suspected or diagnosed as having a communicable disease or has been exposed to a communicable disease, the student should notify the Program Officials. The student must then obtain a written note verifying their good health standing to return to school or school functions. This note must be from their consulted healthcare provider. Examples of communicable disease include but are not limited to: chicken pox, influenza, conjunctivitis, strep throat, and lice. Infection control manuals containing policies and procedures, regarding the infection control program, the employee and student health, isolation procedures, and standard precautions are in the Departments of Radiology or at specific clinical education websites. Annual education is required to maintain compliance and students are also taught infection control practices in the Patient Care curriculum.

Compliance of Health and Safety Requirements

Before beginning the Introduction to Radiography course, students will be required to complete the electronic assignment for all the New Hire Orientation learning modules that all staff, students and volunteers must complete at members of the Resurrection University community. Once the students have agreed to comply with the policies and have completed the training, they will be allowed to participate in the Clinical Education setting at all Resurrection University clinical education settings. There will be additional orientations required at some clinical settings. Students will be required to complete each of the modules to familiarize themselves with corporate policies and procedures. Completion of additional yearly training will be needed to remain in compliance. Some specific reviews are: Active Shooter: What You Can Do, Emergency Codes, Emergency Preparedness, Fire Safety, Hazard Communication, Infection Control, Chest Pain Basic Training, Stroke Basic Training, HIPAA, Preventing Harassment in the Workplace.

Required Student Health and Safety Records

Castle Branch

All students must upload a Student Health and Safety Record that has been signed by a health care provider, as well as proof of health insurance, satisfactory completion of Occupational Safety and Health Administration (OSHA) instruction requirements, and Health Insurance Portability and Accountability Act of 1996 (HIPAA) instruction requirements, into their personal health information records account. Our current system is Castle Branch.

Prior to students starting their clinical assigned rotation, students are required to submit proof of:

- TB test
- immunization for tetanus/diphtheria,
- immunization for annual seasonal flu
- immunization and titers for measles, mumps, rubella, varicella and hepatitis B by the required deadlines
- Physical exam
- Health insurance
- Qualitative mask fit test
- CPR certification

Thereafter, to enroll in any course with a clinical component, the student must maintain current records for all health requirements, including:

- annual PPD skin testing
- immunization for annual seasonal flu
- CPR certification
- continuous health insurance
- OSHA instruction
- Other hospital requirements.

IT IS THE STUDENT'S RESPONSIBILITY TO MAINTAIN THEIR RECORDS WITHIN CASTLE BRANCH!

Some clinical settings require additional health testing before a student may be educated there. Failure to maintain current records will result in immediate withdrawal from clinical. There are some clinical education settings that require additional updated (30-90 days prior to attendance at that site) health requirements.

Expenses related to health records are the responsibility of the student. Failure to comply with the required health and safety documents will result in suspension from class and clinical/professional practice or residency experiences. Class and clinical/residency time missed because of noncompliance is considered absence and thus jeopardizes successful completion of a course. A late fee will also be imposed for late submissions.

Health Insurance

Students must carry their own personal health insurance. All students are required to have and maintain health insurance while they are enrolled at the University. **Documentation of health insurance coverage must be provided annually and uploaded to Castle Branch.** Student Services can aid with health insurance options.

Professional Liability Insurance

Students are insured for professional liability by the Resurrection University Insurance Program only while participating in clinical, practicum, or residency experiences as part of their University courses. Students are also insured during participation in any other University-sponsored events requiring a clinical experience.

Student Responsibility for Ongoing Compliance

Students are responsible for tracking and completing these requirements prior to enrollment and prior to any documentation expiration. Please keep copies of these documents for your own records. Students are also responsible for checking the Castle Branch Medical Document Manager for their due dates. Failure to comply with this requirement will result in suspension from clinical and/or class until documentation is received. Class and clinical time missed because of noncompliance is considered an absence, and thus, may jeopardize successful completion of the course. The Clinical Coordinator will track ongoing compliance.

Injuries Sustained During a Clinical Experience

A student who sustains an injury, e.g., a needle stick, while participating in class or clinical experiences should notify the course Clinical Instructor immediately. As soon as possible, an injury report must be completed and filed with the Program Director with a copy to the Resurrection University Director of Student Development. A student who sustains an injury while participating in a clinical/internship experience should follow the protocol of the affiliating institution. The initial visit following the injury must be done at the institution where the incident occurred or the closest location. As soon as possible following the initial visit, an appointment should be made to see the student's personal physician. All expenses associated with the injury are the student's responsibility. Follow-up treatment, regardless of where the incident occurred, will be the fiscal responsibility of the student.

Medical Restriction

Students who have been medically restricted from performing tasks, must submit a written statement from their primary care provider (Physician or Nurse Practitioner) verifying the medical restriction to the Program Director. It will be placed in the student's file. If it is determined by the Program Director and Clinical Coordinator that the student will not be able to safely fulfill clinical /classroom requirements, a leave of absence from the course and/or clinical will be required. Once the restriction is ended, the primary care provider must document in the Technical Standards Requirement form (housed in the Clinical Coordinator's office) that the student may return to class and clinical and this must be submitted to the Program Director and Clinical Coordinator. Medical restrictions are different from ADA issues. Medical restrictions are put in place with the intent that the student's health will improve. ADA issues are permanent.

Workplace Hazards

Resurrection University Clinical Education Settings strive to provide a risk-free environment to its patients, employees, students, and visitors with regards to hazardous materials. Each Imaging Department has procedural manuals, Infection Control manuals, and access to all policies which cover the proper procedures required to provide the safest possible environments. The student has the authority and responsibility to work safely, to report unsafe conditions or equipment to his/her clinical instructor, and to know the safety procedures such as fire and disaster for each assigned clinical site as required. Orientation Treasure Hunt forms for each clinical site are completed to confirm the student is aware of the proper protocols for workplace hazards and safety requirements and location of key items for a Radiology Department. Additionally, students will be instructed in the Patient Care and Introduction to Radiography courses regarding these matters.

Harassment Policies

Anti-Harassment, Anti-Bullying, Anti-Hazing and Discrimination

Resurrection University prohibits any form of unlawful harassment, bullying, and hazing, and will not tolerate discrimination against any employee or student by anyone, including co-workers, supervisors, students,

patients/residents, vendors, visitors, contractors or any other third party. Resurrection University's policies are in alignment with the Mission, Vision and Values and the Catholic Ministry. There are very definite definitions as to what constitutes this harassing conduct that will not be tolerated and are listed in the RESU Academic Catalog. If there are any complaints to be filed regarding Title IX violations, the student may email ResUTitleIX@res.edu.

Travel

To Clinical Sites

Students are required to travel to all clinical sites within the Chicago land area.

- Students must be able to travel within a 60-mile radius of Resurrection University
- Students must have a valid driver's license and/or provide their own form of transportation.
- School schedules will not be modified to accommodate individual transportation needs.
- Current clinical sites include (but not limited to) Presence Saint Francis Hospital, Presence Saint Joseph Hospital, Presence Resurrection Medical Center, Presence Saints Mary of Nazareth and Elizabeth Medical Centers, Community First Medical Center, Weiss Memorial Hospital, Advocate Lutheran General Hospital, and Shriners Hospital for Children-Chicago.

The Clinical Coordinator has the right to make changes in this list of sites without notice in advance, but notification will occur when possible.

To School Related Activities

Opportunities are available for students to travel to educational and/or other activities during the school year. These are OPTIONAL activities and students may elect to attend and travel to them at their own expense. As these activities are not mandatory, students have the option to attend the regularly scheduled clinical day or the student would choose to complete written assignments (if it were to fall on a classroom attendance day).

Additional Policies and Procedures

Complaint Policy

See Resurrection University Appeal/Grievance Policy for specific instructions.

Students have the right to address a complaint that is disruptive to their learning environment whether in the classroom or in the clinical setting. Students need to communicate their issues in writing to the attention of the appropriate personnel (whether Clinical or Classroom Faculty.) The Faculty member will notify the Program Director of the said complaint. The Program Director will document and investigate the grievance. Records will be maintained to assist the Program in providing a learning environment that is conducive to the student's learning. It will be the responsibility of the program officials to address issues of re-occurrence.

Student Rights Under FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. Students must formally petition to examine their record. No student may examine another student's file. Access to student information and transcript acquisition are dictated by the University policy in compliance with FERPA (Family Educational Rights and Privacy Act 1974). The policy is found in its entirety in the University Catalog on the website.

Student Communications

- **Email** - Students will be assigned a RESU email address. There are computers available for the students to check their RESU email daily- whether clinical or classroom educational settings (if there is not a computer at home to check.) Faculty will not be responsible for information disseminated via email and then not read by the student.

- **RESU Alert System** - Resurrection University will alert the student of an unforeseen school closure. The student will be notified when the school has been closed due to weather conditions or other situations. The student will need to supply contact information to receive the information and keep information updated.
- **Personal phone calls**- are **NOT** to be made or received in the Radiology Departments nor in the classroom, except in cases of an emergency. All student emergency calls can be directed to the Clinical Coordinator's office or the Program Director's office. **Cell phones may NOT be used during class or clinical time. This includes texting, checking of emails, or using the Internet on phones during these periods. The exception to this classroom rule would be for use of media for specific professor led sessions. Otherwise it is ONLY permissible during scheduled classroom or clinical breaks.**
- Electronic devices such as laptops, notepads, iPads or cell phones may be used for recording of class lectures **only**. This policy strictly follows the RESU policy regarding responsible use of these items.

Program Completion

Graduation Requirements

To graduate, the student must meet the following requirements:

1. File the Intent to Graduate Form by the designated deadline.
2. Have official final transcripts of any previous colleges attended on file in the Registrar's Office.
3. Complete the credit hours designated in the curriculum as relevant to the individual's program.
4. Complete the residency requirements.
5. Attain a minimum cumulative grade point average of 2.0.
6. Complete the preparatory certification requirements.
7. Complete payment of all fees and tuition owed to the University and return all library items.

Transfer Credits

The SFSOR Radiography Program does not accept students attempting to transfer from another radiography program or seeking advanced placement in this program. Students desiring to attend this program must proceed through the normal application process and begin at the same program level as other students. Radiography programs vary in how the sequence of curriculum is delivered and therefore the SFSOR program may not necessarily be an exact match as content previously delivered.

Campus Life

Location

The campus of Resurrection University is at St. Elizabeth Hospital, 1431 N. Claremont Chicago, Illinois.

Student Services

The goal of Student Services is to provide students with an exceptional ResU experience. The student services staff provides the services, programs, and experiences that will support students' success at the University. From tutoring and counseling to extracurricular, co-curricular activities, or library resources, Student Services wants to ensure that students' academic and personal development needs are met.

Library and Computer Labs

Both the Library and the Computer Labs are available to assist the student in their educational process. Specifics regarding each of these are found on the ResU Website and in the Academic Catalog.

SFSOR Academic Advising

Academic: The Radiography Program Faculty are the academic advisors of the program and are assigned at the beginning of each cohort. Counseling will always be confidential and conducted in a positive and constructive fashion. Regular evaluation sessions are scheduled to cover student's strengths, opportunities for growth, and progress in the program. The Academic Center of Excellence (ACE) center houses additional academic counselor/tutor resources for the student success.

Wellness: Wellness Counseling is offered on both campuses for those students seeking additional support from the Counselors.

Parking

Specific parking policies apply as appropriate for each facility that the student attends. It is the student responsibility to follow the specific policies. The student will be issued a parking sticker for the main campus parking facility.

Campus Safety and Security

Hospital security personnel are present at every hospital. Security can be quickly notified in case of emergency. Details regarding how to contact security at the clinical facility will be reviewed at the orientation to the facility by the Clinical Instructor and/ or other personnel.

FACULTY/STAFF DIRECTORY

PROGRAM DIRECTOR

Mary Ellen Newton, MSM, R.T. (R) (M)

773- 235-5583 office

847-804-0548 cell

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ASSOCIATE PROGRAM DIRECTOR

Eric Fugate, MSHA R.T. (R)

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ASSISTANT PROGRAM DIRECTOR / CLINICAL COORDINATOR

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CLINICAL SUPPORT SPECIALIST

Jodi Faulk, B.S. R.T. (R)

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CLINICAL INSTRUCTORS / ACADEMIC FACULTY:

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Margaret Lupo, A.A.S. R.T. (R)

Pager 312-272-1082

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Katie Flaherty Ward, R.T. (R)

773-564-5177

Pager 773-564-6011 pager 3188

kflahert@weisshospital.com

Additional Clinical Instructor information will be provided.

CLINICAL PRECEPTORS

Clinical preceptors have always been appointed at each clinical setting to ensure quality education. The Clinical Instructors will work with the preceptors to maintain a positive and encouraging environment based upon the Saint Francis School of Radiography Technologist Guide to Student Clinical Policies. All preceptors and staff technologists acknowledge, through their signature, that they agree to adhere to the policies published therein.

These individuals are committed to providing a professional atmosphere that will enhance the educational experience for student learning outcomes. Additionally, the technologists, radiologists, residents, and other staff members at each clinical education setting will provide learning opportunities for our students.



Student Name:

Academic Development/Referral Notice Form

Academic Advisor:

Course:

The College is committed to every student's successful completion of all academic and clinical courses. At this time, your performance in this course requires additional attention. You are at risk of performance below a C (80% or below) at the baccalaureate level or you are at risk for being unsuccessful in the clinical setting.

Area of concern: Please check all that apply:

- Academic Performance
- Personal Concerns (Stress/Anxiety)
- Class/Clinical/Residency Absenteeism
- Test Taking Strategies
- Professionalism
- Other (Please Describe)

To facilitate your success, I am recommending that you contact the following for additional support:

- Discipline Specific Specialist
- Reading/Writing Specialist
- Math/Science Specialist
- Peer Tutor

Additional Comments:

Upon receipt of this notice, you are required to outline a detailed development plan of action and submit to your instructor via e-College.

In addition it is recommended that you make an appointment with your course instructor to discuss academic performance and strategies for success in the course and program.

Faculty Signature:

Date:

Student's Printed Name:

Student Signature:

Date:

Advisor Signature:

Date:

COPY TO:

Academic Advisor
Director of Student Services
Program Director
Course Instructor



Regulatory Guide 8.13 - Instruction Concerning Prenatal Radiation Exposure

(Draft was issued as DG-8014)

Revision 3

June 1999 [Availability Notice](#)

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 work place."

The Nuclear Regulatory Commission's (NRC's) regulations on radiation protection are specified in [10 CFR Part 20](#), "Standards for Protection Against Radiation"; and [Section 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 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. REGULATORY 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 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.

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.

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 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.

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.

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 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.

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.⁽¹⁾
(Electronically available at <http://www.nrc.gov/reading-rm/doc-collections/reg-guides/>)
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.
10. National Radiological Protection Board, *Advice on Exposure to Ionising 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.⁽²⁾

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).

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.
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.

Specific Information regarding ARRT Didactic and Clinical Competency Requirements are found on the ARRT Website

<https://www.arrt.org/docs/default-source/discipline-documents/radiography/rad-competency-requirements.pdf?sfvrsn=20>

ARRT Code of Ethics

American Registry of Radiologic Technologists

1. The radiologic technologist acts in a professional manner, responds to patient needs, and supports colleagues and associates in providing quality patient care.
2. The radiologic technologist acts to advance the principal objective of the profession to provide services to humanity with full respect for the dignity of mankind.
3. The radiologic technologist delivers patient care and service unrestricted by the concerns of personal attributes or the nature of the disease or illness, and without discrimination on the basis of sex, race, creed, religion, or socio-economic status.
4. The radiologic technologist practices technology founded upon theoretical knowledge and concepts, uses equipment and accessories consistent with the purposes for which they were designed, and employs procedures and techniques appropriately.
5. The radiologic technologist assesses situations; exercises care, discretion, and judgment; assumes responsibility for professional decisions; and acts in the best interest of the patient.
6. The radiologic technologist acts as an agent through observation and communication to obtain pertinent information for the physician to aid in the diagnosis and treatment of the patient and recognizes that interpretation and diagnosis are outside the scope of practice for the profession.
7. The radiologic technologist uses equipment and accessories, employs techniques and procedures, performs services in accordance with an accepted standard of practice, and demonstrates expertise in minimizing radiation exposure to the patient, self, and other members of the healthcare team.
8. The radiologic technologist practices ethical conduct appropriate to the profession and protects the patient's right to quality radiologic technology care.
9. The radiologic technologist respects confidences entrusted in the course of professional practice, respects the patient's right to privacy, and reveals confidential information only as required by law or to protect the welfare of the individual or the community.
10. The radiologic technologist continually strives to improve knowledge and skills by participating in continuing education and professional activities, sharing knowledge with colleagues, and investigating new aspects of professional practice.

***Excerpt taken from the American Registry of Radiologic Technologists at www.asrt.org (2016)

IMPORTANT RADIOGRAPHY ORGANIZATIONS

Joint Review Committee on Education in Radiologic Technology
20 N. Wacker Drive
Suite 2850
Chicago, IL 60606-3182
Telephone: (312) 704-5300
www.jrcert.org

American Registry of Radiologic Technologists
1255 Northland Drive
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Telephone: (651) 687-0048
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American Society of Radiologic Technologists
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Illinois State Society of Radiologic Technologists
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