DEPARTMENT OF RADIATION ONCOLOGY

MEDICAL DOSIMETRY PROGRAM

STUDENT HANDBOOK

2025 - 2026

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THE PROFESSION

A medical dosimetrist is a member of the radiation oncology team who has knowledge of the overall characteristics and clinical relevance of radiation oncology treatment and planning equipment, is cognizant of procedures commonly used in brachytherapy and has the education and expertise necessary to generate radiation dose distributions and dose calculations. It is imperative that medical dosimetrists actively and openly communicate with radiation oncologists, medical physicists, radiation therapists, and nurses, among other members of the team, to enable and ensure that appropriate transfer of information occurs. A medical dosimetrist must demonstrate an understanding of topics including, but not limited to, cancer, radiation biology, radiation therapy techniques, radiation oncology physics, equipment technology, radiation safety and protection, anatomy, physiology, mathematics, and psychosocial aspects of cancer.

STANDARD ONE: INTEGRITY

The Program has been established on the basis of high ethical standard in relation to students, faculty, and staff. In doing so, the Program has created mechanisms to ensure the pursuit of fair and equitable academic practices and the fair treatment of, and respect for, students, faculty and staff.

Mission statement:

To provide students with the necessary knowledge and training required by the Profession so that on completion of the program they will be able to function independently, confidently and effectively as an entry-level medical dosimetrist in a clinical setting with minimal outside assistance.

Goals:

Goal – Students will understand didactic dosimetry knowledge.
Student Learning Outcome: Students will demonstrate a firm understanding of radiation Physics and radiation biology.
Graduates will express knowledge of medical dosimetry concepts competently.

Goal – Students will develop critical thinking skills
Student Learning Outcome: Students will analyze and demonstrate sound problem solving techniques in correcting unacceptable treatment plans.
Graduates will be adequately prepared in critical-thinking and problem solving.

Goal - Students will demonstrate clinical competence in medical dosimetry.

Student Learning Outcome: Students will develop a treatment plan that provides target Coverage and normal tissues sparing.

Graduates will indicate that they were prepared to perform medical procedures competently.

Goal - Students will demonstrate communication skills.

Student Learning Outcome: Students will demonstrate effective oral communication skills

Students will demonstrate effective written communication skills

Goal – Students will gain professional development and growth skill in medical dosimetry.

Student Learning Outcome: Students will demonstrate the importance of continued Professional development

Students will understand their professional obligation to medical dosimetry profession.

Program policies:

All policies are made or amended by the advisory committee with a two-thirds majority vote. The faculty and clinical preceptors are given a copy of the program policies for review annually. A copy of the program policies is given to the students during orientation. The program director explains these policies to the students and students must sign the Student Agreement Form—see Appendix A—within the Student Handbook.

1. **STUDENT AGREEMENT** - Upon admission into the program, students must have read program policies concerning school regulations and have signed the student agreement contract.

2. **CONDUCT** - Students, faculty, and staff shall confirm a commitment to professional standards in their work and in their interactions with other students, faculty, and staff. A commitment shall be made to maintain the highest standards of integrity and honesty in their work and adherence to ethical and legal standards. Students, faculty, and staff shall not treat fellow students, faculty, and staff unfairly or harass them because of their race, color, national origin, sex, religion, disability, age, sexual orientation, genetic information, marital status, and/or parental status.

3. **DRESS POLICY -** Students are not required to wear uniforms. The overall appearance of personnel in the Department of Radiation Oncology must reflect professional standards and departmental attitude. Professional attire is required at all clinical sites. All members of the staff must have a clean, professional appearance. Men should wear collared shirts, ties optional, slacks and closed toe shoes. Women should wear blouse/skirt or dress (at least knee length) or Blouse/slacks (ankle length). No sandals, jeans, t-shirts, or shorts are allowed and no open toe shoes. Halters, leotard tops, T-shirts,

tube tops, shorts, sweatshirts, sweat pants, and excessive ornamental earrings, necklaces and bracelets are not permitted; simple rings, earrings and necklaces are appropriate. Hair longer than shoulder length must be tied back during direct patient care. Hats, large colorful hair ornaments and headbands worn around the forehead are not allowed. Head coverings for ethnic, or religious reasons are permitted. Students ***are encouraged*** to wear lab coats at all times. Mays Cancer Center does not provide lab coats; the maintenance of lab coats is the responsibility of the student. Students are required to maintain high standards of personal hygiene, including clean hair, nails, clothes, polished shoes, etc. University Identification cards and radiation badges must be worn in clinical area at all times.

4. **ABSENCES** - When absences occur, students are responsible for contacting the clinical director by 8:00 AM. A doctor's excuse must be presented after three days absence. All absences must be documented on an Absence from Dosimetry School Form.

    4.1 VA students will have attendance monitored until the time the student drops, graduates, or completes the program. Unsatisfactory attendance will be reported to VSFA within 15 days even if the VA student has completed the required number of hours and no refund is due the student and/or refund sources. Therefore, the attendance policy (20% of the total program and/or being absent five [5] consecutive days) will apply throughout the student's stay in school. All violations of the attendance policy will be reported to VSFA on VA Form 22-1999b within 21 days at such time the student exceeds the allowed number of absences.

5. **CLINICAL PRACTICE** - Clinical hours must be completed before graduation from the program.

6. **DIRECT PATIENT CONTACT** - Students shall, at all times, be under direct supervision of a credentialed practitioner during all direct patient contact procedures. At no time, shall the student proceed with a procedure without the appropriate trained staff. Additionally, all direct patient contact tasks must be approved by the mentoring credentialed practitioner.

7. **CLASS** - Students are responsible for missed class notes and lectures by contacting the course instructor. Any missed examinations are due the next morning on the first day back from absence at 8:00 AM. This hour will be subtracted from the clinical hours.

8. **PROGRAM HOURS** - Students abide by semester schedule to ensure all clinical and didactic hours are completed in a timely manner. No student will be required to complete more than 10 clinical hours in any one day. In addition, clinical and scheduled didactic hours may not exceed 40 hours per week. Hours exceeding these limitations must be voluntary. Holiday calendar in tab 6.

9. **TEXTBOOKS** - Students are responsible for purchasing all assigned textbooks.

10. **PERSONAL PHONE CALLS AND MAIL** - Students should restrict the use of the center's address for personal mail and personal phone calls. In addition, no personal phone calls, text messages or headphone devices—i.e. AirPods—are to be taken or used in the clinic. Although Microsoft Teams messaging may be used to communicate in clinic, ensure the privilege is not abused.

11. **STUDENT EMPLOYMENT**- There is no objection to student employment outside of the cancer center, as long as the student is able to effectively meet class and clinic schedules and performance standards of the program. Students cannot be employed at the MAYS CANCER CENTER during regular scheduled clinical hours.

12. **PARKING** - Students are required to park in designated parking areas at all times. Parking permits may be purchased at UT Police.

13. **PROFESSIONAL LIABILITY COVERAGE** - No liability coverage is extended to students in the training program while under its supervision. There is no health insurance available to the student.

14. **TUITION FEES** - Annual program tuition and fees are $ 18,000. Half of the tuition is due on the first working day of September and February, no exceptions. Tuition is non-refundable.

15. **FINANCIAL AID/SCHOLARSHIPS** - The medical dosimetry program does not qualify for federally sponsored or subsidized loans. Private education loans may be available through some banks. Merit-based scholarships, sponsored by the AAMD, are also available to students at the AAMD Foundation Scholarship Award website.

16. **GRADING SYSTEM** - Students receive grades at the end of each semester and a final transcript is kept on file. Students must maintain a 70% average in all courses to receive credit. No incomplete grades are awarded, if a course is not completed, the student is dismissed from the program. The grading scale is as follows:

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

Students are counseled twice per semester. If special help or tutoring is needed, it will be arranged at that time.

17. **STUDENT PREGNANCY**- The declaration of pregnant worker status is voluntary and is administered by the Radiation Safety Officer. In the event of suspected or confirmed pregnancy, the student should report to the Program Director as soon as possible. Notice of disclosure is strictly voluntary; however, it is in the student's best interest due to the increased radiosensitivity of the fetus, particularly in the period from 10 to 40 days post

conception. To formally declare pregnancy, the student must complete a "**Declaration of Pregnancy Form**" and submit it to the office of the RSO.

Once disclosed, federal regulations governing the actions of a pregnant radiation worker will be enforced. Pregnancy will not affect a student's enrollment in courses without a clinical component. However, in order to fulfill requirements in clinical education and keep radiation exposures as low as reasonably achievable during the entire pregnancy, the student will be offered the following alternatives:

- Withdrawal from the program immediately. The student may resume studies after the birth of their child, on consultation with Program director.
- Withdrawal from all clinical course work and continue with the didactic portion of the program for the duration of the pregnancy. The student will then satisfy clinical education requirements after the birth of their child.
- Continue the program without modification and with full knowledge of the exposure hazard to the fetus. In this circumstance, the student will indicate in writing to the Program director and Radiation Safety Officer their intention to continue.

If, at any time, the student decides to revoke their declaration of pregnancy, they may do so by submitting a signed and dated letter to the Radiation Safety Officer.

18. **SICK AND PERSONAL LEAVE** - Students are allowed a total of 5 absences per year. Personal leave days must be approved by the Clinical Director with a ONE week notice. Absences from either clinic or class count against the 5-day limit.

19. **JOB INTERVIEW LEAVE** - Students are allowed up to 3 days (in addition to the 5 sick/personal leave days) for job interviews. Days are solely granted on proof of interview. Interview leave days cannot be converted to sick/personal leave.

20. **LEAVE OF ABSENCE/WITHDRAWAL** - Students may request leave of absence under extenuating circumstances. The Dosimetry School Committee will review each case, and the student will be advised as to what remedial action will be required on his/her behalf. Students may withdrawal from the program at any time. Tuition is non-refundable.

21. **BEREAVEMENT LEAVE** - Students are entitled to one week leave upon the death of a spouse, parent, grandparent, child, or sibling. Clinical training hours missed will need to be made up within 30 days of their return.

22. **VACATION** - All students receive two weeks of vacation at Christmas and one week of vacation at Spring Break—in accordance with University Holiday Schedule. University holiday schedule available online at Registrar Office website.

23. **TRANSFER CREDITS -** The Medical Dosimetry Program does not accept transfer credits from other dosimetry programs.

24. **JRCERT ACCREDITATION -** The Medical Dosimetry Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). To keep the accreditation, the school must meet certain standards as outlined in the JRCERT Standards-MD document. Any complaint concerning non-compliance with these standards shall be filed as a formal complaint under the Appeal process outlined in this document.

25. **JRCERT STANDARDS -** The Medical Dosimetry Program follows the standards set forth by JRCERT. They are available at the following website: http://www.jrcert.org/programs-faculty/jrcert-standards/

26. **DISMISSAL** - A student may be dismissed from the program for any of the reasons listed below:

- Failure to respect confidential nature of patient information, records, and conditions.
- Irregular attendance or excessive tardiness.
- Failure to maintain a 3.0 in any semester.
- Neglect of duty.
- Insubordination, including failure to follow directions and instructions.
- Dishonesty.
- Soliciting or accepting tips or gratuities.
- Willful destruction of Mays Cancer Center property.
- Intoxication or having intoxicants on the premises.
- Substance abuse.
- Habits or state of health endangering students, patients, or co-workers.
- Falsification or misinterpretation of any school record, report or personal record.
- Poor clinical performance documented over three consecutive months by three different dosimetrists.
- Failure to pay tuition by due dates (Sept. 1 and Feb. 1).

27. **DISCIPLINARY POLICIES** - Violation of these regulations will result in the following action:

- ***FIRST VIOLATION*** – written documentation of advice and counseling as appropriate by the faculty or clinical instructor and the program director.
- ***SECOND VIOLATION*** - the student will receive in writing a letter stating that he/she has been warned that if the violation is repeated or situation is not corrected, the student will be subject to dismissal from the program.
- ***THIRD VIOLATION*** - the student will receive in writing a letter stating that he/she has been dismissed from the program.

28. **STUDENT COMPLAINT/APPEALS** A student with a complaint regarding a decision made by a school official shall first try to resolve the situation with the school official involved. If the situation is not resolved or the student is uncomfortable with bringing the situation to the school official, the following procedures should be followed. If the

situation is not satisfactorily resolved at the first level, the student can escalate the complaint to the next level.

- Level 1: The student shall file a formal complaint with the Program Director. The Program Director has one week to respond, review and take action on the complaint.
- Level 2: The student can address the complaint to the Director of the Mays Cancer Center, which then has two weeks to meet and take action on the complaint taking into consideration the result of any actions taken on the issue thus far. This decision is final.

Every attempt will be made to resolve valid complaints within a reasonable time period. If one finds that the program is in noncompliance with JRCERT standards, the student may contact them as follows:

Joint Review Committee on Education in Radiologic Technology
20 North Wacker Drive, Suite 2850
Chicago, IL 60606-3182
Phone: (312) 704-5300
Fax: (312) 704-5304
E-MAIL: JRCERT@MAIL.IDT.NET

Equal Opportunity

The Mays Cancer Center at the UT Health San Antonio is actively committed to providing equal educational and employment opportunity in all of its programs. It is the goal of the University to assure that women and minorities are equitably represented among the faculty, staff and administration of the University. All employment policies and activities of the UT Health San Antonio shall be consistent with federal and state laws, regulations, and executive orders on nondiscrimination on the basis of race, color, religion, age, ancestry or national origin, sex, sexual orientation, handicap, marital status and veteran status. Sexual harassment, as a form of sex discrimination, is prohibited among the work force of the University.

Security and Confidentiality of Student Records

The privacy and confidentiality of student records is protected by law and the University will not disclose your SSN without your consent for any other purposes except as allowed by law. In accordance with Section 559.003(a) of the Texas Government Code, with few exceptions, the individual is entitled on request to be informed about the information that the institution collects about the individual.

The program abides by the Family Educational Right to Privacy Act FERPA (20 USC S. 1232g). FERPA is federal legislation that governs the privacy of student records. Under this legislation, the Program will maintain all students' records private and will provide students the right to inspect records about themselves that are maintained by the Program.

Student Admission Process Policy

The selection of all students will be made equitable and through a Dosimetry Program Admission Committee composed of the directors, clinical preceptors, and faculty.

Admission Requirements

Admission is limited, but not restricted to individuals with

- Minimum GPA of 3.0 on a 4.0 scale
- Minimum mean GPA of 3.0 in science and mathematics courses

Applicants must also meet one of the following criteria:

- Individuals who hold a bachelor's degree—preferably in the following disciplines: radiation therapy, physical science (biology, chemistry, or physics), math or engineering

The following criteria are required prior to start of program:

- Mathematics
  - Algebra and pre-calculus/calculus I
- Physics
  - Two semesters of physics
- Course(s) of human anatomy (whole body)
- Course of medical terminology

The following criteria are considered but not required:

- Internship/shadowing in dosimetry

Admission Policy

It is the policy of the school and its sponsor to admit students without regard to race, sex, religion, national origin, or handicap, unless that handicap would prevent the student from fulfilling their clinical requirements.

Selection Process

- Applications will be due March 1. Notification for admission will be delivered prior to April 1.
- Admission data will be kept on file for five years in the department of radiation oncology. All federal and state nondiscriminatory laws will be observed.
- A personal telephone interview or virtual interview from one or more of the committee members may be conducted prior to acceptance.

STANDARD TWO: RESOURCES

Sponsoring Institution

The program is a University hospital-based program sponsored by the UT Health San Antonio, School of Medicine, Department of Radiation Oncology. The Department of Radiation Oncology is located within the Mays Cancer Center, 7979 Wurzbach Rd. MC7889, San Antonio, Texas 78229.

All human resource and facility support for this Program is provided by the University of Texas Health Science Center San Antonio. Currently, the Program's expenditure is budgeted through the Department of Radiation Oncology.

Department Interim Chairman	Chul Ha, MD
Administrator	Travis Corwin, MHA, MBA
Program Director	Nikos Papanikolaou, PhD, MBA, Chief Medical Physicist, Professor
Manager	Irma Corona, PhD, CMD, ARRT(N)
Medical Advisor	TBD
Educational Director	Neil Kirby, PhD, DABR, Associate Professor
Clinical Director	Irma Corona, PhD

Didactic Instructional Staff and Clinical Preceptors

Nikos Papanikolaou, PhD, MBA, DABR, Professor
Neil Kirby, PhD, DABR, Assistant Professor
Karl Rasmussen, PhD, DABR, Associate Professor
Holly Paschal, PhD, Assistant Professor
Nema Bassiri, PhD, Assistant Professor
Doug Soltesz, PhD, Assistant Professor
Irma Corona, PhD, CMD, ARRT (N)
John Gonzales, CMD
Judith Schell, MS, CMD
Oscar Orozco, BS, CMD, R.T. (R) (CT)
Bethany Kramer, BS, CMD
Meagan Rankin, BS, CMD

Medical Faculty Instructors

Chul Soo Ha, MD, Professor
Neil Newman, MD, Assistant Professor
Christian Kluwe, MD, Associate Professor
Eva Galvan, MD, Assistant Professor
Neil Newman, MD, Assistant Professor
Shraddha "Diya" Dalwadi, MD, MBA, Assistant Professor
Gary Lewis, MD, Assistant Professor

Amy Le, MD, Assistant Professor
Joshua Asper, PA, Instructor

Administrative Staff:

Patricia Candia, Ph.D., Manager, Academic Programs
Anthony Delfin, Administrative Assistant

Role and Responsibilities of Personnel

Dosimetry School Advisory Committee

The committee is responsible for the following:

1. Overseeing and monitoring the overall performance of the Dosimetry School.
2. Overseeing and monitoring the performance of the Program Director.
3. Reviewing all applicants and determining which applicants to accept into the program.
4. Review student requests for withdrawal or leave of absence.
5. Review student appeals in cases of student dismissal or complaints.
6. Review and make decisions on student requests for scholarships, tuition reimbursement, and other student financial issues.
7. Reviewing any major policy changes that will impact the clinic, school, or center.
   The committee consists of:
   a. Program Director
   b. Department Chair
   c. Director of Medical Physics
   d. Medical Advisor
   e. Clinical Director
   f. Educational Director
   g. Course Faculty
   h. Clinical Preceptors

(Committee members may fill more than one role)

Program Director

The program director is responsible for:

1. Everyday managing and running of the dosimetry school
2. Overseeing the instruction of students including overseeing faculty and clinical instructors.
3. Overseeing the clinical director.
4. Reporting problems and concerns as necessary to the dosimetry school advisory committee.
5. Reviewing policies and procedures on a regular basis to ensure that they meet current standards.
6. Annual report to the Dosimetry School Advisory Committee on the program.
7. Monitoring and developing curriculum to ensure that the goals of the program are met.

Educational Director

The educational director reports to the program director and is responsible for:

1. Evaluation of core curriculum and student performance
2. Coordinates clinical evaluation and evaluates effectiveness
3. Correlates clinical education with didactic education
4. Cooperates with Program Director in annual review and revision of didactic and clinical course material
5. Maintains current knowledge of the discipline and educational methodologies through continuing professional development
6. Maintains current knowledge of program policies, procedures, and student progress.

Clinical Director

The clinical director reports to the program director and is responsible for:

1. Oversee clinical rotations for dosimetry students
2. Develop objectives for clinical rotations on a monthly basis
3. Ensure that dosimetrists and students understand clinical objectives
4. Track students time in clinic on a monthly basis
5. Verify that students are meeting monthly objectives
6. Responsible for evaluations of student's progress in the clinic on semester basis

Course Faculty

The course faculty report to the program director and are responsible for:

1. Overseeing the instruction of all dosimetry students for their assigned course.
2. Developing curriculum to be taught in the assigned course.
3. Ensuring that curriculum meets the standards of the JRCERT.
4. Providing the program director with a course outline of material to be taught.
5. Ensuring that topics related to their course on the MDCB test matrix are covered in the course material.
6. Evaluate student performance based on course material.

Clinical Preceptors

Clinical instructors report to the educational director and must be MDCB certified. They work with the clinical director to:

1. Ensure that students are meeting the monthly competency objectives.
2. Evaluate student performance at various times throughout the year.
3. Instruct the student in treatment planning and other dosimetric responsibilities.
4. Check and sign off on all students work during their training.

Student Resources

Students are provided access to student services and programs to assist students in achieving their academic goals while helping support and promote personal development and quality of life. UT Health San Antonio offers program relating to: Counseling Services, Student Health Center, Student Life, and Veteran Services & Financial Aid. All information can be obtained at: http://studentservices.uthscsa.edu/

Facilities

Clinical Practice Settings

All our students carry out their clinical practice and the majority of their didactic instruction at the Mays Cancer Center.

UT Health San Antonio Mays Cancer Center
7979 Wurzbach Road
San Antonio, Texas 78229
210-450-5677

The UT Health San Antonio Mays Cancer Center is an outpatient facility located in the San Antonio Medical Center area. Within the UT Health San Antonio Mays Cancer Center building, the students will have access to:

Radiation Oncology Conference Room (Grossman Plaza)
The Radiation Oncology Department conference room is used for most of the lectures. This conference room is equipped with a projector for all PC based lectures and review of all patient radiation treatment plans. There is also a blackboard available for more detailed explanations.

Mini Plaza
This conference room is equipped with a projector for all PC based lectures. There is also a whiteboard available for more detailed explanations.

Medical Dosimetry Lab
The laboratory houses students and computers for students' use which have access to treatment planning system. This room will be the primarily work area for the students when they are not in the clinic.

Equipment

Imaging modalities

- Siemens, Somatom CT Scanner
- 2 CRAD surface image scanners

Linear accelerators

- 3 Elekta VersaHD
- 1 Varian 23EX® (120 Leaf MLC)
- NovalisTx™ Stereotactic unit with robotic capabilities

Record and verify system

- Elekta Mosaiq™ Multi-Access Software

External Beam Treatment Planning

- 4-D CT Simulation
- 3-D external beam treatment planning using Philips® Pinnacle^3 treatment planning system (TPS)
- Intensity modulated radiotherapy (IMRT) and Volumetric modulated arc therapy (VMAT) planning using Pinnacle^3 TPS
- Elements from Brain Lab for multimet and spine SRS
- iPlan™ from BrainLab® for SRS and SBRT planning

Brachytherapy Treatment Planning

- High dose rate brachytherapy using the Elekta Oncentra™ TPS
- CT guided brachytherapy
- Low dose rate brachytherapy using Pinnacle^3 TPS

Special Procedures

- Stereotactic Radiotherapy/Radiosurgery
- Total body photon irradiation (TBI)
- Total skin electron irradiation (TSE)
- COMS eye plaque
- Velocity for image fusion and dose summation

In addition to the above equipment, Mays Cancer Center has numerous radiation measurement devices including ionization chambers, survey meters, etc.

Internet access

Students are each given a personal workstation with access to a treatment-planning module. Students will use and maintain this computer throughout the school year.

UT Health Library

This facility is located on the main campus. It allows the student access to the entire journal and reference books database.

STANDARD THREE: CURRICULUM AND ACADEMIC PRACTICES

In adherence to the mission statement of the Program, curriculum and academic practices are structured such that the students are provided with robust didactic training and diverse competency-based clinical training.

The length of the Program is 12 months and curriculum consists of 8 hours per day, 5 days a week, of integrated classroom and clinical instruction. The academic year is divided into 3 sequential semesters—fall, spring, and summer. The program is composed of clinical training and formal didactic lectures, research exercises, and formal classroom instruction.

The curriculum is based on the American Association of Medical Dosimetrist (AAMD) professional curriculum. In all, 1364 hours of clinical training and 396 hours of formal classroom, laboratory exercises or modules are to be completed. There will not be a distinction in training of RTT versus non-RTT students. Student will receive course grades at the completion of each semester.

Classes and clinical rotations are held within the UT Health San Antonio Cancer Center. Primary faculty for the school consists of board certified Radiation Oncologists, board certified Radiation Oncology Physicists, and certified Medical Dosimetrists.

Core Courses Schedule Overview

Course #	Course	Credit Hours	Contact/wk
DOS 100	Radiation Therapy	3	3
DOS 101	Principles of Treatment Planning I	3	3
DOS 102	Treatment Planning Practicum I	3	3
DOS 103	Whole Body Cross-sec Anatomy	3	3
DOS 200	Advanced Radiation Therapy	3	3
DOS 201	Radiation Biology	2	2
DOS 202	Treatment Planning Practicum II	3	3
DOS 203	Dosimetry Research I	2	2
DOS 204	Clinical Dosimetry Practice I	6L*	30
DOS 300	Clinical Dosimetry Practice II	7L*	35
DOS 301	Dosimetry Research II	5	5

*Note: *1 laboratory hour = 5 contact hours*

FALL

DOS 100 Radiation Therapy (3 credit hours)

The course covers simple manual central axis calculations for SSD and isocentric techniques, off-axis calculations, beam shaping and irregular fields, extended distance calculations, use of isodose curves, multiple fields, arc therapy calculations, computerized treatment planning, immobilization techniques, CT treatment planning, compensator filters.

WEEK	DATE	TOPIC
Week 1		Structure of Matter
		Completion of Chapter - QUIZ
Week 2		Nuclear Transformations
		Completion of Chapter - QUIZ
Week 3		Production of X-rays
		Completion of Chapter - QUIZ
Week 4		Clinical Radiation Generators
		Completion of Chapter - QUIZ
Week 5		Interactions of Ionizing Radiation
		Completion of Chapter - QUIZ
Week 6		Measurement of Ionizing Radiation
		Completion of Chapter - QUIZ
Week 7		Quality of X-ray Beams
		Completion of Chapter - QUIZ
Week 8		Measurement of Absorbed Dose
		Completion of Chapter - QUIZ
Week 9		Dose Distribution and Scatter Analysis
		Completion of Chapter - QUIZ
Week 10		A System of Dosimetric Calculations
		Completion of Chapter - QUIZ
Week 11		Treatment Planning I: Isodose
		Completion of Chapter - QUIZ
Week 12		Treatment Planning II
		Completion of Chapter - QUIZ
Week 13		Treatment Planning III
		Completion of Chapter - QUIZ
Week 14		Electron Beam Therapy
		HOLIDAY
Week 15		Electron Beam Therapy
		Completion of Chapter - QUIZ

DOS 101 Principles of Treatment Planning I (3 credit hours)

This course provides the student with information related to the theory and practice of radiation oncology. The students are initially rotated at various stations in radiation oncology to have an overview of the chain of processes in radiation oncology. They are then rotated in dosimetry under the supervision of a mentor (dosimetrist). The students work with the mentor on a one-to-one basis in the clinic.

No	Book Chapter	Topic
1	-	Course Intro/Mathematic Review
2	C5	Imaging Basics
3	C5/K12	Imaging in Therapy
4	C6	Simulation Principles/CT Simulation
5	C7	Immobilization Equipment
6	C7	Immobilization Equipment
7		**Exam I**
8	C8/K4	Megavoltage Equipment (Linac/Co60)
9	C8/K4	Megavoltage Equipment (MLC)
10	C9/K4	Kilovoltage Equipment
11	C10	Treatment Planning/Comp Systems
12	C11/K12	SAD/SSD setups
13	K9	Dose Distribution and Scatter Analysis
14	K10	Dose Dis – continued
15		**Exam II**
15	K10	Hand Calculations
17	K11	Gap Calculation/Inhomogeneity Corrections
18	K12	Beam Modifiers (wedges, compensators)
19	C13	Treatment Verification
20	K14	Electrons Physics
21	K14	Electrons Treatment Planning
22	K15	Brachytherapy
23		**Exam III**
24	K21	Stereotactic Radiotherapy
25	-	Hardware/Software/Networking
26	-	Ethics

DOS 102 Treatment Planning Practicum I (3 credit hours)
This course presents an in-depth study of multidisciplinary treatment of cancer patients from the clinician's viewpoint. Students are required to master concepts specific to site-specific disease including histopathology, etiologic and epidemiology factors, detection and diagnosis, tumor stage and grade, routes of metastases, dose fractionation and prognostic factors. This course is designed to approach each cancer type by anatomic system, addressing treatment factors with increasing degrees of complexity. Assigned exercises organized by treatment site and procedure type will be carried out under the direct supervision of an assigned advisor. These exercises will be simulated assignments based on anonymized real patient data.

Each practicum will begin with a lecture from a physician and brief instructions by a dosimetrist or physicist. The students will then begin to go through the planning exercises independently in an effort to become familiar with methods of treatment planning and also the planning system itself.

Upon completion, each practicum will be evaluated, graded, and signed off by the instructor.

	Title
1	Metastatic Brain
2	Spine
3	Breast
4	Gynecology
5	Esophagus
6	Brain Primary
7	Prostate
8	Lung

DOS 103 Whole Body Cross-Sectional Anatomy (3 credit hours)
This course provides an introduction to cross-sectional anatomy and is aimed at familiarizing students with whole body anatomy. Additionally, a key emphasis will be placed on understanding the radiation dose and volume tolerances and toxicities associated with organs. The objective of the course is to teach students to identify cross-sectional anatomy in sagittal, coronal, and axial planes, recognize normal anatomy, classify various sections of anatomical regions, and describe anatomical structural relationships.

Week.	Topic
1	Cranial - CT
2	Cranial - MR
3	Quiz
4	H&N - CT
5	H&N - MR
6	Quiz
7	Thorax – CT
8	Thorax - MR\PET
9	Quiz
10	Abdomen – CT
11	Abdomen – MR
12	Quiz
13	Pelvis – CT
14	Pelvis – MR
15	Quiz
16	Extremities – CT

SPRING

DOS 200 Advanced Radiation Therapy (3 credit hours)
The course is a continuation of introductory radiation therapy physics and is primarily focused on advanced topics. In particular, the course will focus on topics associated with brachytherapy, medical linear accelerating shielding principles, and special techniques used in radiation therapy such as total body radiotherapy, total skin electron irradiation, and stereotactic radiotherapy.

- Brachytherapy: Radiobiological and dosimetric rationale
- Brachytherapy: Sources: construction, characterization, calibration
- Brachytherapy: Dose calculation methods, implant properties and descriptors
- Brachytherapy: Imaging in brachytherapy, source localization methods
- Brachytherapy: Historical implant design and calculation, Patterson / Parker, Paris, Quimby
- Brachytherapy: Gynecological implants, the Manchester system and ICRU 38
- Brachytherapy: Prostate implants, history, techniques, planning and evaluation, results
- Brachytherapy: HDR and PDR, techniques, planning and delivery, results
- Brachytherapy: Regulatory, safety and quality assurance issues
- Brachytherapy: The future of brachytherapy, computer design, remote application, imaging, new isotopes
- Exam 1
- Shielding: Historical background, the shielding problem, personnel exposure
- Shielding: Conventional shield design, calculation methods, barrier materials
- Shielding: Conventional maze design
- Shielding: Photoneutron production, neutron shielding materials
- Shielding: Maze and door calculations for high energy accelerators
- Shielding: Composite shields, patient neutron dose
- Shielding: Skyshine, room penetrations, ozone production, activation products
- Shielding: Simulator, HDR and brachytherapy rooms
- Shielding: Reports and room surveys / shielding evaluation
- Exam 2
- Total Skin Electrons
- Total Body Photons
- Sterotactic Radiosurgery
- IMRT and optimization
- Tomotherapy
- Radiobiological models and evaluations
- Hyperthermia
- Exam 3

DOS 201 Radiation Biology (2 credit hours)

The course provides basic instruction in radiation biology and the response of biological systems to ionizing radiation.

No	Topic	Reading
1	Interaction of radiation with matter: physical chemical, biological	Chapter 1
2	DNA strand breaks and Chromosomal aberrations	Chapter 2
3	Cell survival curves	Chapter 3
4	Cell cycle and Oxygen Effect	Chapter 4, 6
5	Repair, LET and RBE	Chapter 5 ,7
6	Acute Effects of Total body irradiation	Chapter 8
7	Radiation Protectors and sensitizers	Chapter 9, 25
8	Radiation carcinogenesis and hereditary effects	Chapter 10
9	Review	
10	Midterm	
11	Effect of radiation on the embryo	Chapter 12
12	Clinical Response to normal tissue	Chapter 19
13	Time dose and Fractionation in RT, Tumor Kinetics	Chapter 21 22
14	Application of the LQ model	Notes
15	Radiation protection	Chapter 15
16	Alternative radiation modalities	Chapter 24
17	Hyperthermia	Chapter 28
18	Review	
19	Final	

DOS 202 Treatment Planning Practicum II (3 credit hours)
This course is a continuation of DOS 102. It presents an in-depth study of multidisciplinary treatment of cancer patients from the clinician's viewpoint. Students are required to master concepts specific to site-specific disease including histopathology, etiologic and epidemiology factors, detection and diagnosis, tumor stage and grade, routes of metastases, dose fractionation and prognostic factors. This course is designed to approach each cancer type by anatomic system, addressing treatment factors with increasing degrees of complexity. Assigned exercises organized by treatment site and procedure type will be carried out under the direct supervision of an assigned advisor. These will be both simulated and real case assignments.

	Title
1	Brain Primary – IMRT
2	Lung – IMRT
3	Breast – IMRT
4	Gynecology – IMRT
5	Head and Neck – IMRT
6	Prostate – IMRT
7	SRS – Brain
8	SBRT (Lung/Liver)

DOS 203 Dosimetry Research I (2 credit hours)
The aim of this course is to promote critical thinking and problem-solving skills amongst the students. It is also the intent of this course for students to refer to current literature to keep abreast of current advancements in the profession.

Before completion of the medical dosimetry program, each student is required to complete a special project in a well-defined area of radiation therapy. The student will be given the opportunity to select their own project from a list of topics, under the guidance of faculty members, in an area of particular interest to the student. The project will also be submitted as an abstract to a nation conference—i.e. AAMD annual meeting. The final project will be a written report in the form of a publication in a peer-reviewed journal. The project will also be presented as an oral presentation at Journal Club during the summer semester.

ASSIGNMENT	DATE
Turn in topic for project	
Turn in abstract and outline of project	
Initiate research data collection	
Submit abstract	

DOS 204 Clinical Dosimetry Practice I (6 laboratory hours)
The aim of this course is to expose students to a clinical dosimetry environment. The goals of the course are to promote critical thinking and problem-solving skills with regards to treatment planning, understand the diversity of dosimetry, promote communication skills amongst colleagues, and improve time management skills. In addition, students will obtain clinical experience.

Competency	**Preceptor**	***Score (<20)***
Brain: Conventional whole brain - two field (open)		
Conventional whole brain - two field (control points)		
Spine: Conventional AP/PA		
Pelvis : Conventional Whole Pelvis		
Breast: Intact breast, Partial breast, & chest wall		
Tangential fields - 2 fields		
Mono isocenter or Dual iso - 3 fields		
Dual isocenter - 3 fields		
Accelerated Partial Breast (APBI)		
Lung: Conventional AP/PA or conformal		
Head & Neck: Conventional Larynx		
Electrons: Cranial/Facial		
Breast boost		
Rectum: Conventional Prone or Supine		
Abdomen/Flank: Conventional/3D Conformal		
Extremities: elbow, ribs, etc.		
Sim & Start: (Whole brain, HO, Spine, etc.)		

SUMMER

DOS 300 Clinical Dosimetry Practice II (7 laboratory hours)
This course is a continuation of DOS 204 and enhances the goals set forth in DOS 204. More specifically, the course encourages students to work independently and promotes autonomous, supervised clinical practice.

Competency	**Preceptor**	***Score (<20)***
Brain: IMRT – Fix Field		
IMRT - VMAT		
Spine: IMRT – VMAT		
Pelvis: IMRT – Fix Field		
IMRT – VMAT		
Lung : IMRT – Fix Field		
IMRT - VMAT		
Cranio-Spinal: VMAT - IMRT		
Head & Neck: IMRT – Fix Field		
IMRT – VMAT		
Intact Prostate: IMRT – Fix Field		
IMRT – VMAT		
Nodal Prostate: VMAT		
Recto-Anal: VMAT		
Abdomen: IMRT – Fix Field		
IMRT – VMAT		
SBRT: Liver – IMRT		
Lung – IMRT		
Para-Aortic: IMRT or VMAT		
Sarcoma: VMAT or IMRT		
Breast: VMAT		

DOS 301 Dosimetry Research II (5 credit hours)
Before completion of the medical dosimetry program, each student is required to complete a special project in a well-defined area of radiation therapy. The student will choose his/her own project from a list of topics, under the guidance of faculty members, in an area of particular interest to the student. The final project will be a written report in the form of a publication in a peer-reviewed journal. The project will also be presented as an oral presentation at Dosimetry Research Day in June or early July.

ASSIGNMENT	DATE
Research data complete	
Written project complete	
National conference presentation material complete	
Oral presentations during Journal Club	

Reference Texts

This is an abbreviated list of texts and references recommended to Medical Dosimetry students. These references are available in the Briscoe Library or in the department.

Anatomy

1. Anatomy in Diagnostic Imaging	Fleckenstein

Radiation Oncology

1. Clinical Radiation Oncology	Gunderson

Physics

1. The Physics of Radiation Therapy 3rd edition	Khan
2. The Physics of Radiology	Johns
3. Christensen's Physics of Diagnostic Radiology	Curry III
4. Radiologic Science for Technologists	Bushong

Treatment Planning

1. Practical Radiotherapy: Physics & Equipment	Cherry
2. Radiation Therapy Planning 2nd edition	Bentel
3. Treatment Planning in Radiation Oncology	Khan
4. Physics of Electron Beam Therapy	Klevenhagen
5. Principles and Practice of Brachytherapy	Joslin, Flynn, Hall

Radiobiology

1. Radiobiology for the Radiologist 5th Ed	Hall
2. Clinical Radiobiology	Steele

Radiation Therapy

1. Radiation Protection	Shapiro

2. Hyperthermia — Bicher/Burley
3. Radiation Oncology Management Decisions — Chao, Perez, Brady
4. Therapeutic Radiology for the House Officer — Coia/Maylan
5. Radiation Protection for Med and Allied Health Personnel — NCRP Report #105
6. Studies on Tumor Formation — Nicholson
7. Malignant Lymphomas Etiology, Immunology, Pathology & Treatment — Rosenberg/Kaplan

Various journals are also available at the UT Health San Antonio library

STANDARD FOUR: HEALTH AND SAFETY

Radiation and Hazards

The UT Health Radiation Safety Program is committed to maintaining all employee radiation exposures and individual members of the public to the lowest possible levels achievable. To accomplish this goal, the radiation safety committee has adopted a formal ALARA program designed to maintain employee radiation exposure to levels "As Low as Reasonably Achievable".

All students will receive radiation safety and health training during their orientation—see Appendix B—conducted by the Department's Radiation Safety Officer (RSO). At this time, all students complete the radiation-monitoring badge form. The training includes the basics of radiation protection, placement of the radiation dosimeters, and the Department's radiation safety policy. Quarterly records of individual personnel exposure (Radiation-monitoring badge reading) are readily available for the student to review. A threshold whole body dose of 1rem shall be maintained for all students in the medical dosimetry program. If the dosimeter exceeds 1rem in any quarterly evaluation, the appropriate documentation will be required. The Program REQUIRES a qualified radiation worker to be present while students perform and sit in on procedures involving radiation.

MRI Safety

The UT Health San Antonio Medical Dosimetry program follows the ACR guidelines. There are no known biological risks associated with the magnetic field or radiofrequencies associated with MRI. The main magnetic field of MRI is always on, which requires that Zone III and Zone IV be secured at all times. Ferromagnetic objects, such as certain wheelchairs and oxygen tanks can become projectiles that may cause damage to the equipment, serious injury, or even death. ZONE I: All areas freely accessible to the public without supervision. Magnetic fringe fields in this area are less than 5 Gauss (0.5mT). ZONE II: Still a public area, but the interface between unregulated ZONE I and the strictly controlled ZONES III and IV. MRI safety screening typically occurs here under technologist supervision. ZONE III: An area near the magnet room where the fringe, gradient, or RF magnetic fields are strong to present a physical hazard to unscreened patients and personnel. ZONE IV: Synonymous with the MRI magnet room itself. Has the highest field (the greatest risk) and from which all ferromagnetic objects must be excluded. All students will complete the MRI safety screening form and watch the MRI Safety video.

Personnel Dosimeter Safety

If an over-exposure does occur, the Radiation Safety Officer will perform an incident investigation to determine if the dosimetry value is accurate or if the badge was accidentally exposed. While the investigation is occurring, all radiation related protocols will have to be stopped by the student involved—including any brachytherapy. If the value is deemed to be based on accidental exposure, a dose assessment will be performed based on the employee's

previous history or a co-worker's dose. In this instance, the employee may return to work if the values are below the regulatory limits with this dose assessment.

If the value is deemed to be accurate and an actual over-exposure to the badge, the student will have to cease all radiation related activities (radioactive material or x-ray machine generated) until the next calendar year. Students may continue their didactic training and will be strictly monitored by their department and the Radiation Safety Division.

Pregnancy Policy

The declaration of pregnant worker status is voluntary and is administered by the Radiation Safety Officer. In the event of suspected or confirmed pregnancy, the student should report to the Program Director as soon as possible. Notice of disclosure is strictly voluntary; however, it is in the student's best interest due to the increased radiosensitivity of the fetus, particularly in the period from 10 to 40 days post conception. To formally declare pregnancy, the student must complete a "**Declaration of Pregnancy Form**" and submit it to the office of the RSO.

Once disclosed, federal regulations governing the actions of a pregnant radiation worker will be enforced. Pregnancy will not affect a student's enrollment in courses without a clinical component. However, in order to fulfill requirements in clinical education and keep radiation exposures as low as reasonably achievable during the entire pregnancy, the student will be offered the following alternatives:

- Withdrawal from the program immediately. The student may resume studies after the birth of her child, on consultation with Program director.
- Withdrawal from all clinical course work and continue with the didactic portion of the program for the duration of the pregnancy. The student will then satisfy clinical education requirements after the birth of her child.
- Continue the program without modification and with full knowledge of the exposure hazard to the fetus. In this circumstance, the student will indicate in writing to the Program director and Radiation Safety Officer her intention to continue.

If, at any time, the student decides to revoke their declaration of pregnancy, they may do so by submitting a signed and dated letter to the Radiation Safety Officer.

Clinical Practice Safety

Student will be under the direct supervision of a clinical preceptor during clinical practice training. At no time, shall the student come in direct contact with patients during procedures without the direct supervision of a credentialed practitioner. Preceptors and supervisors are responsible for ensuring the appropriate student training during direct patient contact procedures.

STANDARD FIVE: ASSESMENT

The Program has established an assessment plan in order to ensure that continuous improvement and accountability is maintained. The purpose of the plan is to provide a self-evaluation tool in which effectiveness of the Program can be quantified. The Dosimetry Advisory Committee will meet annually to review the goals and assessment plan based on the feedback from graduate, faculty, and employers. Changes will be incorporated into the new incoming class.

The assessment plan is instituted relative to the Goals of the Program and presented below in the JRCERT format.

GOAL 1: Students will understand didactic dosimetry knowledge

Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results
Students will demonstrate a firm understanding of radiation physics and radiation biology	Successful completion of all core courses	Must maintain B (3.0) overall GPA per semester (Scale: 4.0)	End of semester	Educational Director	
	Program Evaluation Form S1 - #6, 2	Average score ≤ 2 (Scale: 5)	End of program	Educational Director	
Graduates will express knowledge of medical dosimetry concepts competently	Graduate Survey Form S1 - #1	Average score ≤ 2 (Scale: 5)	Six months post-graduation	Program Director	
	Employer survey #2,3,4	Average score ≤ 2 (Scale: 5)	Six months post-graduation	Program Director	

GOAL 2: Students will develop critical thinking skills

Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results
Students will analyze and demonstrate sound problem-	Clinical Practice Form	Average score ≤ 20 points on every competency (Scale: 50)	End of semester	Clinical Director	

solving techniques in correcting unacceptable treatment plans	Practicum Evaluation Form	Average score ≤ 20 points on practicums (Scale: 50)	End of semester	Course Director	
Graduates will be adequately prepared in critical-thinking and problem solving	Employer Survey Form S1 - #5,6	Average score ≤ 2 (Scale: 5)	Six months post-graduation	Program Director	
	Research abstract completed	Average completion rate ≥ 80%	End of semester	Educational Director	

GOAL 3: Students will demonstrate clinical competence in medical dosimetry.

Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results
Students will develop a treatment plan that provides target coverage and normal tissues sparing	Clinical Practice Form	Average score ≤ 20 on every competency (Scale: 50)	End of semester	Clinical Director	
	Practicum Evaluation Form	Average score ≤ 20 on practicums (Scale: 50)	End of semester	Educational Director	
Graduates will indicate that they were prepared to perform medical dosimetry procedures competently	Graduate Survey Form S1 - #2,3,4	Average score ≤ 6 (Scale: 15)	Six months post-graduation	Program Director	
	Employer Survey Form S1 #1-6	Average score ≤ 12 (Scale: 30)	Six months post-graduation	Program Director	

GOAL 4: Students will demonstrate communication skills

Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results
Students will demonstrate effective oral	Clinical Practice Form (Evaluation criteria #1)	Average score ≤ 2.0 (Scale 5)	End of semester	Clinical Director	

communication skills	Oral Presentation Rubric for Journal Club	Average score > 16.0 (Scale 24)	End of program	Clinical Director	
Students will demonstrate effective written communication skills	Practicum Evaluation Form	Average score ≤ 20 points on practicum written reports (Scale: 50)	End of semester	Educational Director	
	Presentation of AAMD research to faculty (Oral Presentation rubric)	Average score > 16.0 (Scale 24)	End of Dosimetry Research Day	Course Director	

GOAL 5: Students will gain professional development and growth skills in medical dosimetry.

Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results
Students will demonstrate the importance of continued professional development	Attendance records to patient and tumor board conferences	All students will attend > 66% of meetings	End of semester	Clinical Director	
	Read and discuss professional medical dosimetry literature at journal club (Attendance)	All students will attend > 80% of journal clubs	End of program	Clinical Director	
Students will understand their professional obligation to medical dosimetry profession	Report on the benefits of AAMD membership	>80% of students will become AAMD members	End of semester	Educational Director	
	Completion of AAMD presentation	> 80% completion rate	End of school year	Educational Director	

PROGRAM EFFECTIVENESS MEASURES

Outcome	Measurement Tool	Benchmark	Timeframe	Responsible Party	Results
Students will pass the MDCB on the 1st attempt within one year of graduation	MDCB Exam results	75% or higher each year/ 5-year avg > 80%	6 months post-graduation	Program Director	

Students will be gainfully employed within 6 months post-graduation	Graduate Survey or "word of mouth"	75% or higher each year/ 5-year avg > 80%	6 months post-graduation	Program Director	
Graduates will be satisfied with their education	Program Evaluation Form	Average score < 24 (Scale: 60)	Last week of program	Program Director	
Employers will be satisfied with performance of newly hired dosimetrist	Employer Survey Form	Average score < 12 (Scale: 30)	6 months post-graduation	Program Director	
Students will complete the Program	Program Completion Rate	90% of students will complete	Annually	Program Director	

STANDARD SIX: INSTITUTIONAL/PROGRAMMATIC DATA

Sponsoring Institution

The Program is established with the sponsorship of the UT Health San Antonio Long School of Medicine. The Program is a one-year certificate program within the Department of Radiation Oncology. UT Health is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. The School of Medicine is fully accredited by the Liaison Committee on Medical Education (LCME).

Personnel

In order to provide the appropriate knowledge, clinical competency and proficiency, the Program requires that the faculty and staff must possess the academic and professional qualifications for their assignments. In doing so, the Dosimetry Advisory Committee will evaluate and certify that the academic and professional qualifications are acceptable and in accordance with the Standards set forth by the JRCERT. It is the Program's policy that all Clinical Preceptors and Program Directors MUST hold their specific certifications.

Clinical Practice Setting

If additional clinical practice settings are to be established, the Program shall formalize relations between itself and the clinical practice setting to help assure that quality of clinical practice by delineating the appropriate responsibilities of the Program and the clinical practice setting. In adherence to the JRCERT Standards, an affiliation agreement shall be established between both parties.

In addition, the clinical practice setting must be recognized by The Joint Commission (TJC) or an equivalent agency or may hold a state-issued license. This is a requirement to assure that all clinical practice settings are in compliance with applicable state and/or federal radiation safety laws.

STUDENT ORIENTATION CHECKLIST

Student Name: _____

Start Date: _____

1. Radiation Safety Officer
   - ☐ Radiation Safety and Film badge
   - ☐ MRI Safety Training
   - ☐ Clinic Hazards
   - ☐ Personal Protective Equipment
   - ☐ Incident Reporting and Emergency Material

2. Tour of Facility

3. Review of Responsibilities with Medical Physics Director and Clinical Director
   - ☐ Review policies and clarification of specific duties
   - ☐ Review who to notify for sickness or tardiness
   - ☐ Introduction to department staff
   - ☐ Review of schedule

4. Administrative Assistant
   - ☐ Parking
   - ☐ Website – Dosimetry Program Website
   - ☐ Identification Card
   - ☐ Pictorial Directory

I certify that I have review the above items with my supervisor or designated person(s) and I understand each of the items designated by a (✓) mark.

Signature of Student Date:

SUPERVISOR OR DESIGNATED PERSON(S)

I certify that the above resident has been instructed in each of the previously listed items. (N/A if not applicable to employee)

_____Signature of Supervisor

MRI SCREENING FORM FOR STUDENTS

Magnetic Resonance Screening Form for Students

Magnetic resonance (MR) is a medical imaging system in the radiology department that uses a magnetic field and radio waves. This magnetic field could potentially be hazardous to students entering the environment if they have specific metallic, electronic, magnetic, and/or mechanical devices. Because of this, students must be screened to identify any potential hazards of entering the magnetic resonance environment before beginning clinical rotations.

Pregnancy Notice: The declared pregnant student who continues to work in and around the MR environment should not remain within the MR scanner room or Zone IV during actual data acquisition or scanning.

Student Name: _____ Date: _____

	Circle Yes or No	
1. Have you had prior surgery or an operation of any kind?	Yes	No
If yes to question 1, please indicate the date and type of surgery: Date: _____ Surgery Type: _____		
2. Have you had an injury to the eye involving a metallic object (e.g. metallic slivers, foreign body)?	Yes	No
If yes to question 2, please describe: _____		
3. Have you ever been injured by a metallic object or foreign body (e.g., BB, bullet, shrapnel, etc.)?	Yes	No
If yes to question 3, please describe: _____		
Please indicate if you have any of the following:		
Aneurysm clip(s)	Yes	No
Cardiac pacemaker	Yes	No
Implanted cardioverter defibrillator (ICD)	Yes	No
Electronic implant or device	Yes	No
Magnetically-activated implant or device	Yes	No
Neurostimulator system	Yes	No
Spinal cord stimulator	Yes	No
Cochlear implant or implanted hearing aid	Yes	No
Insulin or infusion pump	Yes	No
Implanted drug infusion device	Yes	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	Yes	No
Other device: _____	Yes	No

I attest that the above information is correct to the best of my knowledge. I have read and understand the entire contents of this form and have had the opportunity to ask questions regarding the information on this form. Should any of this information change, I will inform my program director.

Student Signature : _____ Date ____/____/____

☐ The student has not identified any contraindications to entering MR Zone III or IV.

☐ The student has identified contraindications to entering MR Zones III and IV. The student has been advised not to progress past MR Zone II unless screened by an MR Level II Technologist onsite at each clinical setting.

Form Information Reviewed By: _____ _____ _____ _____

Print name | Signature | Title | Student Initials

This form is provided by the JRCERT as a resource for programs. Programs are encouraged to personalize the form prior to use.

Remember: The magnet is always on!

M E D I C A L D O S I M E T R Y P R O G R A M
D E P A R T M E N T O F R A D I A T I O N O N C O L O G Y

STUDENT AGREEMENT FORM

STUDENT: _____

CLASS OF: _____

I have read the Class of 2025-2026 Student Handbook, and I agree to abide by all the rules, policies and regulations therein.

I understand that the Mays Cancer Center cannot guarantee employment upon my graduation but will offer me assistance in finding employment elsewhere.

_____
Signature of Student Date

_____
Signature of Program Director Date

EMERGENCY CONTACT FORM

M E D I C A L D O S I M E T R Y P R O G R A M

Name: _____

Address:

_____

Phone No:

_____

While you are living in San Antonio, Texas, in case of an emergency contact:

Name: _____Relationship: _____

Address:_____ Phone No: _____

Contact out of town relatives:

Name: _____ Relationship: _____

Address:_____ Phone No: _____

Mays Cancer Center
UT Health San Antonio MD Anderson Cancer Center

Course Evaluation Form

Instructor: _____Course:_____

1. Course Evaluation:

	Excellent	Good	Fair	Poor	Very Poor
1. The course as a whole was:	1	2	3	4	5
2. The course content was:	1	2	3	4	5
3. Course organization was:	1	2	3	4	5
4. Quality of questions or problems raised by the instructor was:	1	2	3	4	5
5. Answers to student questions were:	1	2	3	4	5
6. Availability of extra help when needed was:	1	2	3	4	5
7. Amount you learned in the course was:	1	2	3	4	5
8. Relevance and usefulness of course content were:	1	2	3	4	5
9. Evaluative and grading techniques were:	1	2	3	4	5
10. Clarity of student responsibilities and requirements was:	1	2	3	4	5

2. Instructor Evaluation:

	Excellent	Good	Fair	Poor	Very Poor
1. Instructor's contribution to the course was:	1	2	3	4	5
2. Instructor effectiveness in teaching the subject matter was:	1	2	3	4	5
3. Explanations by instructor were:	1	2	3	4	5
4. Instructor use of examples and illustration was:	1	2	3	4	5
5. Instructor spoke clearly:	1	2	3	4	5
6. Instructor's enthusiasm was:	1	2	3	4	5
7. Instructor's interest in whether students learned was:	1	2	3	4	5

3. How did you feel overall about the course? Please comment on any aspects you felt may need improvement or could be better taught.

_____

_____

_____

_____

_____

4. Additional comments or specific changes you would like to see made to improve the instructor and/or the course:

_____

_____

Mays Cancer Center
UT Health San Antonio MD Anderson Cancer Center

Practicum Evaluation Form

Student: _____

Instructor: _____Course: _____

Practicum Site: _____

Practicum:	**1**	**2**	**3**	**4**	**5**
Overall presentation					
Practicum goals identified					
Contouring					
Beam set up					
Position of calculation points					
Plans completed					
DVH analysis					
Hand calculations					
Summary					
Practicum goals achieved					
Total Score				**(**≤ 20)	

Abbreviations: 5. Needs Improvement 4. Improving Steadily 3. Satisfactory 2. Displays Good Understanding
1. Outstanding

Comments:

_____

_____

_____

_____

_____

_____

Mays Cancer Center
UT Health San Antonio MD Anderson Cancer Center

Presentation Rubric Form

Presenter: _____ Evaluator: _____ Date: _____

Category	1	2	3	4	Score
Organization	Cannot understand because of no sequence of information	Difficulty following presentation because presenter jumps around	Information presented in logical sequence	Information presented in logical, interesting sequence	
Subject Knowledge	No grasp of presentation information, cannot answer questions	Uncomfortable with information and only providing vague answer responses	Presenter at ease with expected answers to all questions, but fails to elaborate	Full knowledge by answering questions and elaborating	
Graphics	Use of superfluous graphics or no graphics	Occasional use of graphics that rarely supports text and presentation	Graphics related to text and presentation	Graphics explain and reinforce screen text and presentation	
Mechanics	Presentation has four or more spelling/ grammatical errors	Presentation has three spelling/ grammatical errors	Presentation has two spelling/ grammatical errors	Presentation has no spelling/ grammatical errors	
Eye Contact	Presenter reads all of report with no eye contact	Presenter occasionally uses eye contact, but most reads	Presenter maintains eye contact most of the time but frequently returns to notes	Presenter maintains eye contact with audience, seldom returning to notes	
Elocution	Presenter mumbles, incorrectly pronounces terms, and speaks too quietly	Presenter's voice is low, incorrectly pronounces terms, difficulty hearing	Presenter's voice is clear, most words pronounced correctly.	Presenter's voice is clear and correct, precise pronunciation of terms for all audience can hear	
TOTAL SCORE (Best 24 points)					

Comments:

_____

Mays Cancer Center
UT Health San Antonio MD Anderson Cancer Center

Graduate Contact Information Form

Year of Graduation: _____

Graduate Name: _____

Future Contact Information

Email: _____

Telephone Number: _____

Mailing Address:
_____

Future Employee Information

Name of Employee (if known): _____

City of Employment (if known):
_____

Mays Cancer Center
UT Health San Antonio MD Anderson Cancer Center

Graduate Survey Form

Name: _____Date:_____

In order to improve our training program so that it meets the needs of cancer centers around the country, we ask for a few minutes of your time to fill out this survey. Please submit this form electronically to: Dr. Patricia Candia (candia@uthscsa.edu) or in writing to Attn: Dr. Patricia Candia, Department of Radiation Oncology, G242/MC7889, San Antonio, TX 78229.

1. Evaluation based on your training in our program:

	Excellent	Good	Fair	Poor	Very Poor
Level of didactic preparation for MDCB exam:	1	2	3	4	5
1. Level of clinical preparation for MDCB exam:	1	2	3	4	5
2. Ability to work independently in the clinic:	1	2	3	4	5
3. Preparation as entry-level dosimetrist:	1	2	3	4	5

2. Do you feel you were adequately trained as an entry-level dosimetrist in our program? Are there areas in which further training would have benefitted you significantly?

_____
_____
_____
_____
_____

3. How soon after graduation did you begin working as a dosimetrist?

_____
_____
_____
_____

4. Do you now feel you were adequately prepared for your MDCB exam?

_____
_____
_____

Mays Cancer Center
UT Health San Antonio MD Anderson Cancer Center

Employer Survey Form

Name: _____ Date: _____

Graduate Evaluated: _____

In order to improve our training program so that it meets the needs of cancer centers around the country, we ask for a few minutes of your time to fill out this survey regarding one of your current employees who graduated from our program. Please submit this form electronically to: Patricia Candia at candia@uthscsa.edu.

1.Evaluation:

	Excellent	Good	Fair	Poor	Very Poor
Your overall satisfaction of employee	1	2	3	4	5
Dosimetry knowledge of employee:	1	2	3	4	5
Employee's ability to work independently:	1	2	3	4	5
Employee's treatment planning ability:	1	2	3	4	5
Employee's ability problem solve:	1	2	3	4	5
Employee's critical thinking ability:	1	2	3	4	5

2.Has this employee performed adequately as an entry-level dosimetrist?

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3. Are there areas in which the employee was inadequately trained? If yes, please explain.

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Medical Dosimetry
Holiday Calendar
2025 – 2026

August 18, 2025	1st Day of Class
September 1, 2025	Labor Day Holiday
Nov. 27 & 28, 2026	Thanksgiving Holidays
Dec. 22 – Jan. 4, 2026	Holiday Break
Jan. 19, 2026	Martin Luther King Holiday
Feb. 16, 2026	President's Day
Mar 9 – Mar 13, 2026	Spring Break
May 25, 2026	Memorial Day
June 19, 2026	Juneteenth Day
July 31, 2026	Last Day Class