

**UNIVERSITY OF PUERTO RICO
MEDICAL SCIENCES CAMPUS
SCHOOL OF HEALTH PROFESSIONS
RADIOLOGIC TECHNOLOGY PROGRAM**

Student Handbook



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RADIOLOGIC TECHNOLOGY PROGRAM

Dear Students:

Welcome to the School of Health Professions, Medical Sciences Campus. As Director of the Program and on behalf of the faculty and administrative personnel, I want to extend you a cordial and warm welcome to the Radiologic Technology Program.

Right from today, a career full of new experiences and adventures will begin that will enable you to develop skills such as: use of the technology, patient handling, problem solutions, leadership and critical thought.

As the Director of the Program I am your main contact in the Program. My main responsibility is to monitor your academic and clinical progress. In addition, with the faculty's aid to motivate and assist you in whatever it is necessary so that at the end of the two (2) years of professional courses, and along with the clinical professors and instructors I will evaluate your academic and clinical work and see that you have obtained the desired academic results and goals.

Attached you will find the Students Handbook which provides you important data and rules about the program and our sponsoring institution. Review it thoroughly; it has very valuable information that may help you during your stay in the Program.

To finish, I would like to let you know that although it may seem different, I am not here to be your adversary. **I have an utter interest that you successfully complete your studies.** Therefore, have the confidence to approach me or anyone of the professors when you have any doubt. The doors of the Program are open for you at any time.

WELCOME!

**PREPARING PROFESSIONALS IN
RADIOLOGIC TECHNOLOGY**

Juan Meléndez Sostre, Ed.D., R.T.
Director
Radiologic Technology Program
School of Health Professions (SHP)
Medical Sciences Campus (UPR)

RADIOLOGIC TECHNOLOGY PROGRAM

2009 - 2010

C E R T I F I C A T E

I, Juan A. Meléndez Sostre, Director of the Radiologic Technology Program, School of Health Professions, Medical Sciences Campus, University of Puerto Rico, **Certify:**

That the faculty of the Program in an ordinary meeting held on June 11, 2010, approved the revision and amendments for the Program's Policy Document and/or General Bylaws (Student Handbook) to be effective on August 1, 2010.

In witness whereof, I issue the hereby certificate with the stamp of the Program, today June 11, 2010.

Juan Meléndez Sostre, Ed.D., R.T.
Director
Radiologic Technology Program
School of Health Professions

I. Mission:

The Radiologic Technology Program is an integral part of the academic offerings of the School of Health Professions which is one of the academic units, of the Medical Sciences Campus of the University of Puerto Rico. As part of this relationship, the program receives a total fiscal and administrative support from the university system.

The program's mission is to prepare high Radiologic Technologists who are grounded in the values and the ethical-humanistic principles to contribute to the diagnosis and treatment of health conditions, through the use of radiant energy for the achievement of special and routine procedures. This is achieved through the offering of a three year length Associate Degree.

Students who apply for admission to the program must have one year of general education. The candidate's selection process allows the admission of those best qualified.

The curriculum design is competency-based, which facilitates the development of a competent and sensible Radiologic Technologist, with high ethical standards, ability to contribute to the health interdisciplinary team, and to communicate effectively. Moreover, the curriculum emphasizes the development of critical-thinking skills, problem solving, patient care, and evaluation skills of the radiographic product. Additionally, the program promotes the development of professional values and the importance of life-long learning.

Students are exposed to a diversity of educational experiences such as: lectures, demonstrations, discussions, work groups, laboratories, oral presentations, simulations, as well as analysis and case evaluations.

The clinical component is fundamental for the application of acquired theoretical knowledge, whereas the curriculum provides clinical experiences by stages phase, which gradually increase the level of complexity. Affiliated clinical centers used are fully accredited and recognized. The variety and quantity of

experiences offered in these affiliations throughout qualified clinical preceptors contribute effectively to the development of clinical skills in the students, which prepares them to perform the professional role.

The program's faculty is highly qualified and multi competent, possessing a wide teaching and clinical experience. They keep themselves current with the latest scientific and technological advances of the profession.

As part of its social compromise, the program participates in the development of continued education activities for Radiologic Technologists and provide professional consultation to other academic institutions and agencies requesting such services.

II. Program Goals and Outcomes:

The following goals have been developed to accomplish the mission and philosophy of the Radiologic Technology Program.

Goal 1.0

Students /Graduates will be clinically competent with the knowledge, skills and attitudes that enables them to adequately meet the radiographer needs of the communities they serve.

Student Learning Outcomes:

- 1.1 Students will demonstrate positioning skills.
- 1.2 Students will be able to properly operate the radiographic equipment.
- 1.3 Students will apply radiation protection measures.

Goal 2.0

Students /Graduates will use critical thinking to problem solving.

Student Learning Outcomes:

- 2.1 Students will apply theory and practical knowledge to perform portable radiography to meet patient's needs.
- 2.2 Students will adequately estimate the radiographic exposure factors.
- 2.3 Students will correctly evaluate the quality of the radiographic image.

Goal 3.0

Students/Graduates will communicate effectively with patients and other professionals in the interprofessional health care team.

Student Learning Outcomes:

3.1 Students will demonstrate satisfactory communication skills in clinical and didactic courses.

3.2 Students will demonstrate satisfactory written and oral communications skills.

3.3 Graduates will demonstrate satisfactory communications skills.

Goal 4.0

Students/Graduates will practice ethical principles to demonstrate human sensibility, ethical values, social consciences, professional growth and professionalism in all working endeavors.

Student Learning Outcomes:

4.1 Students will understand the importance of ethical and professional behavior

4.2 Graduates will pursue continued professional development and lifelong learning.

4.3 Students will be prepared for the employment interview process.

III. General Objectives:

1. To develop and increase the rendering of quality health services in Puerto Rico through a higher access to radiologic technology services.
2. To provide students with additional educational opportunities within the field of health professions.
3. To improve the quality of radiologic technology services in Puerto Rico.
4. To promote the use of the interdisciplinary team approach in rendering primary, secondary, and tertiary health services in Puerto Rico.

IV. Specific Objectives:

1. To develop in students competencies specialized in the field of radiologic technology that respond to the constant changes in modern technology and the needs of our country.
2. To use available resources in our society that can contribute to the development of a competent professional in the field of radiologic technology.
3. To train professionals with the required skills to work together with other professionals in interdisciplinary health teams.
4. To enable Faculty members the opportunity to develop their professional competencies in order for them to exert a leading role in the areas of teaching and research on the problems regarding radiologic technology in the Puerto Rican community.
5. To establish a continuing education program for radiologic technologists in order for them to maintain the required professional practice competencies.
6. To guarantee the equitable access to all prospect students to the Radiologic Technology Program, pursuant to their capacity and interest, and in accordance with the human and physical resources available in the Institution.

V. Accreditation:

The Radiologic Technology Program is accredited by the Joint Review Committee on Education in Radiologic Technology. The program voluntarily participates in accreditation. The accreditation process has been developed to assure that programs follow educational standards that ensure academic excellence. A copy of the Standards for an Accredited Education Program in the Radiologic Technology is posted on the Program's bulletin board. The policy states that if a student has any questions or complaints regarding accreditation matters these may be directed to:

Joint Review Committee on Education in Radiologic Technology
20 N. Wacker Drive, Suite 2850
Chicago, IL 60606-3182
312-704-5300

In response to a complaint to the Joint Review Committee, the program will follow this procedure:

The Director of the program will:

1. Try to resolve the issue at local level.
2. Create a committee to investigate the issue.
3. Respond to the Joint Review Committee within 30 days of receipt of the complaint.

VI. Program Information:

A. Admission Requirements:

Applicants must have completed courses in the following areas with a general grade point average of 2.0 or higher in a 0-4 grade point scale. For specific courses within each subject, please contact the program.

REQUIRED COURSES	SEMESTER CREDIT – HOURS
English 3001 – 3002	6
Spanish 3001 – 3002	6
Humanities or Social Sciences	6
Biological Sciences	6
Mathematics	3
Electives	3
Total	30

Students seeking admission to the program must also meet the following requirements:

- Obtain a minimum grade point average of 2.00 in required courses.
- Obtain a minimum grade point average of 2.00 in specific courses (biological sciences and mathematics).
- Attend an orientation session with the faculty.
- Fluency in Spanish and knowledge and comprehension of English.

The Radiologic Technology Program does not discriminate on the basis of sex, race, marital status, age, national or ethnic origin, religion or disability.

Health Data Requirements:

All students who are admitted to the Medical Sciences Campus are required to submit a physical examination completed by a licensed physician prior the beginning of the academic year. It will be the responsibility of each student to give the following documents to the University Medical Service Office and to the Clinical Coordinator of the Radiologic Technology Program: Health Certificate, Evidence of immunization against Hepatitis B.

Immunizations:

Students admitted to the Radiologic Technology Program will have to comply with Law 25 of the Department of Health of Puerto Rico regarding immunization for the patient's protection.

B. Plan for the Degree:**SECOND YEAR****First Semester**

COURSE CODE	COURSE TITLE	SEMESTER CREDITS
TERA – 1015	Introduction to Radiologic Technology	3
TERA – 1011	Introduction to Radiologic Physics	3
TERA – 1035	Radiographic Exposures	4
TERA – 1001	Human Anatomy I	3
TERA – 1013	Radiographic Techniques and Positioning I	4
TERA – 1036	Radiographic Film Processing	4
Total		21 credits per semester

Second Semester

COURSE CODE	COURSE TITLE	SEMESTER CREDITS
TERA – 1002	Human Anatomy II	3
TERA – 1012	Radiological Physics	3
TERA – 1014	Radiographic Technique and Positioning II	4
TERA – 1035	Applied Nursing	2
TERA – 1018	Medical Terminology and Pathology	3
TERA – 1025	Pre-clinical Practice	3
Total		18 credits per semester

THIRD YEAR**First Semester**

COURSE CODE	COURSE TITLE	SEMESTER CREDITS
TERA – 2061	Clinical Practice I	6
TERA – 2000	Human Anatomy II	3
TERA – 2016	Radiographic Film Critique	3
TERA – 2017	Principles of Radiographic Protection	2
TERA – 2010	Radiographic Technique and Positioning III	3
Total		17 credits per semester

Second Semester

COURSE CODE	COURSE TITLE	SEMESTER CREDITS
TERA – 2062	Seminar and Clinical Practicum	9
Total		9 credits per semester

C. Transfer Students:

A student from another institution of higher learning who applies for admission to the University of Puerto Rico, or a student who has previously been enrolled as a transient student and meets the admission requirements for a given program, will be considered a transfer student. The student who transfers from any other university to the University of Puerto Rico, and who has completed less than 30 credits, will also be considered a transfer student if they want to apply to a campus of the University of Puerto Rico System.

Previous course work satisfactorily completed at an accredited institution of higher education will be evaluated for transfer and may be applied toward a degree program at the University of Puerto Rico, Medical Sciences Campus.

A transcript will be evaluated after a student has been enrolled at the University of Puerto Rico, Medical Sciences Campus and it will only be evaluated

upon the request of the student. An official transcript is required for each college attended. When the evaluation is completed, the number of transferred credits hours will be recorded on the University of Puerto Rico transcript.

D. Readmission Requirements:

Students admitted to the Radiologic Technology Program who for any reason interrupted their studies for a semester must file an application for readmission at the Office of the Registrar at the Medical Sciences Campus before the deadline set for the academic term. The Office of the Registrar will send the application for readmission to the Program for the Director of the Program's consideration. The Registrar will be notified of the decision at least thirty (30) days prior to the academic session for which the student is seeking readmission. The Program will notify the student the decision. Student's readmission may be determined by the following:

- a. First-year students of the Program that for any reason interrupted their studies before the end of the first academic session and comply with the admission requirements established by the Program at the moment they filed the application for readmission.
- b. First-year students in the Program who completed their first academic session but did not register for the second semester.
- c. Students of the Program who completed their first year of studies or more and who interrupted their studies voluntarily will have to apply for readmission to the Program.
- d. Students admitted to the Program who have been suspended for any disciplinary action may apply for readmission once the suspension period ends.

- e. Students admitted to the Program who have been suspended for poor academic standing may apply for readmission to the Program once the suspension period ends.

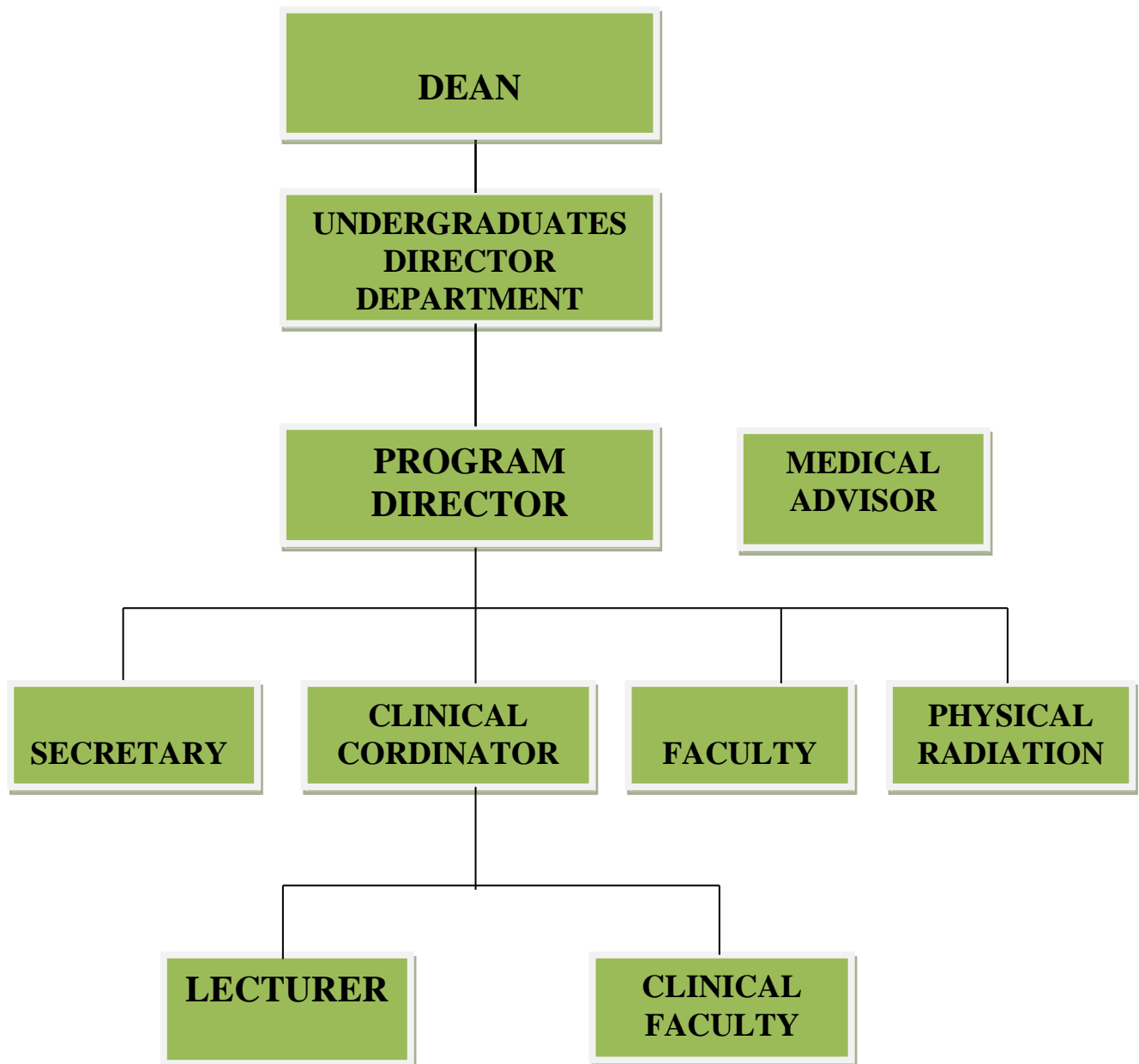
VII. Licensure Eligibility:

Pending successful completion of all program requirements, the graduate is eligible to write the certification examination administered by the Examination Board of Radiologic Technologists in Diagnostic Image in Puerto Rico. The AART Exam is not required in Puerto Rico to practice the profession.

VIII. Administrative Structure of the Program:

The Radiologic Technology Program within its organizational structure demonstrates the relation between the academic, clinical and administrative components of the program. The Director represents the Program, counting on the professional academic and clinical advice of the Director of the Department of Undergraduate, the Dean for Academic Affairs, the Dean, and the Medical Advisor. The Director of the Program assigns academic-clinical tasks, representation in permanent committees, and other activities related to the academia to the Clinical Coordinator and the permanent faculty members of the Program.

RADIOLOGIC TECHNOLOGY PROGRAM ORGANIZATIONAL CHART



Director:

The Director of the Program exerts administrative and academic functions, according to the provisions of the university laws and other regulations of the system.

Duties and Responsibilities:

1. Coordinates and reviews the development of courses and syllabus description.
2. Supervises clinical and teaching faculty members.
3. Directs the recruitment and selection of students.
4. Prepares the Program's budget.
5. Acts as head in the faculty meetings regularly.
6. Offers academic advice.
7. Prepares the Program for accreditation.
8. Develops and implements the creation of new academic offerings.
9. Offers clinical supervision and preceptorship to students.

Medical Advisor:

The Medical Advisor of the Program provides guidance in all academic and clinical aspects, as well as in other areas related to the technological changes in modern radiology.

Clinical Coordinator:

The Clinical Coordinator exerts functions of coordinator and clinical programming for the program. He ensures that norms and regulations applicable to academic and clinical institutions are fulfilled.

Clinical Coordinator Duties and Responsibilities:

1. Evaluates students' records regarding their clinical practice.

2. Coordinates clinical education and evaluates its effectiveness.
3. Cooperates with the director of the program in doing regular revisions of materials related to the clinic.
4. Prepares the clinical rotation schedules for the academic year.
5. Organizes and coordinates all aspects related to clinical practice.
6. Maintains up to date rules, policy, procedures and students' progress related to the clinical practice.
7. Participates in the curriculum offerings of the Program.
8. Coordinates clinical practice seminars.

Faculty:

The permanent academic faculty of the program offers the professional courses of the curriculum, exerting all the academic functions that it entails. In addition, they participate in the supervision and preceptorship of students in the clinical areas affiliated to the program.

Faculty Duties and Responsibilities:

1. Prepare and keep updated the syllabus and students' evaluations, and report students' academic progress at the end of the semester.
2. Participate in students' selection.
3. Offer academic advice in relation to the student execution.
4. Participate in faculty meetings.
4. Evaluate the didactic performance of students.
5. They may serve as advisors in the different committees either at the institutional or at the Program level.
6. Report the student academic schedule to the Director of the Program..
8. Participate in the supervision of the student's clinical practice.

IX. Program Policies

A. Grading System:

The grading system used by the Faculty members for major level courses with TERA codification is based in the following scale:

100	-	90	A
89	-	80	B
79	-	70	C
69	-	60	D
59	-	0	F

In order to be able to pass the course with TERA codification the student must obtain a minimum of 70%.

B. Make-up Examinations Policy:

Students of the Program will have the right to take examinations at a time other than the date scheduled by the professor of the course due to the following reasons:

- a. A student who is ill and cannot take an exam on the date originally scheduled will submit a Medical Certificate as evidence in order to be able to take a makeup examination. The Medical Certificate must be presented the same day the student returns to class.
- b. Appointments duly substantiated with government agencies such as: Superior Court of Puerto Rico, Department of the Family, and the Health Reform Office.
- c. Death in the immediate family; father, mother, children, spouse, grandparents, and siblings.
- d. Military Service training.

Examinations will be offered the week following the originally scheduled date in agreement with the professor.

C. Dress Code Policy:

Students will be responsible for:

A- Wearing the uniform to attend classes and clinical areas:

1. Men

- a. Navy blue scrub with the Program's identification. **The use of polo - shirts, T-shirts, sleeveless sweaters is not allowed in class and/or clinical areas. The initial of the student's name and their last name must be embroidered in the shirt and/or blouse, e.g. J. Meléndez.**
- b. The use of jeans, overalls or short pants will not be allowed.
- c. Closed white shoes (**The use of slippers, tennis shoes or any other type of unauthorized shoes will not be allowed**).
- d. Long sleeve white coat. **The coat shall be at knee length.**
- e. Program's Badge
 - 1) It will be sewn or glued on the left pocket of the white coat.
- f. All students will use the identification card during their attendance to classes or clinical areas.

1. Females

- a. Navy blue scrub with the Program's identification. **The use of other type of blouse, sweaters or T-shirts is not allowed in class and/or clinical areas. The initial of the student's name and their last name must be embroidered in the blouse, e.g. S. Fuentes.**
- b. The use of jeans, overalls or short pants will not be allowed.
- c. Closed white shoes (**The use of slippers, tennis shoes or any other type of unauthorized shoes will not be allowed**).
- d. Long sleeve white coat. **The coat shall be at knee length.**
- e. Program's Badge

- 1) It will be sewn or fasted with pins on the left pocket of the white coat.

The complete established uniform will be worn at all times in the class areas. The uniform to be used in the clinical areas will be the white coat, Cecil blue color scrub and closed black shoes. Students who do not comply with these requirements will be subject to sanctions imposed by the Disciplinary Committee of the Program

D. Personal Appearance

Every student of the program must **always** observe the rules of hygiene and personal appearance at the School of Health Professions of the Medical Sciences Campus and the Clinical Affiliations areas. Students should always look neat and tidy.

1. Men

- a) Well groomed hair, beard and mustache (if any).
- b) Fingernails should be clean and trimmed.
- c) Men wearing earrings will not be accepted in classrooms, clinical areas or at School.
- d) Shirt and coat properly buttoned.
- e) Clean uniform and coat.
- f) Male students with opened shirts (unbuttoned) or worn outside pants are not allowed in the School of Health Professions academic areas or clinical areas.
- g) Tennis shoes are not allowed.
- h) Students wearing T-Shirts, slippers and short pants will not be allowed in class, clinical areas, etc.

2. Females

- a) Make-up should be kept simple.
- b) Earrings must be small, if worn. The use of flashy jewelry is not allowed.
- c) Fingernails should be short, clean, and well manicured.
- d) Hair has to always be tied-up while in the clinical areas.

- e) Tank tops, midriff blouses, short pants or slippers will not be allowed.
- f) Tennis shoes are not allowed.

X. Interpersonal Relations and Ethics

It is expected that all students maintain cordial and respectful relations with other students, faculty members, and other health professionals during their stay in the program.

1. It is the students' responsibility to offer their services without prejudice on the basis of sex, race, age, beliefs, religion, social status or physical disability.
2. Students will not disclose or offer information of any patient to whom they are rendering service, regarding their health condition.
3. Students must comply with the confidentiality rule when sharing information of their patients with other professionals of the interdisciplinary health team.
4. Should any situation involving health, conflict or accident arise it must be notified as soon as possible to their clinical supervisor for proper action.

No student active in the Program is authorized to disclose or to offer any information with respect to the diagnosis, condition of the patient, procedure, situation, etc., thus complying with that established in the Health Insurance Portability and Accountability Act (HIPAA).

5. Communication should be effective by using the adequate terminology with the other members of the interdisciplinary health team.
6. It is the students' responsibility to maintain the integrity and rights of the patients with whom they participate actively or indirectly during the radiographic process.

XI. Behavior and Attendance

1. It is expected that students always be polite to professors, students, and other staff members.
2. Unnecessary social gatherings in the program class or clinical practice areas should be avoided (it is recommended to avoid social gatherings of controversial nature).
3. Disrespectful behavior, irresponsibility, lack of discipline, altering official documents of the Program (evaluations, attendance, etc.) falsifying or intention to falsify, among others, will entail to screen the violation committed, imposing the penalties that the Program's Disciplinary Committee establishes. Penalties will be taken using the Medical Sciences Campus Student Handbook as a reference.
4. Every student has the right to appeal the decision of the Disciplinary Committee by means of the corresponding forum as set forth in the discipline regulations of the School of Health Professions, Medical Sciences Campus.
5. The use of the Program's communication services such as telephone, fax, and computers will not be allowed for students' personal use.
6. Students must follow the instructions of the preceptorship faculty or other personnel in charged and authorized in the clinical areas.
7. Attendance to classes, clinical practice, and seminars is obligatory.
8. Any student who does not attend a previously announced examination will not have the right to take the makeup examination unless they present a written excuse that justifies the absence.
9. Three (3) absences without a sound justification within a semester period will be registered and a reduction of 10% will be applied to the student's final grade, in those courses in which the student was absent (for example: court or medical appointments, illness, among others).
10. Issues related to lateness, absences, grades, incompletes (I), makeups and works pending or others, will be discussed with the professor of the class in which the student has not fulfilled or completed his/her work and pursuant to the Rules and Regulations Handbook of the Office of the Registrar in the Medical Sciences Campus.
11. It is the students' responsibility to notify their supervisor of the Center of Practice and their Professor or Clinical Coordinator of any absences or lateness.

12. It is required that the student submits to the Clinical Coordinator a medical certificate sealed and signed by the doctor when absent from the clinical area due to illness. The medical certificate must be presented upon the student return to class.
13. The assigned schedule to classes and clinical practice is subject to change according to the needs of the Program or changes in the clinical area.
14. Absences in clinical areas that are not caused by certified illness must be replaced. Students will coordinate with their instructor/supervisor or Clinical Coordinator the makeup hours for clinical practice, using the forms included in the handbook. Absences to classes and clinical areas longer than three (3) days due to illness will require presentation of a medical certificate.
15. Second year professional students will have to obligatorily and promptly attend to the Seminars that are offered as part of the TERA-2062 Seminar and Clinical Practice course. Three (3) absences to the seminars are equivalent to eight (8) hours of clinical practice and entail a reduction of 10% to the final grade of the course. These hours must be replaced at the end of the semester.
16. Students will take special shifts on weekends in their last academic semester as part of their clinical rotation. **The schedule for Clinical Practice during weekends will be: Saturday 7:00 a.m. to 3:00 p.m.; 3:00 p.m. to 11:00 p.m. 11:00 p.m. to 7:00 a.m. and Sunday 7:00 a.m. to 3:00 p.m. Attendance to these shifts is obligatory. The student who takes shifts during the weekend will be compensated by exempting him/her of clinical practices the next working day to ensure that the student does not exceed more than 40 hours a week.**
17. The replacement of clinical practice hours outside the established schedule will have to be made at the end of the semester and will have to be coordinated and authorized by the Clinical Coordinator with the approval of the Director of the Program.
18. The means of transportation to and from the clinical area will be the students' absolute responsibility, in order for them to fulfill with the academic requirements and obtain the competencies and skills of the clinical component.
19. A student leaving the practice area without authorization will be considered an unjustified absence. This time must have to be replaced.

20. Students who would like to report for clinical areas outside stipulated days and schedules in order to increase their skills will need a written authorization from the Clinical Coordinator with the Director the Program's approval. The Clinical Coordinator will notify the supervisor of the clinical area. The accrued hours will not be replaced by the regular schedule of clinical practice.
21. It is the student responsibility to comply with the date stipulated by the Clinical Coordinator to change the dosimeter.
22. It is the students' responsibility to correctly handle and use the pocket dosimeter during their stay in clinical areas.

Loss of the dosimeter entails an additional payment for the student to the dosimeters; holding company by means of a money order payable to the company. This matter must be handled with the Clinical Coordinator of the Program.

23. Students must wait for a period of 15 minutes, in those instances where the professor has not shown to class; after these have passed, students will be able to leave the classroom or the laboratory without any sanction. Before leaving the classroom, students must notify the Director of the Program that the professor of the class did not arrive.
24. After being evaluated by their clinical supervisor students must hand over to the Clinical Coordinator all Clinical Practice Handbook documents duly completed.
25. All students will register their attendance to clinical practice in the sheet provided in the handbook. The sheet must be initiated by the Radiological Technologist in charge, the Supervisor or the Clinical Preceptor in charge of the student.
26. Students will perform radiographic procedures only under the supervision of the Certified Radiologic Technologist (Clinical Instructors).

XII. Clinical Education

Clinical experiences will allow students to practice the skills learned in the didactic courses to obtain high quality images in Conventional Radiology. The activities during the clinical practice are organized in such a way that the student develops the competencies gradually.

This will be achieved by means of initial guidance, demonstration, observation and the performance of radiographic procedures under indirect supervision, in order that the student acquires the necessary confidence and experience to carry out the different studies. In the design of the three (3) clinical competencies courses five (5) stages in the gradual development of the competencies are identified:

- a. Entrance Level – it consists of guidance, and observation on the part of the student when rotating through all the clinical facility areas and to interact with the patient in scheduling appointments, screening, and transfer of the patient within the center.
- b. Level I – the student will offer information to the patient, image processing and maintenance of equipment, in addition to the activities included in the entrance level.
- c. Level II – the student will work on patients’ screening, selection of exposition factors, patient’s position and film processing.
- d. Level III – the student will perform different routine clinical procedures always under direct supervision.
- e. Level IV – the student will perform clinical procedures with minimum supervision.

XIII. Clinical Practices and Evaluations:

The Radiologic Technology Program organizes its students’ clinical practice in six rotations for semester. Each rotation has a three week duration in which the student has the opportunity to rotate in several institutions of clinical

practice. Students have the opportunity to experience different radiologic procedures and the use of advanced technology.

The Clinical Coordinator of the program prepares a rotation plan in order for the student not to be exposed more than once in an assigned area. The Program's Clinical Education element is divided in three practice courses:

1. TERA-1025 Seminar and Pre-clinical Practicum

This course provides the student with the experience of clinical practice directed to accomplish radiographic procedures applied to the upper and lower limbs of the human body, under the direct supervision of a Radiologic Technologist. It entails the application and integration of knowledge acquired in previous courses to provide basic care and comfort to the patient. In addition, it allows for student participation in the use and handling of the portable unit where it applies. The student will be supervised by the facilitador of the clinical area that he/she designates and by the professor in charge.

2. TERA – 2061 Clinical Practice I

This course provides the student with the experience of clinical practice directed to accomplish radiographic procedures applied to the shoulder band, thoracic cage, abdomen, pelvic band and backbone under the direct supervision of a Radiologic Technologist. It entails the application and integration of knowledge acquired in previous courses to provide basic care and comfort to the patient. In addition, it allows for student participation in the use and handling of the portable unit where it applies. The student will be supervised by the facilitador of the clinical area that he/she designates and by the professor in charge.

3. TERA – 2062 Seminar and Clinical Practice III

This course corresponds to the last stage of clinical practice. This practice is directed to accomplish radiographic procedures that require administering contrast agents, and other procedures of conventional radiology under the direct supervision of a Radiologic Technologist. The course has integrated a seminar in which subjects of relevance for the professional practice in the field of radiographic imaging are discussed. The student will be supervised by the

facilitador of the clinical area or Radiologic Technologist that he/she designates and by the professor in charge.

4. Requirements for Clinical Practice Courses

It is the student responsibility to hand over to the Clinical Coordinator the following documents:

- a. Current Health Certificate
- b. Clean Criminal Record Certificate
- c. Evidence of Hepatitis B Vaccination
- d. Two (2) 2x2 photos

During their clinical practice students will be evaluated as follows:

1. Each student will be evaluated at the end of the rotation period by the Radiologic Technologist in charge of the unit. In addition, they will have two (2) evaluations by their clinical supervisor.
2. Students must sign their evaluations after discussing them with their evaluator. **The integrity and honesty of the student are important factors in this area.**

XIV. Promotion and Graduation

Student academic performance is evaluated by the Director of the Program. Students, who meet all the criteria and requirements according to the rules of the Program, will be recommended to the Promotions Committee of the School of Health Professions.

If the student **does not meet** the established criteria or requirements, the Director will make the relevant recommendations to the Promotion and Graduation Committee of the School of Health Professions. Recommendations may include retaking of clinical and academic experiences or suspension of academic and clinical experiences. .

In order to receive the Associate Degree in Radiologic Technology, students must comply with the following requirements:

1. To have completed the courses with a minimum 2.0 overall grade point average within the 4.0 grade point scale for graduation.

2. To have completed courses with a minimum 2.0 cumulative grade point average within the 4.0 grade point scale each semester.
3. To have completed all major level courses with a minimum grade point average of 1.5 C.
4. TERA- 1013 Radiographic Technique and Positioning I, TERA- 1014 Radiographic Technique and Positioning II and TERA-2000 Radiographic Technique and Positioning III are prerequisites courses for Clinical Practice.
5. The Program follows the rules of the Office of the Registrar, Medical Sciences Campus regarding Cum Laude, Magna Cum Laude and Summa Cum Laude honors.

3.30	-	3.49	Cum Laude
3.50	-	3.99	Magna Cum Laude
4.00			Summa Cum Laude

6. Students must complete all studies requirements within the time established by the Program in order to be awarded the Associate Degree in Radiologic Technology. Those students who for any reason have not completed the degree during the established time will have a maximum extension of time of 1.5 years to complete the degree.
7. Students who obtain Incomplete will be subject to the remedial action that the professor offers if the cause by which they obtained the incomplete is due to the student.
8. **Prerequisite courses in which a student obtains a grade of incomplete "INC" must be removed no later than a week after the beginning of the next semester. It is the student full responsibility to make the proceedings for the removal of the incomplete within the term of days that the Office of the Registrar of the Medical Sciences Campus stipulates. Other courses in which the student obtains a grade of incomplete "INC" must be removed no later than the following semester.**
9. Program's rules regarding average and grades are in accordance with those of the Office of the Registrar of the Medical Sciences Campus.
10. Students, who present academic or clinical deficiencies, after being interviewed and their case evaluated by the professor of the course in which they confront problems and after being evaluated by the Promotion and Graduation Committee of the Program, will be referred by the Director of the Program to the Office of Student Affairs of the School of Health Professions, for guidance.

11. Students with disabilities and who receive Vocational Rehabilitation services, and who voluntarily want to notify it, may talk with their professor at the beginning of the course to plan their reasonable accommodation according to the recommendations of the Administration of Vocational Rehabilitation. Those students with special needs that require some type of assistance or reasonable accommodation can voluntarily contact their professor.
12. Any professor may refer cases in which the student confronts problems to the Office of Student Affairs of the School of Health Professions, for guidance.
- 13. It is considered that students have attained academic Progress when they:**
- a) **meet a general grade point average of 2.0.**
 - b) **pass 90% or more of the professional courses and /or required credits each semester within the academic year.**

Academic Level	Total of credits	Total of minimum credits passed
<i>First Year</i>		
1st Semester	21	18
2nd Semester	18	15
<i>Second Year</i>		
1st Semester	17	15
2nd Semester	9	9

XV. Laboratory Policy:

The rules, policies, and administrative instructions related to the use, maintenance and discipline of the Radiologic Laboratory of the Radiologic Technology Program of the School of Health Professions, Medical Sciences Campus, University of Puerto Rico have the intention to maintain an optimal operational level of all the accessories and radiographic equipment of the laboratory; maintain control of the use of radiographic didactic accessories, audio-visual materials and others used to complement the lectures offered in the courses of the curricular sequence of the program; assure that lending of the facilities is equitable and fair for all users at the moment they request it. The rules to follow to use the radiologic laboratory are:

- a. The permanent faculty and regular students of the Program will be able to use this room according to the hours stipulated in the program of stereotyped courses of each teaching period.
- b. The faculty and regular students of the program will be able to use the laboratory room after 4:00 P.M. from Monday to Friday, after duly completed the corresponding request for use, its use has been approved, and maintenance and discipline rules set forth in this regulation are fulfilled.
- c. It could be used by any member of the faculty of the School of Health Professions that formally asks the Program, duly completes the request for use, is authorized by the Director of the Program and fulfills the maintenance and discipline rules set forth in this regulation.
- d. Any equipment or accessory that is broken, damaged or lost during the period in which it was assigned to the user, the corresponding cost for repair or purchase will be charged to the user, as the case may be.
- e. The teaching faculty of the Program will have priority over the use of the radiologic laboratory room laboratory.
- f. Each faculty member will have to request for the use of these facilities completing the corresponding form to the Director of Program for its approval or disapproval.
- g. Students who request for the use of these facilities will have to present a written recommendation of the professor in charge of the course for which the student needs to practice after regular class hours.
- h. Under no circumstances students will be accepted in the facilities of the radiologic laboratory wearing the incorrect or incomplete or untidy uniform.
- i. The use of alcoholic beverages, illicit drugs, or any other type of narcotics is totally prohibited in the facilities of the Program. Violations to this clause are sufficient reason for the immediate suspension of any student or an administrative sanction to the faculty member that allows such conduct.
- j. No eating or drinking is permitted in the laboratory or classrooms.
- k. Smoking is forbidden in the classrooms or laboratory.
- l. The professional behavior of the users during practices, development of projects or practices in the laboratory is emphasized.

XVI. Institutional Policy

The program safeguards the health and safety of students by means of the following institutional procedures:

- a. **Harassment Procedure** (Amended procedure to take informal or formal action on sexual harassment and gender discrimination complaints. Circular letter #95-06) (See **Appendix I**).

This institutional procedures state the formal and informal actions to be taken in any case of sexual or gender harassment when an individual is object of unwanted sexual approaches under the following circumstances: when it occurs in relation to employment or studies between the harasser and the victim, when it affects the work or academia environment of the victim.

- b. **Institutional Communicable Disease Policy:**

Students of the Radiologic Technology Program as being exposed to the hospital environment where they make their clinical practices turn themselves into a high risk population to contract Hepatitis B. Therefore, it is a requirement for all students enrolled in the Medical Sciences Campus to be immunized or in the process of immunization against Hepatitis B.

- c. **Chemoprophylaxis Post Exposition to HIV Policy**

This policy states the protocol to be followed if a student is accidentally exposed to blood or potentially infectious fluids. The established protocol must be followed for evaluation and chemoprophylaxis (See **Appendix II**). This protocol is based on OSHA (1910-1030) and the regulations of the Department of Health of Puerto Rico.

The policy stipulates for the evaluation, diagnosis, treatment and counseling to university community members at risk. The service must be provided at no cost to the person exposed within two hours after exposure. Deans, Associate Deans, Office Directors, Department and Supervisors are responsible for the referrals for evaluation and treatment.

- d. **Substance Abuse Policy** (University of Puerto Rico, Medical Sciences Campus Policy and Regulations about use of illicit drugs, controlled substances, and alcohol abuse).

The program is subject to the University of Puerto Rico, Medical Sciences Campus policy and regulations on the use of illicit drugs, controlled substances, and alcohol abuse. The purpose of the policy is to contribute to the quality of life of the university community members. It establishes disciplinary actions and administrative procedures that must be followed if

students or staff members are found using, manufacturing, or distributing controlled substances or alcoholic beverages (**See Appendix III**).

e. **Hazard Policy**

The Radiologic Technology program has established a policy based on the OSHA Lab Standard and Medical Sciences Campus Chemical Safety Manual to guarantee the safety of students when managing hazardous substances and materials. Besides, each department of radiology in the different clinical areas that collaborate with the program has their own hazard policies.

Materials considered hazardous are listed in Law 29, CFR Subpart Z. Toxic and Hazardous Substances. It is also considered hazardous if it produces cancer, is corrosive, toxic, irritant or produces harmful effects in specific body organs. The following table shows an account of hazardous materials that students might handle.

Hazardous materials at the Department of Radiology

Name of hazardous material	Use	Manufacturer
Developer	Film developing	Eastman Kodak
Fixer	Film developing	Eastman Kodak
OPA Cidex	To Disinfect transducer and sonography biopsies guide	Johnson and Johnson
Formalin 10%	For pathology samples	Biochemical Sciences
Kleen Aseptic	Germicide	Metrix
Betadiene Providine	Disinfectant	Triad Disposable
Alcohol Ethyl	Disinfectant	Agropharma

The following hazard policy is established in the Program:

1. Students exposed to lesions during harmful substances management in the clinical practice center must notify immediately the Supervisor of the Radiology Department and the Director of the Program of the accident. Minor lesions may be treated in the University Safety and Occupational Health Office.
2. The Supervisor of the Radiology Department must submit a report to the CASSO office and to the Occupational Health Clinic.
3. In case accidental chemical substances affect eyes, students must soak their eyes with clean water for at least fifteen (15) minutes.
4. If a student inhales toxic or irritant material they must be removed immediately from the facility to an open fresh air area and contact 911 emergency medical

- services. Students must wear lab coats, long pants and shoes. The use of sandals is not allowed.
5. Students wearing contact lenses must use protective eye glasses (safety glasses or goggles) when managing harmful chemic substances.

f. Infection Control:

During their clinical practice the students of the Radiologic Technology Program are exposed to infectious organisms. Therefore, students will have to put into practice the principles of medical asepsis to prevent nosocomial infections to protect themselves, and observe the following precautions:

1. Students will have to wear gloves during the performance of a radiographic procedure when there is a possibility that their hands may come in contact with body fluids such as urine, blood, feces, wound drainage, oral secretions, sputum, and vomit.
2. Students will have to protect their clothes by wearing a coat given the possibility that clothes may get soiled with body fluids.
3. Students will wear facemasks, respirators (filtering dusk mask), and eye protection whenever there is a possibility of mucous membranes being splattered by body fluids or when in contact with patients who have infectious diseases during the performance of a radiographic procedure.
4. Thorough hand washing must occur at the beginning of their practice day, after performing a radiographic study, after in contact with secretions or excretions of a patient, before entering and after leaving the isolation area, and after finishing their work.
5. Students will deposit all sharps such as hypodermic needles, syringes, and scalpel blades in medical/biohazard waste containers.
6. During **any** process of cleaning or disinfecting, gloves shall be worn.
7. Students will always wash their hands after each patient contact.
8. Any student who has been in contact with a patient who has an infectious disease will immediately notify it to the Clinical Instructor, the Director of the Program, and the professor who supervises his/her practice.

All students must follow the policy for Control of Infections of the Clinical Practice Center to which they are assigned.

XVII. Safety and Health Information:

A. Health Insurance:

Every student of the University of Puerto Rico, enrolled in two or more courses, must have any sort of health insurance plan coverage. (Circular Letter of August 7, 1995). Next is the procedure:

1. At the time of registration (annual, semester or quarterly), students must submit evidence that they are covered by a private medical plan.
2. Should they fail to submit evidence, they will be required to participate in the medical plan contracted by the University of Puerto Rico for its students.
3. Students have the option to pay the quotas of a basic medical plan or one with prescription drugs coverage.
4. Individual coverage is only offered for the student. There is no familiar coverage.
5. The student will receive by ordinary mail the medical plan card which will be sent by the Office of the Medical Plan.

B. Medical Services:

Medical services are available to all students registered in the Medical Sciences Campus of the University of Puerto Rico, without distinction of their form of payment or type of medical plan. Students will have to follow the following procedures in order to receive medical services:

1. Students must be registered in the Campus. They will have to present their registration validation card and their student card as evidence.
2. The student will have to present the following admission requirements: (a) physical examination history, (b) notarized treatment authorization, (c) vaccination evidence, and (d) basic laboratories

C. Insurance:

All students registered in the Medical Sciences Campus, University of Puerto Rico have an insurance policy to cover student accident risks while they are doing their practice outside the Medical Sciences Campus. The policy has a \$ 25,000.00 limit in case of death and dismemberment.

D. HIPAA:

The Health Insurance Portability Act (HIPAA) requires that all health information be protected and assured by all the people who handle or have access to health information. All students and faculty members of the program have access to health information as part of the educational process. In view of that, the program annually provides to the faculty and students of the program the HIPAA Workshop equivalent to three (3) hours at the beginning of clinical practice by previous contact. The reason for this is that clinical affiliation centers require that every student who is going to do clinical practice must present evidence of having taken this workshop.

XVIII. Radiation Monitoring Policy:

Prior to the beginning of their clinical practice all students are required to have a thermoluminescent dosimeter during all their stay in the program. Dosimetry services are provided by the Mirion Dosimetry at an approximate cost of \$ 60.00 per student. The cost of these services covers the academic year in course. It is the responsibility of all students to change their dosimeter on a monthly basis according to the dates stipulated by the Clinical

Coordinator of the Program. The Physicist of Radiation of the Program has the responsibility:

- a. To guide students on handling and precautions of the dosimeter and about over-exposure levels.
- b. To evaluate dosimetry monthly reports issued by Mirion Dosimetry Services.
- c. To discuss said reports with the Medical Advisor of the Program and recommend an action plan as the situation warrants.
- d. To corroborate with the Radiologic Service Managers of the different clinical facilities in order to identify possible causes of over-exposure on students and modify professional practices.

XIX. Recommended Radiation Dose Limits:

NCRP report # 116 has established a maximum annual dose limits for all adult radiation workers at 5,000 millirems or 50 millisievert, and quarterly dose limits of 1,250 millirems or 12.5 millisieverts. Therefore, adult (at least 18 years of age) radiology students have the same dose limits as other radiation workers.

In compliance with the ALARA principles, the program recommends the maximum annual dose limit for adult radiography students to be 500 mR/50mSV or a quarterly limit of 125 mR/1.25 mSv.

XX. Comprehensive Clinical Objective:

Once the student completes the requirements of the Associate Degree in Radiologic Technology Program, the graduate can be competent and proficient in the following areas:

- a. The graduate student can demonstrate capacity in the selection of radiographic exposure aspects.
- b. The graduate student can demonstrate capacity when using protecting measures against radiation for the patient, the personnel and himself.
- c. The graduate student can demonstrate capacity in the radiographic techniques

and positions.

- d. The graduate student can demonstrate capacity in the preparation of radiopaque contrast media to be used in special studies.
 - e. The graduate student can create a favourable sympathetic communication with the patient.
 - f. The graduate student can demonstrate capacity when processing X-rays by automatic digital developing.
 - g. The graduate student will be able to examine X-rays in order to evaluate exposition, position, and control of quality factors.
 - h. The graduate student will be able to perform high quality radiographic studies
 - i. The graduate student can determine the radiographic studies to be made according to the clinical diagnosis and the pathology the patient presents.
 - j. The graduate student will be able to provide first aid to the patient in emergency situations.
 - k. The graduate student will be able to perform pre-operating and postoperative radiographic studies to the patient.
 - l. The graduate student will be able to work in coordination with other health professionals.
 - m. The graduate student will be able to identify the anatomy of the human body.
 - n. The graduate student will be able to maintain professional ethics.
 - o. The graduate student can demonstrate self-assurance in the functions that he/she performs.
 - p. The graduate student can demonstrate his/her capacity to educate the patient on radiographic tests.
 - q. The graduate student can demonstrate safe aseptic techniques.
 - r. The graduate student can demonstrate competency in the accomplishment of basic radiographic procedures such as head, neck, abdomen (gastrointestinal and Genitourinary), abdomen (with/without contrast), upper and lower extremities, chest, vertebral column, and pelvis.
 - s. The graduate student can demonstrate competency in the accomplishment of procedures to pediatric and adult patients such as: trauma procedures, surgical procedures, and portable unit.
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XXI. PREGNANCY POLICY:

PREGNANCY POLICY

I. Background

There is a possibility that a student can get pregnant during the Program's academic year. This could present some problems for the student in order to complete her studies within the expected time. For this reason it is necessary to notify students before they begin the clinical practice of the program about the possibility of X rays exposure. It is known that there are ways to perform radiographic procedures maintaining radiation exposure as a low as reasonably achievable (ALARA). The appropriate use distance, shielding and time, according to the established procedures of radiological protection, guarantees ALARA exposure levels. Normally, the exposure to radiation that the student may get is very low. The average monthly reports of exposure indicate the following:

- Average Readings: less than 10 millirems per month
- Maximum observed in the last five (5) years: 40 millirems
- More than 98 % of the readings is minor of than 20 millirems

The National Council on Radiation Protection (NCRP) has recommended that during the period of gestation the equivalent dose of the fetus should not exceed 0.5 rem.

II. Program Pregnancy Policy

The policy of the Radiology Technology Program is informing all the students of the risks of radiation exposure, how to avoid unnecessary exposure, and methods of radiation protection.

Voluntary Pregnancy disclosure is the decision of the pregnant student as to whether or not she wishes to notify program faculty of her pregnancy. If at any time, the student voluntarily decides to declare her pregnancy she must provide written notification to the Program Director or Clinical Coordinator. The Director of the Program must make sure that the student receives a copy of the written policy on radiation exposure.

During the course of the regular studies, the program must guarantee that the declared pregnant student exposure does not surpass the fetal limits of radiation exposure.

The policy of the Program is to provide support to the pregnant student. The student must also understand that all the requirements of the Program must be fulfilled in order for her to graduate and receive her diploma.

The student has the following options:

A: To remain in the Program without any modification of her program

This options requires the following:

1. To submit in writing her decision to stay in the program and a written consent of her doctor. The documents will be filed in the student's record.
2. The student will receive information of the safety hazards on radiation exposure and the risks that involve the exposure to radiation of the fetus. The faculty members will always remind the student of her responsibility to fulfill the rules on occupational security and radiological safety. It is important to take into consideration that the first quarter of the pregnancy is the most sensitive stage of development for the fetus, and faculty members should be available to assist in the best fulfillment of their responsibility.
3. It is required the use of the fetal dosimeter for the clinical practice during the pregnancy. This dosimeter bears an additional cost that will be provided by the student.
4. If for health reasons the student is forced to frequently be absent from the class or clinical practice, her case will be evaluated according to the rules established in this policy.

B. Postponing clinical courses

This option requires the following:

1. The grade of Incomplete will be granted to the student for the clinical courses in progress, which will have to be completed after the culmination of the pregnancy in the next academic session.
2. If for health reasons the student is forced to frequently be absent from the class or clinical practice, her case will be evaluated according to the rules established in this policy.

C. Not to remain in the program, obtain a leave of absence

This option requires the following:

1. The student will be allowed to interrupt her studies for a maximum period of one (1) year.
2. Once the pregnancy or the year has passed, the student will be able to return to the Program. She can return at the next academic session that offers the courses according to the curricular sequence, without having to go through readmission.
 - a. The student must initiate the necessary proceedings with the Program ahead of time, enough to allow her to return in the next academic session, no longer than a one (1) year.
 - b. The one year maximum temporary halt of the courses will not count for the maximum time established for the completion of the degree.
 - c. If the student does not communicate or coordinates her return to the academic program, it will be understood that she will not return to complete the academic program. If she decides to return after the time limit has passed, she will have to complete readmission procedures.
 - d. Additional time over the maximum year allowed for the temporary halt will affect the maximum time for the completion of the requirements for the degree.

Individual orientation

When a student declares that she is pregnant, she will receive an

orientation provided by an expert in radiology safety. During the orientation, the student will have the opportunity to present her worries and to clarify her doubts. After receiving the orientation, the student will notify in writing to the Director of the Program, with copy to the Clinical Coordinator her decision to continue or not with the program clinical courses. The decision to not continue with the clinical courses is during her pregnancy.

In case that the student decides to continue her studies, she will have to accept the responsibility, comply with the rules on occupational security and radiological safety, taking in consideration that the first trimester of the pregnancy is the stage of greater risk for the fetus.

The faculty of the Program must make the maximum efforts to take care of any need that the student presents in order to be able to facilitate her to fulfill this responsibility.

She will also be provide with written material explaining the risk of radiation exposure and the safety measures to reduce those risk to a minimum. All didactic and clinical courses work must be complete prior to compellation and graduation for the program

Designation of areas of clinical practices

The pregnant student who decides to continue with her regular academic program will have to complete the rotation for the clinical practice stated by the Clinical Coordinator of the Program.

The rotation areas include conventional radiology, fluoroscopy, operating room and the portable units at the center of practice assigned to the student.

D. Withdrawal of pregnancy declaration:

The student has the following options:

1. A student that has already declared her pregnancy, have the options to revoke the declaration of pregnancy through a written document. Once the student revokes its declaration, does not apply the lower dose limit of radiation for the embryo/fetus.
2. **It is students right to also withdraw her pregnancy declaration at any**

time. Should a pregnant student elect to undeclared a pregnancy, she must do so in writing to the Program Director.

XXII. Library

The Conrado F. Asenjo Library of the University of Puerto Rico, Medical Sciences Campus, is the main health sciences information resource in the Island. It contains one of the most complete collections of its kind in the Caribbean. This library offers a full range of services to students and faculty of the School of Medicine, Dentistry, Public Health, Pharmacy, Nursing, and the School of Health Professions. Its resources and services are available to the Medical Center Hospitals personnel as well as to the University of Puerto Rico Hospital in Carolina. It also serves practicing health professionals and the community at large.

The Library is affiliated to the National Network of Libraries of Medicine of the National Library Medicine (NLM). As part of this Network the library participates in its document delivery program to share its resources with other libraries. It is also member of the Consortium of Southern Biomedical Libraries (CONBLS). Through these programs, materials that are not available in the collection are obtained from other health sciences library using ARIEL software for interlibrary loan transmittal. In addition, there are collaborative agreements with the Veterans Administration Hospital Libray, the Río Piedras Campus Natural Sciences Library System. Fax and electronic transmittal of documents are available.

The collection comprises 44,684 book titles and 1,245 active journal subscriptions covering the fields offered by the campus academic programs. Interdisciplinary in nature, the collection is developed using Selected Lists of Books and Journals published in the Health Sciences such as, “Doody’s Core Titles in the Health Sciences” and through the active participation of faculty in the selection process. Non-print materials such as slides, films, cassettes, CD-ROMs, DVD’S and videocassettes programs are available at the Audiovisual Center, which provides facilities for individual and group viewing.

HORIZON System is used for the Library Online Catalog and Library Electronic System. It is part of the University Libraries System available from

computers throughout the different campuses. This online public access catalog is available through the Internet at the Library's web page <http://rcm-library.rcm.upr.edu>. Also, there is a wide range of databases covering every discipline, some including full text articles. The Libray provides remote access with password and username, to:

EBSCOHost

- **MEDLINE:** Provide citations and abstracts from over 4,600 current biomedical journals on medicine, nursing, dentistry, veterinary medicine, the health care system, pre-clinical sciences etc.
- **Cochrane Databse of Systemic Reviews:** Contains full text articles, as well as protocols focusing on the effects of healthcare.
- **Cochrane Controlled Trials Register:** Bibliography of controlled trials. Includes reports published in conference proceeding and in many other sources not currently listed in MEDLINE or other bibliographic databases.
- **PubMed:** National Library of Medicine Database includes: Medline Plus, CancerLit, Toxnet, Pre-CINHAL.
- **Cumulative Index to Nursing and Allied Health Literature (CINAHL):** Provide indexing and abstracting for over 1,600 current nursing and allied health journals and other publications dating back to 1982. This database also provides full text for 56 journals plus legal cases, clinical innovations, critical paths, drug records, research instruments, clinical trials.
- **International Pharmaceutical Abstracts (IPA):** Includes information from over 750 pharmaceutical, medical, and health related journal published worldwide since 1970.
- **MedicLatina:** Spanish language collection of medical research and investigative journal that provides access to full text for nearly 125 periodicals, including over 50 peer-reviewed medical journals.
- **Academic Search Premier:** Multi-disciplinary database containing full text for more than 3,600 scholarly publications, including more than 2,700 peer-reviewed publications.
- **Educational Resources Information Center (ERIC):** References and abstracts on over 980 educational journals.

- **Professional Development Collection:** Includes the complete text of 515 educational journals.
- **Master File Premier:** Multi-disciplinary database that includes complete text on 1,950 general references including books, biographies, Images Collection (photographs, maps, flags).
- **Ocenet: Medicina y Salud:** Medical information in Spanish.
- **American Psychiatry Online.**

ProQuest

- **Proquest Medical Library and MEDLINE will Full Text:** Offers more than eleven million abstracting and indexing of scientific journal articles compiled by the National Library of Medicine. It integrates complete text with graphics and PDF of 200 titles of the most important publications in medicine.
- **Proquest Nursing Journals Collection:** A full text collection of more than 250 nursing and allied health periodicals, including page images for some articles.
- **ABI-INFORM Global:** Includes references and complete text of publications related to business and administration.
- **ProQuest Dissertation and Theses- Full Text:** Two million dissertations and thesis published since 1980 until the present.

The Library also provides remote access, with username and password, to the following general databases:

- **WilsonWeb:** Set of databases providing citations and full text articles on general and applied science, business, humanities, art, education, law, social sciences, and agriculture.
- **Infotrac:** Includes full text information on biographies, history, law, literature, and other general topics.

There are other databases restricted to the campus IP addresses, which are important to the medicine field:

- **MICROMEDEX:** Set of databases providing full text information on chemical, pharmaceutical, and biological substances related to clinical patient care.

- **MDConsult:** Gives electronics access to more than 40 references books, 55 clinical journals, over 600 practice guidelines, patient handouts and drug information. Includes full text.
- **Web of Science:** Electronic version of the Sciences Citation Index Expanded and the Social Sciences Citation Index.
- **CRC Net Base: Electronic Books published by CRC Publishers.**

There are computers available throughout the Library by which students may have access to the Library's electronic and print resources. The Reference librarians offer workshops on the development and management of information search skills in the use of data bases, preparation of bibliographies, use of evidence based practices, and others. In the Library's Web page users have access to the Virtual References Librarian Service through chat or e-mail and also to Ref Works a web based bibliographic utility.

Some librarians participate as facilitators in Problem Based Learning (PBL) Seminars. This has been an excellent experience that has contributed to strengthening the bonds between the library and faculty members and students. PBL has also increase the use of the collection. There is a liaison librarian for each School on Campus who is a member of the school's curriculum committee. This promotes faculty participation in the selection of information resources, maintains the faculty informed of new services and library resources, and keeps the library aware of new courses and trends in the school.

XXIII. Counseling Services:

Counseling services of the School of Health Professions are assigned to the Office of Student Affairs. Students will receive assistance to identify and deal with situations that limit their personal development and academic accomplishment. The services are directed to all the student population. The program coordinates different educational activities during the academic year such as: workshops, guidance and conferences related to personal, academic, and career aspects, leadership development, managing stress, resume preparation, effective time management, and guidance on undergraduate and graduate studies.

The Counseling Office is located in the basement of the School of Pharmacy and services are offered between the hours of 8:00 a. m. and 4:00 p.m., Hours may be agreed upon student's need, if necessary.

XXIV. Educational Technology

Students of the Program may use the Informatics and Educational Resources Office (OIRE in Spanish) of the School of Health Professions. This office coordinates and integrates all information system, communication infrastructure, educational resources, trainings, and distance education aspects. It has a variety of computers (PC) for students use. It is located on the fifth floor of the School of Pharmacy. Service hours are from Monday to Thursday from 7:30 a.m. to 6:30 p.m. and Fridays from 7:00 a.m. to 4:30 p.m. In addition, the University of Puerto Rico adopted the "Google Application for Education" platform as the base for students e-mail services. Likewise, among the services that OIRE also offers are support to faculty members and students in the use of Blackboard Platform for the courses offered on line such as: TERA-1015 Introduction to Radiologic Techniques and TERA-1035 Radiographic Exposures.

XV. Classrooms and Laboratory

The program provides a classroom /laboratory equipped with one radiographic unit, portable units, radiographic accessories, and other educational resources.

The laboratory is for the students of the program use. It will be available for examinations, classes or conferences. The classroom/laboratory and/or educational accessories will be lend to those students who become responsible for the facilities, accessories, equipment and their classmates discipline while they are using them. They will have to request for the Laboratory's use by means of an authorization from the Director of the Program or Clinical Coordinator.

Materials, equipment, and accessories lent to students in good conditions and which are returned in poor conditions or damaged, and/or are not returned within the established period of time, will be sufficient reason for not authorizing

registration or graduation to the student until the costs of such items are compensated to the institution.

XXVI. Student Services

a. Financial Aid

Students of the Radiological Technology Program as regular students of the university system have the right to request financial aid. This office provides aid to those regular students whose income is not sufficient to cover the expenses of their education and who are qualified to receive federal aids.

There are three (3) types of financial aid:

- a. Scholarships
- b. Study and work
- c. Loans

The following are some of the aids that students of the program, if qualified, may receive from the Medical Sciences Campus: registration, books, equipment, lodging, personal expenses, among others; some of the requirements are:

- a. To be admitted to one of the study programs of the School of Health Professions (S.H.P.), Medical Sciences Campus.
- b. To abide by the Academic Advancement Rule [Norma de Progreso Académico] established by the Medical Sciences Campus.
- c. To be eligible to receive financial aid, as determined by the Financial Aid Office.
- d. To be a full time student with no less than 12 credits per semester, in the case of students of Associate and Bachelor's Degree.
- e. Students who participate in a part time study program may be benefitted from scholarships and some type of loans.
- f. To be a resident of the United States and a permanent resident of Puerto Rico or have the intention to become.
- g. To abide by the rules and laws of the Institution.

h. To be able to offer services, if required.

XXVII. Health Services

The office that provides medical services to students of the program is located on the third floor of the main building of the Medical Sciences Campus. The hours vary Monday thru Friday from 7:30 a.m. to 4:30 p.m.

Emergency services are offered or referred to at the Emergency Room of the Puerto Rico Medical Center (Administration of Medical Services of Puerto Rico, ASEM) where the necessary services will be provided. Students' health clinics are at the Faculty Practice Plan (Clínica Intramural) located on the 5th floor of the main building of the Medical Sciences Campus.

XXVII. Clinical Facilities

The Technology Radiologic Program uses as clinical affiliations a variety of public and private medical institutions, where it is expected that the student can develop the skills and necessary experiences to accomplish the goals of the program. Among the clinical facilities that the Radiologic Technology Program uses the following can be mentioned: the Administration of Medical Services of P.R. (ASEM), University Pediatric Hospital, Hospital of the Capital, Industrial Hospital, Oncologic Hospital and the Cardiovascular Center of Puerto Rico and the Caribbean.

The following are among the private sector affiliations we count upon: Hospital Auxilio Mutuo, Presbyterian Hospital, Menonita General Hospital, among others.

The Program counts upon the Veteran's Hospital located in Río Piedras. The program can increase the clinical affiliations according to the necessities and changes that may arise in the future.

XXIX. Wellness and Quality of Life Office

The Wellness and Quality of Life Office develops programs to promote a healthy and safe environment that allows the achievement of total welfare by the

university community. It has a leadership role in the prevention of drug and alcohol abuse, violence, sexually transmitted diseases, sexual assault, and sexual harassment. It collaborates actively in the implementation of the campus safety policy to ensure compliance with federal regulations and the Jeanne Clery Act. In association with the Puerto Rico Traffic Safety Commission, it directs a federal program known as FIESTA XIV, whose mission is to prevent student driving while under the influence of alcohol and to promote secure and responsible behavior on the road. The Wellness Office has an advisory committee composed of representatives of the six schools who collaborate in promotional efforts and participate in policy and standards revisions. The office coordinates special events such as educational fairs, community service, dance lessons, and special interest workshops.

XXX. Social and Cultural Services

Students of the Program may participate in cultural and social activities provided to them by the Deanship of Student Affairs of the School of Health Professions. They may participate as well in the activities offered by the Office of Student Affairs of the Medical Sciences Campus such as concerts, conferences, dances, films and variety shows, among others.

The Radiologic Technology Program organizes exhibitions that are offered during the Open House, Week of the Health Related Professions, Exploring Health Professions Seminar, and Interuniversity Competitions in Radiologic Sciences, Radiologic Technologist Week celebration, and sport activities. These are arranged mainly by students. In addition, other educational and social activities are organized.

Students have the right to use other services like the gymnasium, cafeteria (several), student organizations, and student representation.

XXXI. Due Process

The due process to solve student grievances is as follows:

Due process procedures:

Students at the University of Puerto Rico, Medical Sciences Campus have the right to:

- a. fairly academic evaluations,
- b. study in an environment that is fair and free of prejudice,
- c. an opportunity to be heard and to state their complaints and grievances to institutional officials,
- d. a fair resolution of their grievances and complaints.

Grievances and complaints refers to a student writing submission of alleged violations to institutional policies and procedures including but not limited to, academic and administrative issues. The MSC recognizes the academic rights of students and has established reasonable procedures to fairly address student complaints and grievances. This due process is described by the MSC Administrative Board Certification #147 2015-16 (**See Appendix IV**). To facilitate understanding of the process, a flow diagram has been developed which shows the step-by step process from the time a complaint is filed until it is solved. See Appendix 1.6.A. These procedures are intended to achieve equitable solutions with due regard for the rights of all parties involved. Students file the grievance or complaint at the Student Affairs Office of the School using the proper form.

Additionally, a student can also file a complaint at the programs level. The procedure to follow is:

1. When a student officially enrolled in the program perceives that his/her rights are being violated by an institutional official or employee or another students, he/she may submit in writing a complaint in the office of the Program Director within a period of 30 days after the occurrence of the event. A clear and concise description of the events that support the allegations must be included.
2. The program director must try to solve the complaint by trying to reach to an agreement between the parties involved in the conflict.
3. The programa director has a time frame of seven days to evaluate the issue and provide formal decision.
4. The decision will be written and sent to all parties involved in the process.
5. If the conflict is not solved, the program Director must refer the issue to the Undergraduate Department Director, to the Student Affairs Assistant Dean or to the Associate Dean of Academic Affairs. Then the grievances is followed as established in the Administrative Board Certification #147.
6. If the student is no satisfied with the decision, have seven additional days to submit a formal appellation to the Dean of Academic Affairs, who in turn will continue the process and the final decision will be in charge of the Medical Sciences Chancellor.
7. No formal program grievances have been received or process during the last 10 years. No formal grievance or complaint have jeopardized the program's ability to meet its mission nor goals.

XXXII. Radiation Safety Policy:

The first fatality from a radiation exposure was Clarence Dally, Thomas Edison's assistant. As a result of this event, many equipment, procedures and techniques were developed to control the radiation levels and reduced the overexposure of the personnel, patients and general public.

The use of radiologic equipment for medical diagnostics put the patients, personnel, and public at risk. The purpose of the security measures against the radiation is to keep the normal levels. The security measure against radiation is designed to reduce the exposure levels during the operation and handling of radiological equipment in radiological procedures.

To reduce the radiologic exposure we must follow the three cardinal's fundamental principles of radiologic protection that are: Time, Distance and Shield. For that reason, we practice a basic radiation protection concept known as ALARA (acronym for "As Low As Reasonably Achievable").

Now a days, the National Council on Radiation Protection (NCRP), frequently reviews the recommended doses. The doses limits that are recommended for the personnel that works with radiologic equipment are 50mSv/year (5,000mrem/year). The whole body dose limit (DL) is 10mSv (1,000rem) yearly. During pregnancy, is 5mSv (500rem), but should not exceed of 0.5mSv (50mrem).

Guidelines:

1. The student should follow the ALARA concept properly, every time to prevent unnecessary repetitions.
2. The student must ask about the possibility of Pregnancy to all patient of reproduction age.

3. During the radiologic procedure the student should secure all the access doors of the x rays units.
4. If necessary the presence of a companion of the patient during the course of a procedure will require that protection is placed.
5. The student should use all the security equipment (lead gloves, aprons, and thyroids shields) to prevent unnecessary radiologic exposure.
6. Should use collimators, diaphragms and cones to restrict the X ray beam just to the main area.
7. The student should protect himself from the radiation exposure in the control room, observing the patient through the lead glass.
8. The student is not allowed to hold or grab the image receptor or the patient during the radiation exposure and will use the immobilization equipment properly.
9. The student will use a dosimeter to indicate and evaluate the radiologic exposure dose levels during the radiologic studies performed.
10. The student is not allowed to surpass the occupational radiation exposure dose limits.
11. In the student suspected pregnancy, should notify to the Clinical Coordinator/Program Director, to follow the Pregnancy Policies.

XXXIII. MRI Safety Policy

Magnetic Resonance Imaging (MRI) is a modality within the Radiology Department that utilizes a very strong magnetic field that can be harmful to an individual entering the MR room if they have certain metallic, electronic, magnetic, or mechanical objects in their body.

The students of our program can have access to the magnetic resonance area so they must complete a safety form before starting their clinical practice. If a student indicates they have aneurysm clips, stents, neuro transmitters, or any metallic object within their body, they will be appropriately counseled and must not enter the MRI suite.

Be advised, the MR system magnet is always on, ALWAYS.

Name: _____ Date: _____

1. Have you had prior surgery or an operation of any kind?

No Yes

If yes, please indicate date and type of surgery: Date _____

Type of surgery _____

2. Please indicate if you have any of the following:

- | | |
|--|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Aneurysm clip(s) |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Cardiac pacemaker |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Electronic implant or device |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Magnetically-activated implant or device |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Neurostimulation system |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Spinal cord stimulator |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Cochlear implant or implanted hearing aid |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Insulin or infusion pump |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Implanted drug infusion device |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | Any type of prosthesis or implant |

- Yes No Artificial or prosthetic limb
- Yes No Any metallic fragment or foreign body
- Yes No Any external or internal metallic object
- Yes No Hearing aid (*You have to remove before entering the MR room*)
- Yes No Other implant_____

Remember: Please remove all readily removable metallic personal belongings and devices including watches, jewelry, cell phones, credit cards, body piercings (if removable), metallic drug delivery patches, cosmetics containing metallic particles (such as eye make-up), and clothing items which may contain metallic fasteners, hooks, zippers, loose metallic components or metallic threads.

I have the opportunity to ask questions and they have been answered to my satisfaction. I attest that all the above information is true.

Student Signature

Clinical Supervisor Signature

Note: The original copy of this document will be placed in the student's file.

XXXIII. Repeated Images Policy:

To monitor the repeat image policy the student must complete the form for all images repeated. This form will stay in the Clinical Practice Manual and will be reviewed by the faculty for repeat. Reason for repeat:

Repeat Examination	Over-exposed	Under-exposed	Motion	Positioning	Artifacts	Off Center	Total
Finger							
Hand							
Wrist							
Forearm							
Elbow							
Humerus							
Shoulder							
Foot							
Ankle							
Calcaneus							
Leg							
Knee							
Patella							
Femur							
Chest							
Ribs							
Shoulder							
C-spine							

Repeat Examination	Over-exposed	Under-exposed	Motion	Positioning	Artifacts	Off Center	Total
T-spine							
L-spine							
Sacrum							
Coccyx							
Abdomen							
Pelvis							
Hips							
Skull							
Facial Bone							
Sinuses							
BS							
UGIS							
SB							
BE							
IVP							
Cystogram							
Arthogram							
Other							
Total							

Comments: _____

 Students Signature

 Supervisor Signature

 Clinical Supervisor Signature (Faculty)
 Signature

 Clinical Coordinator

Reviewed by: Radiologic Technology Faculty/ May, 2016
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