



*Division of Health Professions*

# PROGRAM POLICY HANDBOOK



## Radiologic Technology

2023- 2024



## **A Message to the Student**

Welcome to the Texas Southmost College Radiologic Technology Program. We are happy to have you as a student in the Health Professions Division.

This handbook has been compiled to help familiarize you with the policies utilized by this program as well as available student services.

It is through the spirit of cooperation and communication that students and faculty members share a common goal of learning. In this profession, competence is developed through diligence, determination and patience in the practice environment as well as in the classroom.

The degree plan for radiology has been designed to provide the student with all well-rounded curriculum that incorporates general radiology as well as preparing the student academically to continue their education.

Please remember that you, the student, are the most important asset of this program. Your suggestions are welcomed, appreciated, and may be submitted at any time to the Advisory Committee of this program or directly to the Program Faculty.

### **Maribel Duran R. R. A., R. T. (R), (CT), MSRS**

*Director, Radiologic Technology Program*

Division of Health Professions

ITEC Center

301 Mexico Blvd. • Brownsville, Texas 78520

(956) 295-3537 • Maribel.duran@tsc.edu

[www.tsc.edu](http://www.tsc.edu)

## TABLE OF CONTENTS

Introduction .....	2
Non-Discrimination Statement .....	3
Mission Statements .....	4
Program Goals.....	5
Benchmarks.....	6
Program Objectives.....	7
Program of Study .....	10
Advisory Committee Representation.....	12
Student Records .....	12
Student Employment Policy .....	12
Behavioral Conduct.....	13
Expenses.....	13
Travel .....	13
Attendance.....	14
Holidays .....	14
Grades .....	15
Transfer Students .....	16
Re-Admission.....	16
Evaluation .....	16
Clinical Assignments .....	11
Dress Code .....	12
Accidents.....	13
Professionalism .....	14
Professional Ethics/Confidentiality .....	15

Liability Insurance .....	15
Grievance Procedure .....	16
Probation Policy .....	16
Ionizing Radiation Exposure Monitoring .....	17
Radiation Monitoring .....	18
Radiation Safety Practices .....	19
Safety Measure Relating to Pregnancy .....	19
Repeat Radiograph Policy.....	19
Quality Control .....	19
Infection Precautions and Reporting.....	24
Management of Hazardous Material.....	26
Student Illness/Infection Control .....	26
CPR and Health Requirements .....	27
Basic MRI Safety (The Magnetic Environment).....	27
Malpractice Insurance .....	28
Meals and Break.....	28
Clinical Counseling.....	28
Bulleting Boards .....	28
Student Affairs .....	29
Due Process.....	30
Technical Standards .....	31
Ethics of the Medical Team .....	33
Legal Responsibility of the Radiologic Technologist .....	33
Graduation.....	34
Registry/State Certification.....	35

Professional Organizations .....	36
Criminal Background Checks, Drug Test, & Immunizations.....	36

# Introduction

The Texas Southmost College radiologic technology program is a two-year full-time program that allows for optimum development of the student as an academically competent skilled radiographer. A graduate of this program is awarded an Associate of Applied Science degree and becomes eligible to take the American Registry (A.R.R.T.) examination for radiologic technologists.

The training program is accredited by the Commission on Colleges of the Southern Association of Colleges to award an A.A.S. degree in Radiologic Technology. This program at Texas Southmost College is conducted in cooperation with Valley Baptist Medical Center at Brownsville, Valley Regional Medical Center Brownsville, Valley Baptist Medical Center at Harlingen, Harlingen Medical Center, Knapp Medical Center in Weslaco, Rio Grande Regional Hospital in McAllen, and Doctors Hospital at Renaissance in Brownsville. These institutions are equipped with modern equipment and are capable of performing all types of radiologic examinations.

The philosophy of the Texas Southmost college radiologic technology program is based on the premise that every individual has the potential for growth and development to be a contributing member of society. With that growth and development come rights and responsibilities.

The role of the radiologic technologist is one of providing a service, whether directly to the patient or indirectly through the assistance provided to a radiologist. This service can be best performed when the radiographer possesses the necessary interpersonal, academic and scientific skills required of the task. The program strives to encourage the individual to establish and attain educational and personal goals by offering appropriate curricula and support services. The program design enables students to learn the skills required for direct patient contact, as well as the production of diagnostic radiographs and familiarization with hospital administrative processes.

# Non-Discrimination Statement

Texas Southmost College (TSC) Radiologic Technology Program is non-discriminatory in regard to race, creed, color, sex, age, handicap, and national origin.

Texas Southmost College (TSC) Radiologic Technology Program further delineates Section 504 of the Rehabilitation Act of 1973, as amended:

No otherwise qualified handicapped individual in the United States as defined in Section 7(6), shall, solely by reason of his handicap be excluded from participation in, be denied benefits of, or be subject to discrimination under any program or activity receiving federal assistance.

# Mission Statements

## Mission of the Institution

Transforming our communities through innovative learning opportunities.

## Mission of the Program

Consistent with the Mission of Texas Southmost College the faculty of the Radiologic Technology Program are committed to serving the educational needs of the citizens of this area. This mission will be fulfilled by providing quality instruction, preparing the graduate to be successful on the National Certification Examination, preparing the graduate with employable skills as an entry level radiographer, and providing the opportunity to participate in higher education such as the emerging advanced modalities.



## Program Goals

1. The program will graduate a student with knowledge and technical skills necessary for the position of an entry level technologist. Upon completion of the program, all students will demonstrate the ability to comprehend, apply and evaluate information relevant to their role as a Radiologic Technologist.
2. The program will enroll qualified applicants who upon graduation will be successful on the National Certification Examination (A.R.R.T.).
3. The program will provide training to meet the changing needs of the industry by preparing students in a two-year Radiologic Technology Program leading directly to gainful employment. Upon completion of the program, all students will demonstrate personal behaviors consistent with professional and employer expectations for a Radiologic Technologist.
4. Upon completion of the program all students will be able to communicate effectively, think analytically and be intellectually adaptive in a healthcare setting.
5. The program will provide the opportunity for students to participate in continuing education.

## Benchmarks

It is the goal of the program to have 65% of the students entering the program graduate within 36 months.

It is the goal of the program to have 75% of the program graduates employed within six months of graduation.

It is the goal of the program to have minimum of 85% of the graduates be successful on the National Certification exam.

It is the goal of the program that upon graduation 90% of employers and graduates are satisfied with their entry-level skills in radiography.

The pass rate for clinical competency and performance evaluations will be 95% on first attempt and 100% on final attempt.

# Program Objectives

It is the objective of the program to graduate radiographers who have the required skills to be competent entry level radiographers.

- A. To introduce the common radiographic projections utilized in radiography for successful progression through the radiologic technology program (RADR 1411).
- B. To introduce the basic ethical and technical skills, the basic patient care knowledge and the basic radiation safety required for successful progression through the radiologic technology program (RADR 1309).
- C. To introduce the technical radiographic skills required for successful progression through the radiologic technology program (RADR 1213, RADR 2305).
- D. To introduce the x-ray physics knowledge required for successful progression through the radiologic technology program (RADR 2309).
- E. To introduce the techniques of evaluating radiographic image quality and to understand various pathologic conditions of the body required for successful progression through the radiologic technology program (RADR 1411, & RADR 2331).
- F. To introduce the more advanced radiographic procedures. Included here are the examinations performed less frequently. For successful progression through the radiologic technology program (RADR 2331).
- G. To introduce the biological hazards associated with radiation and the protective measures to safeguard the patient and technologist (RADR 1309, RADR 2313).
- H. To reinforce and expound on concepts, theories and facts previously introduced in earlier courses (RADR 2335).

- I. To introduce the student the use of computers in medical imaging and to survey specialized imaging modalities. (RADR 2233)

- J. To provide the student with the knowledge of the structure and function of the human body cells, tissues and bones (BIOL 2301, 2101, 2302, & 2102).
- K. To introduce the knowledge to express ideas clearly, correctly, and logically in written and/or spoken English (ENGL 1301).
- L. To introduce the knowledge to utilize basic algebraic and statistical manipulations (Math 1314).
- M. To improve one-to-one communication and small group interaction. (SPCH 1315 or SPCH 1318).
- N. To understand how major philosophies influence human thought and behavior (PSYC 2301).

# Program of Study

## RADIOLOGIC TECHNOLOGY

### PREREQUISITES Credit Hours

BIOL 2301 Human Anatomy & Physiology I.....	3
BIOL 2101 Human Anatomy & Physiology Lab I.....	1
BIOL 2302 Human Anatomy & Physiology II.....	3
BIOL 2102 Human Anatomy & Physiology Lab II.....	1

### FIRST YEAR: SPRING SEMESTER

ENGL 1301 Composition I (†).....	3
MATH 1314 College Algebra (†).....	3
RADR 1411 Basic Radiographic Procedures.....	4
RADR 1213 Principles of Radiography Imaging.....	2
RADR 1309 Introduction to Radiography.....	3

### FIRST YEAR: SUMMER SESSION I

RADR 1166 Practicum I.....	1
----------------------------	---

### FIRST YEAR: SUMMER SESSION II

RADR 1167 Practicum II.....	1
-----------------------------	---

### YEAR: FALL SEMESTER

RADR 2309 Radiographic Imaging Equipment.....	3
RADR 2305 Principles Radiographic Imaging II.....	3
SPCH 1315 Public Speaking <i>or</i> SPCH 1318 Interpersonal Communication.....	3
RADR 1267 Practicum III.....	2

### SECOND YEAR: SPRING SEMESTER

RADR 2266 Practicum IV.....	2
PSYC 2301 General Psychology.....	3
RADR 2331 Advanced Radiographic Procedures.....	3
RADR 2313 Radiation Biology and Protection.....	3

### SECOND YEAR: SUMMER SESSION I

RADR 2166 Practicum V.....	1
XXXXX3XX Language, Philosophy & Culture/Creative Arts Elective.....	3

### SECOND YEAR: SUMMER SESSION II

RADR 2167 Practicum VI.....	1
-----------------------------	---

### SECOND YEAR: FALL SEMESTER

RADR 2335 Radiologic Technology Seminar.....	3
RADR 2233 Advanced Medical Imaging.....	2
RADR 2367 Practicum VII.....	3

## TOTAL CREDIT HOURS FOR GRADUATION – 60

### 23 – General Education Courses 37- Rad. Tech Courses

TSI Requirement (Texas Success Initiative - any other State-approved test) - Student must pass all three sections of State-approved test to graduate with this degree.

Students who are admitted to an Allied Health program must make continuous satisfactory progress toward completion of their degree plan. Continuous satisfactory progress means a minimum grade of "C" must be obtained in each course required in the degree plan.

† Grade of "C" or better is required for graduation.

Students who are admitted to an Allied Health program must make continuous satisfactory progress toward completion of their degree plan.

Continuous satisfactory progress means a minimum grade of "C" must be obtained in each course required in the degree plan.

# Advisory Committee Representation

The Radiologic Technology Program utilizes an advisory committee to help the program devise and evaluate the goals of the program and to represent the various communities of interest that the program serves.

The freshman and sophomore class elect a student representative to represent the student interests on the advisory committee. Each class should elect a representative to attend advisory committee meetings and report back to their constituents.

## Student Records

The program maintains two sets of records on the Radiologic Technology Program student in the program's records office. One is a personal file which contains admission documents, application, and transcripts. Another separate file contains practicum information such as the record of examinations completed, practicum attendance, and other practicum education data. These documents are secured and may be reviewed by making arrangements with the program director.

## Student Employment Policy

Part-time work arrangements are between the student and the employing institution. As a responsible individual, the student will regulate work and study schedules in order to maintain the grade average required for satisfactory completion of the program.

If a student is employed by a Radiology department while enrolled in the program said student will not perform any of the duties of a paid employee during clinical assignments. A student's program assignment will not be altered to satisfy an employer's needs. Students will not be substituted in place of qualified staff. Only the work performed during program scheduled assignments will be credited. Work performed while under employment by any institution will not be used to shorten any of the program's requirements.



# Behavioral Conduct

TSC Radiologic Technology Program students representing Texas Southmost College will be expected to conduct themselves in such a manner as to reflect favorably upon themselves and the program. Every effort is taken to provide for all students an academic environment that is conducive to academic endeavors, social growth, and individual self-discipline. Texas Southmost College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct and that they will observe these rules as a matter of training and habit (See TSC Student Handbook - Discipline Code/Sanctions). Classroom disruptions will not be tolerated. Students who are found disrupting class during normal classroom hours may, at the discretion of the Faculty member involved, be asked to leave the classroom. The use of cell phones during class instruction is considered disruptive. The use of personal laptops during class time, unless relevant to the class, is also considered disruptive.

# Expenses

The student is expected to provide for all expenses incurred while in the Radiologic Technology Program. These include books, uniforms, meals, travel expenses, etc., and any other materials deemed necessary. College tuition is based on an hourly quota this information can be found in the college web-page.

The Financial Aid Office at Texas Southmost College can assist those students who qualify. Students may inquire with that office about the variety of student aid programs available.

# Travel

All students will be expected to participate in clinical rotations among any of the clinical affiliates. All expenses associated with the travel are those of the students. Transportation to and from the clinical areas is the responsibility of the individual.

## Attendance

Radiologic technology students will attend all clinical assignments as scheduled. Appropriate methods will be used to keep an accurate record of the clinical attendance. If unavoidable circumstances result in tardiness or absence, students are required to notify their clinical instructor on the morning of the absence. All tardiness and absenteeism will be made up before the completion of the semester in which they occur, in order for the student to be considered for a passing grade. Each student is allowed two (2) absences during each summer session and three (3) absences during each long semester (Fall & Spring) provided that these absences are made-up. If you accumulate more than the allowed absences in a semester you could be dismissed for this program. Upon the student's return from their absence from the clinic an "Absence Report Form" will be completed by the clinical instructor. The student as well as the clinical instructor must agree on a date/time for the student to make-up the missed assignment.

## Holidays

All students will follow TSC academic calendar. This information can be found on the TSC Webpage.

## Grades

Grades for radiologic technology courses: According to the standards set by the Texas Southmost College Radiologic Technology Advisory Board, students must maintain an average of 75 or above in all RADR courses. A final grade average of "D" or "F" will automatically remove a student from eligibility to continue in the program. A student may reapply to the Program the following year, and if accepted will be given this last opportunity to successfully complete the course in question. In addition, the students will be expected to pass all other required academic courses with a grade "C" or better in order to graduate.

### **Rad. Tech Grade Scale**

A = 92-100

B = 82-91

C = 75-81

D = 65-74

F = 64 and below

## Transfer Students

Provided that program slots are available, a student may apply to transfer to the TSC Rad. Tech. program. The student must have earned at least a "C" or better in all transfer courses from an accredited college radiologic technology program.

The scholastic requirements outlined in the TSC General Catalogue will govern the eligibility of the applicant for admission. The student must submit: (1) transcript from previous school, (2) course description of radiologic technology courses taken (3) competency record from previous school. The program director may choose to contact the school from which the student in question is transferring from in order to clarify any matter in question.

## Re-Admission

Former students may be allowed re-admission on a "space available" basis. Re-admission is predicated on the following items:

- A. Submit a written request to the Radiologic Technology Program, preferably two months in advance of the anticipated date of re-admission.
- B. Provide program with any requested information.
- C. Meet current admission requirements
- D. Fulfill the requirements for graduation that are in effect at the time of re-admission
- E. Students who were dropped for academic or disciplinary reasons must formally petition the Radiologic Technology Program prior to reinstatement. The program director will organize a committee to evaluate and recommend a course of action.

## Evaluation

Examinations will be announced or unannounced to the students. If an exam is missed because of an unexcused absence from class, the student will not be permitted to make it up and will receive a grade of zero (0). Instructors are given the prerogative to determine if it is an acceptable excuse for the absences. Class attendance is the

responsibility of the student. Most tests and examinations are administered online in the classroom using the student's lab-tops. Examinations will be discussed and reviewed with the students after each exam; this will be the only time the exams will be available for student review; Students are not allowed to copy any exam or test. When evaluation (exams) are made available to the student for discussion/review the student should note their errors and after the discussion/review with the instructor to understand their weaknesses, strengths and progress. Student/Instructor will monitor their progress through a course by documenting exam/evaluation grades. After each evaluation a student will be counseled and methods of improving and areas of weakness will be pointed out. Students are encouraged to stay informed as to their course status and request advice from the faculty in methods of improving their understanding of the material covered in order to progress satisfactorily through the program.

It is the students' responsibility to keep up with the evaluation process during each clinical assignment. A student can request a clinical competency evaluation at any time that they perceive that they have mastered the procedure. However, a student may not be clinically evaluated (checked-off) on a procedure until it has been covered in class. Before completion of the program (Graduation) each student must be checked-off on all of the required procedures. Although, students have ample time to complete all the required procedures during the duration of the clinical assignments it is possible that certain procedures will be performed less frequently than others. If this occurs and a student is not able to be checked-off on some procedures, a student can request that they be evaluated by simulating the procedure. Simulation will only be accepted for those exams less frequently performed. Requests for evaluation by simulation will be considered on an individual basis. All such requests must be made to the clinical coordinator. Competency evaluation forms must be dated with the date the student tested on the procedure. Each student is required to maintain a record of all successfully competencies achieved. Each student is responsible for submitting the completed competency evaluation forms as soon as possible, or before the end of the semester to the clinical coordinator.

# Clinical Assignments

Students are expected to rotate through selected clinics affiliated with Texas Southmost College. Students are expected to report fifteen (15) minutes before duty begins and advise the clinical instructor 15 minutes prior to the daily assignment ending. Students may select, space permitting, their clinical rotation. However, if a clinic selected by a student does not provide the procedures or clinical area which a student needs to be checked-off on, the student will be assigned to another clinic. Students are assigned 2 days per week to a clinical site. Clinical hours are twice a week. Furthermore, it is also the policy of this program that students will not be allowed to participate in clinical and academic activities in excess of 40 hour per week. During clinical assignments, students will be responsible for their health care expenses in cases of accidental injury or any other incident which might require medical attention.

# Dress Code

## *FEMALE:*

Scrubs:	Color: Black (top and bottom)
Shoes:	White with rubber sole and white socks (no street shoes)
Hair:	Kept above the collar, clean, conservative, and in good taste
Cosmetics:	To be used moderately; short, well-manicured nails, clear polish
Jewelry:	No costume jewelry is permitted. Traditional rings and watches permitted.
ID:	Name tag and dosimeter to be worn at all times *

## *MALE:*

Scrubs:	Color: Black (top and bottom)
Shoes:	White with rubber sole and white socks (no street shoes)
Hair:	Neat, clean, cut short. Cut conservatively. Mustaches/Beards should be well-trimmed.
ID:	Name tag and dosimeter to be worn at all times *

## Note:

Students have the option to wear a solid white undershirt under their scrub tops. Undershirts may be long or short sleeved. Black uniform jackets are allowed and must also have monogram on left upper side. Students are not allowed to wear personal jackets or sweaters during clinical hours.

\* Never report on duty without wearing your complete uniform. (School uniform monogram on left upper side of scrub top)

# Accidents

Any accident that occurs while on clinical assignments that results in patient, hospital personnel, or personal injury and/or damage to equipment must be reported immediately to your instructor and the chief technologist of the affected clinic. Students will be required to fully understand the safest methods of performing procedures before being allowed to undertake them.

An incident report must be completed prior to a student's departure from clinic. If the student experiences personal injury while performing in the clinical setting, it is the student's responsibility to inform the instructor or chief technologist of the incident. The instructor will determine the appropriate follow-up action.

TSC provides Medical Malpractice Liability insurance for all students, but does not cover accident or injury at the clinical site. Students injured at clinical sites should be treated according to the policy of the clinical site. Students will be responsible for any charges incurred at facilities. In any situation where the student is being treated for an injury received during a clinical experience, it is important that the treating facility understand that the injury is related to an instructional experience and is not employment related. Per contract, student injuries occurring during clinical experiences are not covered by Worker's Compensation. Students shall be responsible for arranging for the personal medical care and/or treatment, if necessary, including transportation in case of illness or injury while participating in clinical experiences.





# Professionalism

The clinical affiliate reserves the right to refuse admission to any student who they have legitimately determined is involved in any activity not considered professional or conducive to proper patient care. If the clinical affiliate expels a student for unprofessional and/or unethical conduct, the student will receive a grade of "F" for the clinical course. Furthermore, transfer to another affiliate will be denied. Students may appeal any decision. Refer to the college rules for an appeal. While a student is on a clinical assignment, they must comply with all Hospital/Program policies as well as with the following rules:

1. Report to their assignment in the complete, clean school uniform.
2. Maintain all hospital and patient information as confidential in nature.
3. All requests for information from non-hospital personnel must be referred to his clinical instructor.
4. Cellular phones and smart watches are prohibited during clinical assignments. Please provide imaging department telephone number for emergency purposes.
5. Do not smoke at any clinical site. Cigarettes and electronic vapes are prohibited.
6. Do not eat or drink in areas not specifically designated for that purpose.
7. Do not refuse assignments given to them by their clinical instructor commensurate with his abilities.
8. Do not leave his assigned work station without the direct knowledge of their clinical instructor.
9. Do not leave patients unattended at any time.
10. Do not fill in the attendance record of another student
11. Do not allow anyone other than clinical instructor to fill in attendance record.
12. Do not sleep during clinical hours.
13. Do not accept any kind of "tip" or gratuity from a patient or a patient's family.
14. Do not alter work center assignment or duty hours without the knowledge and agreement of their clinical instructor/program director
15. Do not argue with hospital employees at any time. When disagreements arise, contact your clinical instructor after completion of the task or duty.
16. In the absence of your clinical instructor, the chief technologist of your assigned affiliate becomes your immediate supervisor.

# Professional Ethics/Confidentiality

Students must remember at all times that the information in a clinical area is confidential. This means that all patient information including verbal information given by the patient and/or family, patient records and diagnostic testing results are to be used only within the appropriate context of discussion with other members of the healthcare team regarding diagnosis and treatment. Students shall not tell patients, parents, friends, relatives, or non-hospital employees the results of examinations or the nature of any illness. Failure to comply with the above rule will result in a disciplinary action to be decided by the program director, faculty, and clinical instructor. It is vital that the student complies with the Code of Ethics for the Radiologic Technology Professional as developed by the American Society of Radiologic Technologists (ASRT).

# Liability Insurance

All students in the Radiologic Technology Program are required to have professional liability insurance. This insurance is not provided on a group basis and the cost for the professional liability insurance is included in the fees paid during a semester in which a clinical course is required. Each student must obtain personal insurance.

NOTE: TSC provides Medical Malpractice Liability insurance for all students, but does not cover accident or injury at the clinical site.

Students injured at clinical sites should be treated according to the policy of the clinical site.

Students will be responsible for any charges incurred at facilities.

In any situation where the student is being treated for an injury received during a clinical experience, it is important that the treating facility understand that the injury is related to an instructional experience and is not employment related. Per contract, student injuries occurring during clinical experiences are not covered by Worker's Compensation.

Students shall be responsible for arranging for the personal medical care and/or treatment, if necessary, including transportation in case of illness or injury while participating in clinical experiences.

# Grievance Procedure

The intention of the student grievance procedure at TSC is to assure the aggrieved student of due process in the disposition of the grievance or complaint. While the procedure will not guarantee the student that the result will be totally to their satisfaction, the College intends for the procedure to provide sufficient options for resolution of the matter. The procedure for filing a grievance can be found in the official TSC Catalog.

# Probation Policy

Probation periods may be required of the Respiratory Care Program student. Probation is a trial period in which the student must improve or be withdrawn from the program. At the discretion of the Respiratory Care Program Faculty, a student may be placed on probation in the Respiratory Care Program for any of the following reasons:

1. Unsatisfactory performance on (Clinicals, Exams, Quizzes) Score Below a 75%.
2. Unsatisfactory performance in clinical including: attendance and punctuality, completion of clinical contract, and/or behavioral evaluation.
3. Inability to maintain physical and mental health necessary to function in the program.
4. Other performance or behavioral problems as deemed necessary by the Respiratory Care Program Faculty.
5. Insubordination: Students refusing to follow directive by a Clinical Instructor, or affiliate hospital representative, may be asked to leave the clinical setting, receiving a zero on any work performed that day and an absence for the day. Additionally, the student will not be allowed to return to the clinical setting until cleared for return by the Program Director. Clearance will be based on probationary condition.

The time and terms of probation are to be determined by the Allied Health Chairperson and the faculty of the Respiratory Therapy Program.

# Ionizing Radiation Exposure Monitoring

Since the beginning of this century the medical profession has been aware of the beneficial as well as the destructive potential of ionizing radiation. By employing effective methods students can lessen their exposures as well as the exposure to the patients.

A dosimeter is a device used to detect exposure to ionizing radiation. Each student will be issued a dosimeter. While a student is within a radiology department, or on assignment from it, they must wear their dosimeter. When the student leaves the clinical site, the dosimeter must be placed in the designated area within the department. Clinical instructors will change the dosimeter quarterly. Dosimeter reports are kept in the Program Director's office at the College Student's upon graduation from the program will receive a copy of the total dosage received while enrolled in the Radiologic Technology program. A student upon request may review their radiation exposure records. Students are encouraged to periodically review their Radiation exposure records. Incidents of high dosimeter readings will be immediately reported to the concerned student and appropriate action taken. All students will be provided with a copy of their quarterly exposure report.

All technologists as well as students share the responsibility to keep the radiation exposure as low as possible (ALARA) ALARA is an acronym for As Low as Reasonably Achievable. This can be usually achieved through the employment of proper safety procedures and by using an appropriate method to determine exposure factors. This is a regulation for all radiation safety programs.

# Radiation Monitoring

1. The TSC Radiologic Technology program is responsible for providing student radiation monitoring service.
2. Exposure reports are received quarterly and are reviewed by the program director (radiation safety officer) and clinical coordinator. Students will be notified when these reports are received so that they can also review them, and be aware of their exposure record. Students have the right to request copies of their exposure reports at any time.
3. The recommended dose limits (DL) of exposure are 1.25 rem per quarter (1250 mrem per qtr.) and 5 rem per year (5000 millirem/50miliSieverts). Students exceeding these limits will be restricted from working in a radiation area until an investigation is completed. All guidelines of the TRCR will be strictly adhered to.
4. Personal exposure monitors (dosimeters) will be worn by students at the collar and outside of a lead apron during fluoroscopy. Only the individual to whom the dosimeter is issued may wear that particular monitor. No sharing or swapping of dosimeters is permitted.
5. Exposure monitors are exchanged on every three months, Monitors will be submitted to the clinical instructor punctually as scheduled.
6. Exposure monitors must be protected from extreme heat, radiation and moisture. Dosimeters are not to be removed from the facility. The only exception is when you change clinical sites. Should the student happen to wear a dosimeter home, be careful not to leave the dosimeter in the car or wash it in the laundry.
7. Refer to Section XVIII "Program Policy Handbook" for special radiation monitoring arrangements and policies for students who become pregnant.
8. Exposure monitors must be worn at all times while at the clinical education centers and during laboratory periods on campus.
9. If a dosimeter is lost, stolen or accidentally irradiated, the individual must immediately notify the clinical instructor to receive a new dosimeter. All events related to the situation shall be documented.
10. The Radiation Safety Officer (RSO)/ will review and initial the radiation exposure reports on a quarterly basis.
11. Students are encouraged to check their quarterly exposure report
12. Intentional exposure or misuse of personal radiation monitors or falsification of radiation reports and records will be regarded as a health hazard and shall result in immediate dismissal from the program.
13. Students who have accumulated previous occupational radiation exposure

14. are required to provide the TSC Radiologic Technology Program with a copy of their occupational exposure history and records so that the cumulative lifetime limits may be monitored.
15. Each Radiation Exposure report will be filed and retained in the Radiology Department office indefinitely.
16. The TSC Radiologic Technology Program makes its educational exposure records of students available to subsequent employers or schools upon written request by the employee/student.

## Radiation Safety Practices

1. Students are required to follow procedures to keep their exposure as low as reasonable achievable (ALARA) throughout the program. These procedures include minimizing exposure time and the holding of patients, maximizing distance from the source of radiation and the appropriate use of shielding including fixed barriers whenever feasible, lead aprons during fluoroscopic, surgical and mobile procedures, lead gloves, thyroid shields, gonadal shields and other appropriate equipment and practices as taught during the first few weeks of the program. Failure to adhere to these teachings or to use common sense observing basic radiation safety may result in disciplinary action and may affect clinical grades.
2. The Texas Regulations for Control of Radiation (TRCR) manual is always available to students and faculty and is located in the office of the Radiography Program Director, at ITECC office H3A. TRCR Form 203- 1 explains your rights and obligations as a radiation worker. This form is posted in the x-ray lab at TSC and can also be found in this handbook on pages 20 & 21.
3. The certificate of registration with the Texas Bureau of Radiation Control is posted in the main Radiology Program Lab room. All students and faculty are required to comply with the conditions listed thereon at all times.
4. The Radiation Safety Officer (RSO) for TSC is Manuel Gavito. Students are responsible to report to the RSO any radiation safety concerns or questions. Any excessive exposures are to be immediately reported to the RSO, who is then responsible for reporting same to the Texas Bureau of Radiation Control if necessary.
5. Radiation equipment is to be operated only when authorized to do so. Repeat exposures are to be performed only in the presence of properly credentialed personnel. Fluoroscopy is not to be performed except under

- direct supervision by properly credentialed personnel.
6. Never alter, tamper with, nor remove filters, collimators or other parts of radiographic units, which were installed following manufacturer's specifications, except under the direct supervision of program faculty as part of a laboratory exercise on campus which does not involve human exposure.
  7. Students shall not take the responsibility for decisions allowing non-radiation workers within controlled radiation areas. All unnecessary persons must be removed from the radiation room during exposures. Lead aprons are to be provided for all persons assisting with the procedure and for any other patients within 6 feet of the irradiated patient.
  8. Students must always maintain visual and aural contact with a patient undergoing a radiation procedure by remaining within an earshot and watching through the control booth window during exposure.
  9. When positive beam limitation (automatic collimation) is not engaged, students must restrict the area of the x-ray beam to the size of the image receptor or smaller. Use light localizers to center the beam.
  10. For "manual" techniques, technique charts are to be used. Calipers should be used to measure the part to be radiographed. Technique charts are to be updated as needed.
  11. Use mechanical IR holding devices whenever feasible. If a person must be used to hold the IR or the patient they should be over 18, not potentially pregnant, and someone who seldom has held a patient or IR for this purpose.
  12. Reset the 5 minute cumulative timer prior to each fluoroscopy procedure. For mobile fluoroscopy a 30 centimeter spacing device must be in place on the x-ray tube.
  13. College Laboratory safety rules:
    - a. Never stand outside of lead protected booth while exposures are being made.
    - b. Keep doors closed while exposures are being made.
    - c. Always wear your dosimeter when working in college lab.
    - d. Under no circumstances will anyone perform an x-ray examination on another person at the school x-ray laboratory.
    - e. Exposures are never to be made without instructor supervision.
    - f. Not more than two students are to work in the lab when x-ray exposures are being made.
    - g. Follow lab instructions when making any exposure. Always use close collimation, DO NOT point tube towards control booth. Always use the technical factors given.



## Safety Measure Relating to Pregnancy

Any student who is pregnant or suspects that she is pregnant, is advised to notify the program director so that safety precautions may be taken. However, this is strictly voluntary. If a student chooses to notify the program of her pregnancy, it must be in written form. A pregnant student will be assigned a "baby badge" to monitor the monthly radiation exposure to the fetus and corrective measures taken if necessary. The dose limit to the fetus of a radiographer is 50 mrem per month (.05 rem/mo.) (0.5 mSv/mo.) and the gestational exposure to the fetus must not exceed a total of 500 mrem (0.5rem) (5 mSv). The student will wear the "baby badge" throughout the term of pregnancy. For missed work due to conditions brought on by pregnancy, please refer to TSC policy on grade of Incomplete. All student pregnancy cases will be evaluated on an individual basis.

## Repeat Radiograph Policy

No student regardless of their level of competency will repeat a radiograph unless a clinical instructor or registered radiographer is present in the room. This policy applies to all procedures including portable examinations.

1. A written warning for the first offense.
2. Dismissal from the program for the second violation.

There will be NO exception to this ruling. If a qualified radiographer is not available, the student must wait to complete the study until such time as a qualified radiographer will be present.

## Quality Control

1. General
  - a. The faculty of the Radiologic Technology Program are responsible for the monitoring and evaluation of problems of student/patient safety and resolving identified problems.
  - b. X-ray procedures are performed only upon the receipt of a Dr's

- order at clinical sites. In the school lab, students will only use phantoms and only operate equipment when instructor is present.
- c. All images regardless of level of competency must be approved by a qualified technologist.
  - d. Retakes of X-ray images will be ordered only by a physician, clinical instructor or staff technologist.
  - e. Students meet regularly with clinical instructor to discuss image critique or any other concerns.
  - f. Staff tech/clinical instructor reviews all requisitions to verify correct data requested.
  - g. Student must wear a dosimeter at all times during clinical and lab assignments.
  - h. Dosimeters are changed every 3 months and reports are reviewed with students.
  - i. Students will use technique charts.
  - j. Students should not hold patients during exposures. However, if a patient or IR must be held by a student, the individual shall be protected with appropriate shielding devices. This applies to all clinical sites.
  - k. During clinical practicum no individual other than a patient operator and ancillary personnel shall be in the X-ray room while exposures are made.
  - l. During clinical practicums gonad shielding shall be used on patients when the gonads are in or within 5cm of the useful beam.
  - m. During clinical practicums/lab the Source to Skin Distance shall not be less than 38cm on stationary fluoroscopes, 30cm on mobile and portable fluoroscopes and 20cm for C-arms.
  - n. Control of scatter radiation: All persons, except the patient, in the room where fluoroscopy is performed shall wear protective aprons that provide a shielding equivalent of .5mm of lead.

## 2. Radiographic Equipment in College Lab

- a. An X-ray service company checks and matches MA stations to give +/- 10% equal density. Check timers, filters, collimators, etc.
- b. The following Radiographic equipment has diagnostic Q.C. is performed by an X-ray service Company.
  - i. Shimadzu- ( CR FUGI Unit)
  - i. AMRAD ( DDR Unit )

2. The radiation outputs are set within normal limits for radiographic equipment.
3. The half-value layer (HVL) is equal to or exceeds the required limits.
4. Light/Radiation-field coincidence is proper.
5. Proper collimation is evident
6. Environmental shielding, e.g.: rooms, doors, and booths (upon completion of installation).





- F. RC FORM 203-1 Department of State Health Services
- G. (October 2011) P.O. Box 149347
- H. Austin, Texas 78714-9347

# I. NOTICE TO EMPLOYEES

## J. TEXAS REGULATIONS FOR CONTROL OF RADIATION

K. The Department of State Health Services has established standards for your protection against radiation hazards,  
L. in accordance with the Texas Radiation Control Act, Health and Safety Code, Chapter 401.

## M. YOUR EMPLOYER'S RESPONSIBILITY

N. Your employer is required to-

- O. 1. Apply these rules to work involving sources of radiation.
- P. 2. Post or otherwise make available to you a copy of the Department of State Health Services
- Q. rules, licenses, certificates of registration, notices of violations, and operating procedures that
- R. apply to your work, and explain their provisions to you.

## S. YOUR RESPONSIBILITY AS A WORKER

T. You should familiarize yourself with those provisions of the rules and the operating procedures  
U. that apply to your work. You should observe the rules for your own protection and protection of  
V. your co-workers.

## W. WHAT IS COVERED BY THESE RULES

- X. 1. Limits on exposure to sources of radiation in restricted and unrestricted areas;
- V. 2. Measures to be taken after accidental exposure;
- W. 3. Individual monitoring devices, surveys and equipment;
- X. 4. Caution signs, labels, and safety interlock equipment;
- Y. 5. Exposure records and reports;
- Z. 6. Options for workers regarding agency inspections; and
- AA. 7. Related matters.

## BB. REPORTS ON YOUR RADIATION EXPOSURE HISTORY

- CC. 1. The rules require that your employer give you a written report if you receive an exposure in
- DD. excess of any applicable limit as stated in the rules, license, or certificate of registration. The
- EE. basic limits for exposure to employees are stated in 25 Texas Administrative Code (TAC)
- FF. §289.202(f), (k), (l), and (m) (relating to Standards for Protection Against Radiation from
- GG. Radioactive Materials) and 25 TAC §289.231(m) (relating to General Provisions and Standards
- HH. for Protection Against Machine-Produced Radiation). These subsections specify limits on
- II. exposure to radiation and exposure to concentrations of radioactive material in air and water.
- JJ. 2. If you work where individual monitoring devices are provided in accordance with 25 TAC
- KK. §289.202 or §289.231:
- LL. (a) your employer must furnish to you an annual written report of your exposure to radiation if:
- MM. (1) the individual's occupational dose exceeds 100 mrem (1 mSv) total effective dose
- NN. equivalent or 100 mrem (1 mSv) to any individual organ or tissue; or
- OO. (2) the individual requests his or her annual dose report in writing.

- PP. (b) your employer must give you a written report, upon termination of your employment, of your radiation exposures if you request the information on your radiation exposure in writing.
- QQ. radiation exposures if you request the information on your radiation exposure in writing.
- RR. INSPECTIONS
- SS. All licensed or registered activities are subject to inspection by representatives of the Department of State Health Services. In addition, any worker or representative of the workers who believe that there is a violation of the Texas Radiation Control Act, the rules issues thereunder, or the terms of the employer's license or registration with regard to radiological working conditions in which the worker is engaged, may request an inspection by sending a notice of the alleged violation to the Department of State Health Services. The request must state the specific grounds for the notice, and must be signed by the worker or the representative of the workers. During inspections, agency inspectors may confer privately with workers, and any worker may bring to the attention of the inspectors any past or present condition that the individual believes contributed to or caused any violation as described above.
- AAA. contributed to or caused any violation as described above.
- BBB. contributed to or caused any violation as described above.
- CCC. POSTING REQUIREMENT
- DDD. Copies of this notice shall be posted in a sufficient number of places in every establishment where employees are employed in activities licensed or registered, in accordance with 25 TAC §289.252
- EEE. (relating to Licensing of Radioactive Material) and 25 TAC §289.226 (relating to Registration of Radiation Machine Use and Services), to permit employees to observe a copy on the way to or from
- FFF. their place of employment.
- GGG. Applicable sections of 25 TAC Chapter 289 may be reviewed online, at [www.dshs.state.tx.us/radiation/rules.shtml](http://www.dshs.state.tx.us/radiation/rules.shtml). Our license and/or certificate of registration and any associated documents, our
- HHH. operating procedures, and any "Notice of Violation" or order issued by the agency may be reviewed at the following location:

# Infection Precautions and Reporting

- A. Clinical Education Centers are responsible for providing a supply of disposable protective gloves, gowns and masks for students to use during procedures involving blood and body fluid precautions as defined below. Full orientation of each student to infection control policies specific to each clinical education center shall be the responsibility of the clinical instructor.
- B. **HAND WASHING** is required before and after each patient or procedure, and whenever hands may become contaminated with blood or body fluids.
- C. **GLOVES** are required for every procedure you perform. However, it becomes more critical that you wear gloves whenever you are doing one of the following. This includes, but is not limited to :
  - 1. Administering Barium enemas or other lower GI procedure
  - 2. Administering any type of genitourinary procedure (especially cystographic and hystero-graphic procedures.)
  - 3. Whenever the student has abraded hands or active dermatitis
  - 4. Administering any type of injection or IV placement
  - 5. Touching any non-intact skin mucous membranes or mucous membranes, blood or body fluid of ANY patient
  - 6. Whenever handling contaminated materials, such as sheets or gowns after a procedure.
  - 7. However, it is recommended that students wear gloves for every procedure they perform regardless of the infection status of the patient.
- D. **GLOVES, FACIAL MASK AND GOGGLES** are required during invasive procedures that may produce airborne droplets or splashes of body fluids such as angiography, cardiac catheterization and catheterization and emergency trauma. In addition, **GOWNS** are required if soiling is likely (such as in surgery).
- E. Two-handed recapping of needles, breakage or removal of needles from syringes is prohibited. Sharps must be handled with minimal manipulation. **NEVER RECAP A NEEDLE.** Immediately after use, the



unsheathed needle and syringe should be placed in the nearest SHARPS container. Sharps should never be disposed of in common waste receptacles.

- F. Spills must be cleaned up immediately after a procedure, using a disinfectant approved by the clinical center, and contaminated materials properly and immediately disposed of. Always dispose of gloves immediately after use. Do not handle the IR or any other source with contaminated gloves still on, or with unwashed hands.
- G. Students are not allowed in isolation rooms alone, but must be under the direct supervision of a staff radiographer. Students are also not to perform unassisted any procedure on a patient known to be under isolation precautions.
- H. All state and local immunization requirements must be met by the student. Immunization records are part of the physical examination form required for admission into the program for those immunizations which are optional; the student must sign the waiver/release form declining the immunization. It is strongly recommended that the student obtain the Hepatitis B Vaccination. It is required by all hospitals.
- I. It shall be the policy of this program that all body substances from ANY patient will be considered infectious, and therefore appropriate barrier precautions must be taken regardless of whether an individual is known to be infectious or not.
- J. Accidents involving the exposure of students or faculty to bodily fluids during clinical, laboratory or any other aspect of the radiography program, or any infraction of the infection control policies of the program, must be reported immediately to the clinical instructor of the clinic as well as to the Program Director.
- K. Students who have any highly contagious infection may endanger the patient or themselves, and they are therefore strongly advised to consult with faculty regarding precautions they should take or possible temporary re-assignment of clinical duties. Students are responsible for exercising prudent judgment and common sense in protecting themselves and patients.
- L. Failure to abide by these guidelines generally shall result in:

1 <sup>st</sup> occurrence	-	a verbal warning
2 <sup>nd</sup> occurrence	-	a written warning
3 <sup>rd</sup> occurrence	-	dismissal from Program

M. Neglect resulting in a significant and present danger to the patient shall result in:

- |                            |   |                           |
|----------------------------|---|---------------------------|
| 1 <sup>st</sup> occurrence | - | written program probation |
| 2 <sup>nd</sup> occurrence | - | dismissal from program    |

## Management of Hazardous Material

1. **HAZARDOUS MATERIALS that may be** found in affiliate hospitals, however there might be others.
  - a. Alcohol
  - b. Alcohol pads
2. **MATERIAL SAFETY DATA SHEETS (MSDS)** for all items on the Radiologic Technology Program's Hazardous Material can be found at each of the hospitals.
3. **SAFETY PROCEDURES** for the use, handling, and disposal of all listed Hazardous Materials are found on the MSDS.
4. **MSDS TRAINING** is covered in the introductory course to inform students of all hazardous materials found in the Radiology departments.

## Student Illness/Infection Control

The Radiologic Technology curriculum at Texas Southmost College includes patient contact during the student's clinical assignments. It is imperative that all students follow the strict safety precautions at each of the clinical sites. It must be assumed, that all patients are infected and precautions are to be used consistently for all patients. Infection-control precautions designated to prevent exposure to hazardous pathogens must be rigorously adhered to for all patients regardless of their infection status.

In addition to safety procedures addressed in class, students will be required to attend their respective clinical hospital orientation. The clinical instructor will make arrangements for the student to attend orientation during the 1st week of each clinical assignment.

If a physician has deemed that a student's health condition is detrimental to their working, that student will need to obtain a signed statement from said physician

that the student's health has improved to permit him/her to return to program duties. For grading and evaluation policies for missed work, refer to TSC policy for an incomplete grade. Each case of absences due to above condition will be considered on an individual basis. Any student who was or suspects an exposure to a communicable disease should advise their clinical instructor so that the appropriate follow-up action can be determined.

# CPR and Health Requirements

In the Fall semester all first year students must certify, or recertify, in CPR through the American Heart Association. Students must complete the Adult Provider “C” training by the end of the semester as a requirement of RADR1309. Students whose certification expires during their time in the program must recertify in CPR.

Failure to provide proof of CPR certification could result in student not being able to participate in the clinical phase of the program.

All students must be deemed in good health and cleared by a physician. A Physical examination and up-to-date immunization are required before student’s first clinical assignment. This information was provided to all students during the program’s orientation session. TB tests and Flu immunization are required every year.

## Basic MRI Safety (The Magnetic Environment)

### **1. THE MAGNETIC FIELD**

It is important to remember when working around a superconducting magnet that the magnetic field is always on. Under normal working conditions the field is never turned off. Therefore, it is important to be aware of safety issues regarding ferrous projectiles and patients who may have contraindicated devices implanted in their bodies.

### **2. PATIENT PREPARATION BEFORE AN MRI EXAM:**

1. Obtain a complete and accurate history of previous surgeries, allergies, conditions, general complaints, and complaints/symptoms pertinent to the requested MRI study by either questioning the patient and/or reading the chart as provided with in-patients.
2. Prior to scanning, screen all patients for metallic implants, devices, foreign and/or loose metallic objects, according to the procedure established

by the clinical site, prior to scanning.

3. Follow facilities procedure for securing the patients clothes and valuables prior to scanning.

4. Explain the imaging procedure to the patient as well as answer, as clearly as possible, any questions the patient might have that pertains to the imaging procedure.

5. Notify the technologist or physician in charge of any and all potential dangers caused by a patient's condition or history.

## Malpractice Insurance

The student will be required to purchase professional liability insurance before being allowed into the clinical setting. Generally, this insurance is purchased on a semester basis beginning with Summer I registration.

## Meals and Break

A student will be allowed one hour release time for lunch during each clinical day. These periods will be scheduled daily by, and at the discretion of, the clinical instructor. This time period cannot be used to shorten the clinical day.

## Clinical Counseling

The student's clinical instructor may at any time relieve a student of his work assignment for the purpose of counseling. The student may request a counseling period at any time.

## Bulleting Boards

All students are encouraged to review the bulletin boards at the college, as well as their assigned clinical sites, to stay abreast of any changes in policy (i.e. parking, schedule changes, room assignments, job opportunities, etc.). It is the student responsibility to check their college email daily.

## Student Affairs

It is the obligation of all students to conduct themselves in an acceptable manner. If a student encounters a problem at the clinic, the following steps are advised:

- A. Submit written report to the Program Director/Clinical Coordinator.
- B. Request a conference with the clinical instructor/clinical Coordinator, the clinical supervisor, or program director.

If a student needs to contact one of the R.T. Instructors, or Director for any reason please feel free to call (956) 295-3731 between hours of 8:00 am - 5:00 pm Monday thru Friday.

If a student has not been able to resolve his/her concern, the student can follow the grievance procedure stated in this handbook. Refer to the TSC policy for information on Sexual Harassment and Sexual Misconduct Policy also, on the policy referring to Alcohol and Drugs.

# Due Process

## **Non-Academic Grievance**

If any student has a grievance that is related to a/Program policy and is non-academic in character, the student may first discuss the complaint with the person involved. If the matter is not resolved at this level, or the individual involved is unavailable to meet with the student, a written grievance may be submitted to the Program Director within a week of discussion with person involved. A grievance brought to Program Director's attention will be investigated and a written response will be made to the student within one week of receipt of the written complaint. If the grievance is not resolved at this level, the student may file a written request within a week of receiving Program Director's response to make an appointment to meet with the Dean of the Division of Health Professions and a written response will be made to the student within one week. If the grievance is not resolved at this level, the student within a week of Dean's response may file a written request to make an appointment to meet with the Vice President for Instruction. The Vice president will render a final decision within two weeks of meeting with the concerned student.

## Academic Disputes or Challenges

Course grade grievances must be initiated by contacting the instructor with whom the grievance arose within 30 days of receiving the grade in question. An effort to resolve the matter informally should be made. If the student is not satisfied with the instructor's decision, the student may appeal in writing within one week of instructor's decision to the program director. The director will respond to the student within one week of the meeting. If the dispute is not satisfactorily resolved by the program director, the student has one week from date of receiving the director's decision to appeal in writing to the Dean of the Division of Health Professions, Career and Technical Education, who will make the final decision within one week of meeting with the student.

## Technical Standards

The technical standards (non-academic) established by the program are evidence of the "Essential Functions" that must be accomplished by the students in the program. Essential functions do not include requirements that students engage in educational and training activities in such a way that they will not be endangered, nor will they endanger other students, hospital staff, or patients/public. Although the student already informed the program of their technical standard status, if at any time during the program this changes, the student must notify the program director immediately so that appropriate action can be taken.

<b>Standards</b>	<b>Functions</b>
Vision	The student must be able to read charts and graphs, read/adjust instruments, discriminate colors and record data.
Speech and Hearing	The student must be able to communicate effectively and sensitively in order to assess non-verbal communication and be able to adequately transmit information to the patient and to all members of the health care team.
Fine Motor Function	The student must possess all the skills necessary to safely and accurately perform all diagnostic procedures, manipulate tools, instruments, and equipment. The student must be able



to accurately position the IR and the X-Ray tube and provide assistance to the patient when necessary.

**Psychological Stability** The student must possess the emotional health required for full utilization of the applicant's intellectual abilities. The student must be able to recognize emergency situations and take appropriate actions.

## Ethics of the Medical Team

The responsibility of the medical team involves not only cooperation within the team, but also loyalty to the whole medical profession, loyalty to the hospital, and loyalty to the patients. It is in extremely poor taste and ethically wrong, for example, for a technologist to criticize the nurses, the radiologists or the hospital in front of patients or in public. This policy, however, does not imply that the hospital and the team are without error. If technologists have a legitimate complaint, they should work through the radiology department head or chief technologist, quietly, without disrupting the morale of patients and co-workers.

## Legal Responsibility of the Radiologic Technologist

Radiologic technologists have a legal responsibility insofar as their patients are concerned. Ignorance of the law is not considered an excuse; therefore, students and technologists are expected to know something of the laws applying to themselves.

In a hospital dealing with a large number of patients, some occurrence could lead a patient to believe he has not been properly treated, and he will go to the law in an attempt to obtain damages for negligence. It is only human to make an occasional mistake, but it is obvious that a mistake can have serious consequences for a patient who submits himself for treatment, and that the question of responsibility needs very careful examination. In radiologic technology, there are a number of areas where negligence could cause difficulty for patients. Carelessness in the use of ionizing radiation or improperly immobilizing a patient so that a fall may occur are examples that

could be cited. A patient will be entitled to damages only if he can prove negligence. Technologists as well as student techs are professional and may be liable and can be sued for malpractice in the same fashion that a hospital or a physician can be sued. Careful training and testing procedures are the guard that the profession has erected so that problems of this kind can be minimized.

## Graduation

In order to graduate, each student must successfully complete the prescribed curriculum and meet all the requirements of the Department of Radiologic Technology. A minimum grade average of "C" or better is required in all courses. The student will also demonstrate their competency by being able to:

1. Use oral and written medical communication effectively (ENGL 1301, SPCH 1318 or 1315, & all Clinical Courses )
2. Demonstrate knowledge of human structure, function, and pathology (BIOL 2301, 2101, 2302 & 2102. RADR 1411, RADR 2331, , & Clinical Courses);
3. Anticipate and provide basic patient care and comfort (RADR 1309, & All Clinical Courses);
4. Apply principles of body mechanics (All Clinical Courses, RADR 1411, & RADR 1309)
5. Perform basic mathematical functions (MATH 1314);
6. Operate radiographic imaging equipment and accessory devices (Clinical Courses);
7. Position the patient and imaging system to perform radiographic examination and procedures (RADR 1411 RADR 2305, Clinical Courses);
8. Modify standard procedures to accommodate for patient condition and other variables (Clinical Courses, & RADR 1411);
9. Determine exposure factors to obtain diagnostic quality of radiographs with minimum radiation exposure, (RADR 1411, 1213, 2305 & Clinical Courses),
10. Adapt exposure factors for various patient conditions, equipment, accessories and contrast media to maintain appropriate radiographic quality (Clinical Courses, RADR 1213, 2305);
11. Practice radiation protection for the patient, self and others (All Clinical Courses, RADR 1309, 2313);
12. Recognize emergency patient conditions and initiate first aid and

13. basic life-support procedures, O2 administration, and Venipuncture (Clinical Courses, RADR 1309);
14. Evaluate radiographic images for appropriate positioning and image quality (Clinical Courses)
15. Evaluate the performance of radiographic systems, know the safe limits of equipment operation, and report malfunctions to the proper authority (Clinical Courses, RADR 2309);
16. Demonstrate knowledge and skills relating to quality assurance (RADR 2305)
17. Exercise independent judgment and discretion in the technical performance of medical imaging procedures (Clinical Courses);
18. Demonstrate knowledge of scientific attitude toward behavior (PSYC 2301)
19. Demonstrate competency in the following procedures and the ability to critique radiographs corresponding with each of the following procedures; some of the following could be simulated. (Clinical Courses):
  - a) Thumb - to include: AP, Lat. Oblique
  - b) Finger - to include: PA, Lat, Oblique
  - c) Hand - to include: PA, Oblique, Lat
  - d) Wrist - to include: PA, Oblique, Lat
  - e) Scaphoid (Stecher) Ulnar deviation
  - f) Carpal Canal
  - g) Forearm - to include: AP, Lateral
  - h) Elbow - to include: AP, Lat, external & internal obliques Axial view trauma (Coyle)
  - i) Humerus - to include: AP, Lat, AP neutral trauma Scapular Y Trauma, Transthoracic lateral
  - j) Shoulder - to include: AP Internal, External rotation Inferosuperior axial, oblique (Grashey)
  - k) Clavicle - to include: AP & AP Axial
  - l) AC Joints - to include: weight-bearing & without weight
  - m) Scapula - to include: AP & Oblique
  - n) Foot - to include: AP, Oblique, Lateral medial & Lat. medial AP & Lat weight bearing, Sesamoids
  - o) Toes - to include: AP, Oblique, Lateral
  - p) Ankle - to include: AP, Oblique, Lateral, AP Mortice, Stress views,
  - q) Calcaneus - to include: Axial (plantodorsal & dorsoplantar) & Lateral
  - r) Tibia and fibula - to include: AP & Lateral (obliques)
  - s) Knee - to include: AP, Lateral, Obliques AP & lateral weight bearing, tunnel view
  - t) Patella - to include: Lateral, AP, Axial (Settegast, Merchant, Hughston)
  - u) Femur - to include: AP, Lateral

- v) Hip - to include: AP, Frog, Cross-table, Clements-Nakayama
- w) Pelvis - to include: AP
- x) Cervical spine - to include: AP, Lateral, Open-mouth, Obliques, cross-table lat., Swimmers, flexion & Extension , Dens views Fuchs & Judd
- y) Thoracic spine - to include: AP, Lateral Swimmers
- z) Scoliosis Series AP/PA Scoliosis series (Ferguson method)
- aa) Lumbar spine - to include: AP, Lateral, Spot oblique, PA, Anterior & Posterior 45 degree obliques
- bb) Lumbar Flexion and extension views
- cc) Sacrum - to include: AP & Lateral
- dd) Coccyx - to include: AP & Lateral
- ee) S. I. Joints - to include: Anterior/Posterior Obliques
- ff) Chest - to include: PA, Lateral, decubitus, Obliques, AP Supine, & lordotic
- gg) Abdomen to include, AP supine, lateral & dorsal decubitus, and Upright
- hh) Ribs - to include: Frontal & Obliques above & below diaphragm
- ii) Sternum - to include: Lateral & RAO
- jj) Skull - to include: AP/PA, Lateral Towne, Caldwell, SMV
- kk) Facial bones - to include: Waters, Modified Waters, Lateral, Caldwell
- ll) Zygomatic arch - to include: SMV, Waters, Towne
- mm) Nasal bones - to include: Waters Lateral
- nn) Orbits - to include: lateral, Waters
- oo) Paranasal sinuses - to include: Waters, Caldwell, Lat, SMV
- pp) Mandible - to include: axiolateral Oblique, PA
- qq) Mastoids - to include: Stenvers, (simulation)
- rr) T.M.J. - to include: Open & Closed Lateral Law
- ss) Colon - to include: assisting radiologists & routine views
- tt) U.G.I. - to include: assisting radiologist & routine views
- uu) Esophagus - to include: assisting radiologist & routine views
- vv) IVP - to include: AP Scout & routine series, Post-Void,
- ww) Cystography to include AP & obliques
- xx) Cystourethrography (VCU) to include AP voiding
- yy) Surgical Cholangiography - to include: routine views
- zz) ERCP to include assisting and routine views
- aaa) Portable exams chest Abdomen & orthopedic
- bbb) Demonstrate competency in performing mobile Radiographs to include chest, C-spine, extremities... (adult and child)..
- ccc) Demonstrate competency in performing pediatric radiographs. (chest abd. Extremities) including portable exams

- ddd) Demonstrate competency in performing radiographic exams in surgery – C-Arm procedure for orthopedic and non- orthopedic.
- eee) Small Bowel exams (including enteroclysis procedure)

## Registry/State Certification

Before a student is eligible to take the American Registry of Radiologic Technologist Examination, they must have completed and passed all required courses in the curriculum with a minimum grade of "C" or better and demonstrated their competency on the require procedures. A student will also be required to take and pass a comprehensive examination (Exit Exam) before taking the Registry.

Students who have completed all the program requirements will be provided with an A.R.R.T. application. Also, the State of Texas requires individuals who operate ionization (x-ray) equipment to be licensed. State licensure information/applications can be found on- line at the Texas Medical Licensing Board's web site.

### **Note:**

The state of Texas will require an extensive criminal background check prior to them issuing a license. You will have to be fingerprinted and checked by the Texas Department of Public Safety (DPS) and the Federal Bureau of Investigation (FBI) any type of past arrest could jeopardize you getting a state license. Also, offenses that were committed as a juvenile could also jeopardize your chance of obtaining a Texas license.

Also, if you have concerns about ethics eligibility, you can apply to the A.R.R.T. for a pre-application review. You can download pre-application form by going to their web site at [www.arrt.org](http://www.arrt.org). However getting approval from the A.R.R.T. does not guarantee you been eligible to obtain a Texas license.

Students will be provided with this application/information only after they have met all graduation requirements. The program will not verify eligibility for A.R.R.T. certification or state licensure when partial or incomplete work is recorded for any portion of the required academic or clinical work.

## Professional Organizations

There are several professional organizations which are open for student enrollment. The American Society of Radiologic Technologists is a National professional Association and the Texas Society of Radiologic Technologists is a state organization. Both of these organizations are dedicated in serving the educational needs of its members.

## Criminal Background Checks, Drug Test, & Immunizations

The Texas Southmost College Radiologic Technology program requires each student to have a clean background check. Affiliated hospitals require complete criminal background checks (CBC) and drug test of all students prior to clinical rotations. Also, all required immunizations must be up to date before clinical assignments. Annual TB skin testing and Influenza immunization are required before all clinical assignments. Information on required immunizations will be provided during the program's pre-admission orientation meeting.

If you have any concerns on any past criminal occurrences/ arrests, you may want to contact the Radiology Program Director for further clarification.

*This Program Policy Handbook is prepared on the basis of the best information available at the time. The administration and faculty of the Radiologic Technology Program reserve the right to change any information in keeping with the policies of the College.*

**TEXAS SOUTHMOST COLLEGE**

**RADIOLOGIC TECHNOLOGY PROGRAM**

**PROGRAM POLICY HANDBOOK**

This is to certify that the R.T. Program Policy Handbook (2020) has been made available to me\_\_\_\_\_. I have read its contents and officials of the Radiologic Technology Program have provided instruction and discussion of the information so that I understand what my responsibilities are while enrolled in this program. In the event that I fail to meet the policies of this program, my withdrawal will be required. I further understand that it's my responsibility to review this handbook periodically.

\_\_\_\_\_  
STUDENT SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
DATE

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
DATE



**TEXAS SOUTHMOST COLLEGE**

**RADIOLOGIC TECHNOLOGY PROGRAM**

**FIRST SEMESTER FINAL GRADE POLICY**

This is to certify that I \_\_\_\_\_ understand that in keeping with the policies of the Texas Southmost College, Radiologic Technology Program, I will be allowed this semester to prove my academic ability. I further understand that I will not be able to continue in this program if I fail to maintain a final grade of C or better in RADR 1411, RADR 1309 and RADR 1213.

\_\_\_\_\_  
STUDENT SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
DATE

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
DATE