

# Stony Brook University School of Health Technology and Management Health Science

## Medical Dosimetry Clinical Year Policies and Procedures

Students are bound by the academic standards, policies and procedures listed in this handbook as well as the policies and procedures that detailed in the School of Health Technology and Management Policies and Procedure manual (found at the first webpage link below) and the Stony Brook University's Student Conduct Code (found at the second link below):

[https://healthtechnology.stonybrookmedicine.edu/sites/default/files/2019%20SHTM%20Student%20%20Handbook%20for%20Professional%20Programs\\_3.pdf](https://healthtechnology.stonybrookmedicine.edu/sites/default/files/2019%20SHTM%20Student%20%20Handbook%20for%20Professional%20Programs_3.pdf)

<https://www.stonybrook.edu/commcms/studentaffairs/ucs/conduct.php?accordion=undefined>

<b>Table on Content</b>	<b>Page</b>
Mission, Program Goals and Outcomes	3 - 4
Medical Dosimetry Program Faculty	4
Clinical Rotation Instructions	5
<b>Orientation and Policy Review Agenda</b>	<b>6 - 8</b>
<b><u>POLICIES AND PROCEDURES</u></b>	<b><u>8 - 17</u></b>
POLICY ON TUITION/REFUND POLICY	8
POLICY ON CLINICAL ATTENDANCE AND PUNCTUALITY	9 -10
POLICY ON MONTHLY MEETINGS WITH PROGRAM DIRECTOR	10
POLICY ON PROFESSIONAL CONFIDENTIALITY	10
POLICY ON GENERAL RULES OF CONDUCT AND SAFETY	10 -11
POLICY ON DRESS CODE	11 - 12
POLICY ON PROFESSIONAL BEHAVIOR	12 - 13
POLICY ON PROBATION AND TERMINATION	13 - 14
POLICY ON REGULATIONS	14 - 15
POLICY ON VACATION DAYS, HOLIDAYS AND PERSONAL DAYS	14 - 15
POLICY ON DISABILITIES	15
POLICY ON DECLARATION OF PREGNANCY	15 - 16
POLICY ON RADIATION PROTECTION	16 -17
<b><u>EDUCATIONAL POLICIES AND PROCEDURES</u></b>	<b><u>17- 32</u></b>
FACULTY POLICY: CLINICAL OBJECTIVES AND ASSIGNMENTS EVALUATIONS	18 - 23
GRADING SYSTEM	23
MINI COURSE GRADING (with rubric)	23 - 24
FACULTY POLICY ON MONTHLY BEHAVIORAL OBJECTIVES EVALUATION (with rubric)	25-26
CURRICULUM SUMMARY	27 - 32
Appendix A: Safety Incident Report Procedure	33 - 34
Appendix B: Grading Tools/Forms	35 - 39
Appendix C: The Joint Review Committee on Education, Accreditation Standards	40-118

The Medical Dosimetry program is a 2-year program that redefines the old 4 + 1 model of clinical allied health education. The first year of the Medical Dosimetry program is credit-bearing and is comprised of the curriculum within the senior year of the Health Science major. After successful completion of the didactic lessons in the first credit-bearing year of the program, students continue to the 12-month, fulltime post-baccalaureate clinical year of training, also known as the HTMNC program. All clinical rotations are conducted at Stony Brook University Hospital with special procedure observations at Memorial Sloan Kettering and Mount Sinai Health System. The second year of the Medical Dosimetry program provides students with high quality clinical rotations and non-credit academic study units/mini courses. This model embeds a two-year professional program within an undergraduate degree program, which yields baccalaureate prepared Medical Dosimetrists. Total length of program 5 years: Health Science major (4 years) + 12 months (non-credit continuation of study) = 5 years.

The Medical Dosimetry is a concentration of study within the Bachelor of Science in Health Science degree program, as such, the Medical Dosimetry program **will only accept applications from eligible Health Science majors once they have advanced to the senior year curriculum of the major.** The student applications are reviewed by a program level admissions committee, candidates then must be presented to the School of Health Technology and Management's (SHTM) admission committee. Students are admitted into the program through SHTM.

## **Mission Statement:**

The Mission of the Medical Dosimetry Program is to optimize the knowledge, attitudes and skills of our students by maximizing their potential and introspection while enabling them to heighten their critical thinking in an effort to meet the daily challenges of a medical dosimetrist in the dynamic field of radiation oncology. Through clinical work and didactic lessons, students will hone the skills that are required to serve our patients in the community, while maintaining ethical standards and professionalism in and out of the clinic. They will become an integral part of the health care team in the battle against cancer.

## **Program Goals and Outcomes**

**Program Goals:** Students will demonstrate clinical competence.

### **Student Learning Outcomes:**

- Students will produce treatable plans.
- Students will demonstrate understanding of basic science concepts require for site specific treatment planning.

**Program Goals:** Students will practice critical thinking skills.

**Student Learning Outcomes:**

- Students will adequately respond to challenges about the optimal nature of their treatment plans.
- Students will show the ability to perform multiple tasks in a timely manner.

**Program Goals:** Students will practice with professional values.

**Student Learning Outcomes:**

- Students will display professional conduct.
- Students will demonstrate lifelong learning.

**Program Goals:** Students will display effective communications skills.

**Student Learning Outcomes:**

- Students will demonstrate written communication skills.
- Students will demonstrate oral communication skills.

**Medical Dosimetry Program Faculty**

**Program Director:**

Laura Borghardt, MS, CMD

**Clinical Coordinator:**

Sandeep Ailawadi, MS, CMD

**Educational Coordinator:**

D. Hernandez, BS

**Clinical Instructors:**

A. Stessin, MD, PhD  
S. Ryu, MD  
D. Kahn, MS  
J. Kim, PhD  
S. Lu, MS  
Z. Xu, PhD

E. S. Valentine, MBA, MD  
K. Mani, MD, PhD  
M. Kartsonis, CMD  
T. Yoder, CMD  
T. Hsia, MS  
X. Qian, PhD

## CLINICAL ROTATION INSTRUCTIONS

On the first day of rotation, the dosimetry student will report to the Chief Dosimetrist for assignment to one or a pair of clinical instructors. The student will report in with the assigned clinical instructor(s) to sign in and out on the time sheet each clinic day. At the end of each month, place the completed time sheet in the Chief Dosimetrist's mail box. Students will be e-mailed on a daily basis and are expected to check their Lotus e-mail accounts regularly. At the end of the week students must e-mail the Chief Dosimetrist with a log of their progress and status on their assigned work. **Only the hospital email system is an acceptable form of electronic communication.**

Your duties on each rotation are to learn to perform as many of the daily dosimetry tasks as possible as well as accomplish your competencies. You should participate in daily checks, transfers of information to the paper and electronic chart, peer review, conference with physicians, Sim and CT, calculations, conference with radiation therapists, etc. You are expected to attend any in-service as directed by the clinical coordinator or program director while you are in the clinic. When you report in each clinic day, ask what you can do to help your clinical instructor. If your clinical instructor has nothing for you, ask the other dosimetrists if you can help them.

To accomplish your competency, your clinical instructor will demonstrate treatment planning for the service and will assign you an image set to practice with. You should take notes any time any procedure is demonstrated for you. You may refer to your notes and ask for clarification and help during your practices. After a minimum of two practice attempts, and when you feel you can produce an acceptable treatment plan without help from a dosimetrist, report to your clinical instructor that you are ready to perform the competency. Each attempt will be graded. While you are performing you may not ask for advice from anyone. Print out your plan and hand it in to your clinical instructor. Your clinical instructor will grade each task and compile the scores to add up to a Pass or Fail and initial the printed-out plan. The clinical instructor will turn these into the Chief Dosimetrist. A copy of the score sheet and the printed plan will be returned to the student. A Pass means that you may concentrate on your next competency. A Failing grade means that you must practice and improve in the area that was unsuccessful and attempt the competency again. Two failures on the same competency will be followed by a conference with the Chief Dosimetrist and Program Director to construct remediation. All competencies shall be completed by the end of April.

Student will complete at least two competencies with a passing grade each month. If this expectation is not met, then the student will be placed on probation. If by the beginning of the Spring Semester the student is still on probation, he/she will not be allowed to continue in the program.

All students will be expected to accompany the dosimetrists in their brachytherapy duties. This includes, but is not limited to, going to the OR for prostate seed implants, HDR planning and assaying sources. Although direct patient care is limited, students will maintain their professionalism at all times.

## Orientation and Policy Review Agenda

1. **Administrative Issues:** Most of these topics are covered in the Policy and Procedures (PP) manual distributed to each student.
  - a. Tuition
  - b. Dress Code
    - i. “Whites” must be worn at all times according to the PP manual
  - c. Working Hours
    - i. Students are expected to arrive on time!
    - ii. Attendance sheets must be signed daily on arrival by the senior dosimetrist
    - iii. The working day is 8AM to 5PM with 60 minutes for lunch
  - d. Vacation and Leave Policy
  - e. E-mail Accounts
    - i. Much of the communications regarding work flow is carried out via e-mail. As such, Students will be given university e-mail accounts and are required to check their accounts for e-mail on a daily basis.
  - f. Use of Internet and Web.
    - i. Students may not “surf the web” or check personal e-mail during working hours.
  - g. Attendance and Evaluations
    - i. Students will be evaluated on a monthly basis as to their clinical performance and professional behavior by the senior dosimetrist (clinical coordinator).
    - ii. Evaluation will be based upon the quality of work, productivity, professional attitude and behavior, attendance, and completion of treatment plan competency forms, completion of peer review conference summary reports.
  - h. Attendance at Department Meetings
    - i. On-time attendance at the weekly peer review conferences is mandatory
    - ii. On-time attendance at all visiting professor lectures is mandatory
      1. Students will arrive at the talks at least 10 minutes in advance
  - i. Minimum Grade and Performance Requirement
    - i. Students will receive numerical grades in class, however transcript grades will be documented as Pass/Excellent Performance, Pass/Satisfactory Performance, Incomplete, or Fail
    - ii. Students are expected to receive Pass/Satisfactory Performance or higher in all of their didactic course work and competencies in order to complete the program.
  - j. Warning and Probation
    - i. If a student is not meeting program performance expectations, the student will receive a “warning” notice by October 1, and be considered as “on probation”. If sufficient improvement is not demonstrated by January 1, the student will be asked to leave the program.
    - ii. The warning recommendation will be sent by the clinical coordinator/senior dosimetrist to the program director.

- iii. The clinical coordinator and the program director will meet with and inform the student in question.
- k. Review of the Joint Review Committee on Education in Radiologic Technology (JRCERT) accreditation standards.
  - i. The Standards for an Accredited Educational Program in Medical Dosimetry will be provided and explained.
    - 1. Standard are found at the end of this document (Appendix C) and at: <https://www.jrcert.org/programs-faculty/jrcert-standards/>
  - ii. Students will be encouraged to review the details of the individual standards and to address any questions or concerns regarding the compliance of these Standards to the program director.
  - iii. If the program director or institution cannot provide students an adequate answer to their question(s) or resolution to their concern(s) they will be encouraged to contact JRCERT directly at <https://www.jrcert.org/students/process-for-reporting-allegations/>
- l. Notify Program Director of interviews and review of resumes.
  - i. A draft of the CMD exam application will be sent to the program director for review at least 2 weeks in advance of submission.
- m. Job Application Reference by the Program Director

## **2. Course Curriculum and Syllabus**

## **3. Clinical Training**

## **4. Policy and Procedure Manual**

## **5. Personal Portfolio Requirements**

- a. All treatment planning must be logged. The section should include for each case:
  - i. Treatment plan report must be completed
  - ii. Manual MU calculation must be performed and compared for 2 fields
  - iii. Copies of Isodose maps and field information
- b. Competency forms must be completed and evaluated by the Senior Dosimetrist for specified treatment plan categories.
  - i. At least 2 competency forms completed and approved by Senior Dosimetrist each month
  - ii. All completed by end of April
  - iii. At least 2 cases completed prior to the case used for competency review
  - iv. Student is responsible for finding and completing cases from the teaching database as well as current patients.
  - v. All forms should be kept anonymous for patient privacy
- c. Attendance at the weekly peer review conference is mandatory
  - i. Each student must generate a one-page report on a case presented at the peer review conference.
  - ii. The report should include the definitions and explanations of at least two new words and concepts brought up at the meeting

- iii. The report should be graded and initialed by a senior dosimetrist and included in the personal portfolio

### **POLICY ON TUITION**

Tuition payment (\$7,500 plus university technology, transportation and academic excellence & success fees -\$240) must be received, in full, before the end of the first week:

<https://www.stonybrook.edu/commcms/bursar/tuition/certificate-program>

#### **Payment Procedure:**

Payment is made by to the Bursars office through SOLAR on-line. Monies due will appear on students SBU account. Students are required to have health insurance, if the student wishes to purchase the university health insurance plan there will be an extra cost. A student shall not be permitted to attend classes or clinical education beyond the posted tuition deadline dates without receipt of tuition and insurance payment or approved payment voucher.

#### **Refund Policy: (includes full or partial payment)**

##### **Tuition Refund:**

Week 1	100%
Week 2	70%
Week 3	50%
Week 4	30%
Week 5 or after	0%

Orientation will be held on the first day of the program. Absence from classes does not constitute an official withdrawal and does not relieve the student of his or her financial obligation, nor entitle the student to a refund. Students must officially request to withdraw, in writing, to the Dean's Office.

Students will be responsible for other fees incurred during the duration of the program. Such fees included but are not limited to, professional liability insurance and background checks or drug testing required by clinical affiliates. A schedule of anticipated program costs will be provided during the orientation program. Uniforms, books, and parking fees are the responsibility of the student.

**NO STUDENT WILL BE PERMITTED TO ENTER THE CLINICAL SETTING OR ATTEND ORIENTATION WITHOUT MEDICAL CLEARANCE & HEALTH AND LIABILITY INSURANCE.**

**POLICY ON CLINICAL ATTENDANCE AND PUNCTUALITY**

The presence of students in the clinical facility must in no way alter the routine work schedule of the department or inconvenience the patients or staff. Therefore, dependability and punctuality are essential.

A. Attendance

1. Each student will receive a clinical schedule. Students are allowed in the patient treatment area only on their assigned days.
2. Each student is responsible for signing in at the time of arrival at the clinic. Failure to do so may result in the student not being credited with the time spent in the department.
3. Each student is responsible for signing out and obtaining the appropriate Clinical Instructor Supervisor's signature at the end of the day. Failure to do the preceding will result in lost time!
4. No student will be allowed to have clinical assignments on hospital holidays or weekends.
5. Students are not allowed to earn more than forty hours of clinical time in one week.
6. Only full eight-hour days are given credit unless previously authorized by Clinical Supervisor.

B. Absence

1. In case of absence due to illness the student must notify the Clinical Supervisor by telephone within the first half hour of the clinic's working day.
2. Clinic absence must be reported to Program Director's office by the Clinical Supervisor.
3. An excess of three days absence in any one semester will be sufficient reason to have the student's participation in the program reviewed.
4. No student will absent themselves from their clinical schedule for the purposes of studying for examinations.

5. Time missed due to inclement weather may need to be made-up; this will be at the discretion of Program Director.

### **POLICY ON MONTHLY MEETINGS WITH PROGRAM DIRECTOR**

Each student will meet with the Program Director within 1 week of the end of each month. The Students will be prepared to submit and discuss the following at this meeting:

1. Monthly attendance sheet with all appropriate signatures
2. Monthly evaluation sheet signed by the Program Clinical Coordinator
3. Record of completed treatment plans
4. Record of currently completed competency forms.

### **POLICY ON PROFESSIONAL CONFIDENTIALITY**

One of the major restrictions that a health care profession imposes upon you is the need to maintain strict confidentiality of medical and personal information about a patient. Medical records, including histories, diagnostic images and all radiographic film records are considered part of the medical record. They must be handled confidentially, for example, a patient's chart and cannot be revealed to the patient, family, or others outside the department without the direct consent of the patient's physician. Medical information should only be shared with individuals who are involved in the patient's care and must know for treatment purposes. Information should never be discussed with your own family or friends in even the most general terms because you would be violating the patient's rights.

An invasion of privacy can be as obvious as releasing medical information to the press or as subtle as discussing a patient's condition with a co-worker in a public place. Maintain confidentiality and ensure the privacy of each patient.

### **POLICY ON GENERAL RULES OF CONDUCT AND SAFETY**

Students are expected to conduct themselves in a professional manner at all times.

#### **CONDUCT**

- Students are expected to observe the guidelines set forth in the directives issued by the New York State Department of Health, Radiologic Technology, Bureau of Environmental Radiation Protection.

- Students must abide by the standard rules and regulations of the Program and all affiliated Clinical Education Centers. Please see attached website: <http://healthtechnology.stonybrookmedicine.edu/faculty/policies>
- Students will address the staff, patients and fellow students by their appropriate title and/or last name.
- Eating and drinking are permitted in designated areas only.
- Stony Brook University and Medical Center is a smoke-free facility. There is no smoking allowed anywhere on site.
- Personal relationships with staff and patients are not encouraged.
- Personal conversation and discussions with classmates or staff while interacting with patients are in poor taste and should be limited to off duty hours.
- Grievances and personal dislikes should be aired in private and with the appropriate persons.

## **SAFETY**

- Students are required to acquaint themselves with the routine radiation and electrical safety rules.
- Accidents involving students or patients will be reported immediately to the Program Director. (Please see attached Incident Report form in Appendix A)
- Film badges will be worn at all times while in the clinical facility.
- Gross and willful negligence in the use of radiation and/or in the handling of radioactive substances which endangers the health of the student or patient will result in immediate dismissal.

## **POLICY ON DRESS CODE**

### **Prescribed Uniform for Students**

- A student must wear a white uniform top and white uniform pants (no white jeans).
- White shoes and socks are required (no athletic type shoes).

### **Required Accessories**

- A nametag that includes the name of the school must be worn. It must contain the word "Student"
- Radiation badges can be worn at belt-level or on collar or pocket above waist on same

side as ID.

### **Professional Appearance**

- Uniforms and shoes must be clean and in good repair.
- Sweaters, if worn, must be white or navy.
- Long hair must be pulled back in a neat fashion.
- Beards and mustaches must be neatly trimmed.
- Excessive jewelry and excessive use of cosmetics and bizarre clothing are inappropriate.
- White shirts are not considered uniform tops
- Long fingernails pose a health and hygiene hazard and are inappropriate in the clinical setting.
- Careful attention must be paid to personal hygiene when attending clinic.

### **Failure to Dress Properly**

A student who reports to the clinic not in proper attire may be sent home at the discretion of the Clinical Supervisor. No clinic hours will be credited.

## **POLICY ON PROFESSIONAL BEHAVIOR**

### **Performance Skills and Attitudes Assessment Procedures**

In **addition to** mastery of cognitive skills and knowledge, students will be evaluated on their performance skills and attitudes. These include:

- adherence to the University Code of Conduct
- ability to work with and relate to peers, faculty and other members of the health care team
- attitude
- attendance and punctuality
- appearance and professional demeanor

Successful completion of each course requires that the student continuously maintain high standards. This means that regardless of one's level of achievement in cognitive skills and knowledge, if one's professional behavior is not appropriate, he/she may not meet minimum requirements for successful completion of the course.

### Unsatisfactory **Performance Skills or Attitudes**

- Unsatisfactory behavior such as disruption of class activities, expression of derogatory, disrespectful remarks to the instructor, inability to work with peers, or excessive unexcused absences may be cause for warning or further action.
- A student who has exhibited unsatisfactory behavior that may affect his or her final evaluation and academic standing shall receive a written warning that stated behavior may jeopardize successful completion and lead to failure of the course.

*The details of these policies and procedures can be found in the Academic Standing Policy of the School of Health Technology & Management. All students are also expected to adhere to the University's Student Conduct Code (copies available in the BSHS office). As well, students are expected to uphold the stricter guidelines outlined in their Medical Dosimetry clinical Policy and Procedure handbook.*

### **POLICY ON PROBATION AND TERMINATION**

- **All students** enrolled in the program will be placed on program probation for academic performance of a grade(s) lower than 75% or Pass/ Satisfactory Performance in any undergraduate, didactic course or competency within the Program curriculum. The Program Director will review the situation and will submit written documentation that the student has failed to maintain the requirements of the program and termination will be requested.
- **Post B.S.** For students who fail (less than 75% or Fail/Unsatisfactory grade) two or more courses, the Program Director will review the situation and will submit written documentation to the Chair of the Health Science Program that the student has failed to maintain the requirements of the program and termination will be requested.
- Unsatisfactory and/or unethical clinical performance will also result in a probationary status and possible termination from the Medical Dosimetrist Program
- Any student will be recommended for termination from the program if, while on probation their academic grade(s) falls below the grade of 75% or Pass/Satisfactory Performance or receive a grade of *unsatisfactory* in any clinical Monthly Behavioral Objections Evaluation.

### **POLICY ON REGULATIONS**

1. Student may not perform patient related duties except under the direct supervision of a staff dosimetrist, physicist, physician or radiation therapist. This includes, but is not limited to, calculations, treatment plans, simulations, fabrication of immobilization

devices, etc.

2. Any behavior on the part of a student which could result in an unsafe condition for a patient, staff member, or other students should be immediately corrected by the supervising Radiation Physicist/Dosimetrist and reported to the Clinical Supervisor and the Program Director.
3. Any injuries involving a student should be written up as an incident report.
4. Student assignments should be educational in purpose. Students should not be used to augment staff shortages. However, this does not imply that students may not perform tasks useful to the department.
5. The Medical Dosimetry Program's Clinical Supervisor should complete student evaluations at the end of the month.
6. All problems which cannot be resolved by discussion between the staff dosimetrist and the student should be communicated to the Clinical Supervisor and / or the Program Director, so as not to interfere with the operations of the Radiation Oncology Department.
7. Any questions which arise as to Dosimetrist or student responsibilities should be discussed with the Clinical Supervisor.

### **POLICY ON VACATION DAYS, HOLIDAYS AND PERSONAL DAYS**

The students in 2nd year of the Medical Dosimetry Program will be allotted the following days off:

1) Holidays when the Department of Radiation Oncology is closed:

- a) Independence Day
- b) Labor Day
- c) Thanksgiving Day
- d) Christmas Day
- e) New Year's Day
- f) Washington's Birthday

2) Additional days: holidays or adjoining holidays:

- a) Day after Thanksgiving

## 3) Winter break:

The winter vacation will generally begin on December 24 and extend through New Year's Day, January 1.

## 4) Spring break:

A one-week spring break (5 working days) can be scheduled within the calendar period allotted for spring recess on the SHTM academic calendar or for the week of the medical dosimetrist refresher course given at MD Anderson Hospital or other approved review course. The student must notify the Program Director and the Clinical Coordinator which week he/she will be taking off for Spring break at least one month prior.

## 5) Personal days:

Each student will be entitled to 6 personal days to be used for reasons of vacation, minor illness, family needs, etc. Student must notify the Program Director and the Clinical Coordinator at least 48 hours prior, unless due to illness.

## **POLICY ON DISABILITIES**

### **Accessibility Support Center (SASC) Statement:**

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact the Student Accessibility Support Center (SASC), ECC (Educational Communications Center) Building, room 128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and the Student Accessibility Support Center. For procedures and information go to the following website: <https://ehs.stonybrook.edu/programs/fire-safety/emergency-evacuation/evacuation-guide-people-physical-disabilities> and search Fire Safety and Evacuation and Disabilities.

## **POLICY ON DECLARATION OF PREGNANCY**

I, \_\_\_\_\_, do hereby make this voluntary declaration of Pregnancy. My estimated date of conception was \_\_\_\_\_ 201\_\_.

It has been explained to me that I am making this voluntary Declaration of Pregnancy. I understand that this means the Radiation Therapy Dosimetry Program/Licensee must take measures to ensure that the total dose to the

embryo/fetus during the entire pregnancy from occupational exposure does not exceed 0.5 rem (5 mSv). If as of this date, the total dose to the embryo/fetus is 0.45 rem (4.5 mSv) or greater, the total dose to the embryo/fetus during the remainder of the pregnancy shall not exceed 0.05 rem (0.5 mSv). I also understand that there will be no modifications to my clinical rotation by declaring my pregnancy.

It has been explained to me that if I receive 0.5 mSv or higher I may choose the reassignment of my clinical rotations and corresponding learning objectives to those that will result in lower occupational exposure or the placement of certain restrictions on the duties that I perform. I understand that by choosing a reassignment it will result in the delay of my program completion.

It has also been explained to me that I may revoke the declaration of pregnancy at any time and that the revoking of the declaration must be in writing.

\_\_\_\_\_  
Student Medical Dosimetry

\_\_\_\_\_  
Date

\_\_\_\_\_  
Radiation Safety Officer

\_\_\_\_\_  
Date

**\*\*\*Sample Document\*\*\***  
**(Not to be used as an official form)**

**POLICY ON RADIATION PROTECTION**

**Subpart B -- Radiation Protection Programs**

Source: 56 FR 23396, May 21, 1991, unless otherwise noted.

§20.1101 Radiation Protection Programs.

- (a) Each licensee shall develop, document, and implement a radiation protection program commensurate with the scope and extent of licensed activities and sufficient to ensure compliance with the provisions of this part. (See §20.2102 for record keeping requirements relating to these programs.)
- (b) The licensee shall use, to the extent practicable, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable (ALARA).
- (c) The licensee shall periodically (at least annually) review the radiation protection program content and implementation.

(d) To implement the ALARA requirements of §20.1101(b), and notwithstanding the requirements in §20.1301 of this part, a constraint on air emissions of radioactive material to the environment, excluding Radon-222 and its daughters, shall be established by licensees other than those subject to §50.34a, such that the individual member of the public likely to receive the highest dose will not be expected to receive a total effective dose equivalent in excess of 10 mrem (0.1 mSv) per year from these emissions. If a licensee subject to this requirement exceeds this dose constraint, the licensee shall report the excess as provided in §20.2203 and promptly take appropriate corrective action to ensure against recurrence.

[56FR23396, May21, 1991, amended at 61 FR 65127, Dec. 10. 1996]

#### §20.1208 Dose to an Embryo/Fetus.

(a) The licensee shall ensure that the dose to an embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv). (For record keeping requirements, see §20.2106.)

(b) The licensee shall make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman so as to satisfy the limit in paragraph (a) of this section.

(c) The dose to an embryo/fetus shall be taken as the sum of--

(1) The deep-dose equivalent to the declared pregnant woman; and

(2) The dose to the embryo/fetus from radionuclides in the embryo/fetus and radionuclides in the declared pregnant woman.

(d) If the dose to the embryo/fetus is found to have exceeded 0.5 rem (5 mSv), or is within 0.05 rem (0.5 mSv) of this dose, by the time the woman declares the pregnancy to the licensee, the licensee shall be deemed to be in compliance with paragraph (a) of this section if the additional dose to the embryo/fetus does not exceed 0.05 rem (0.5 mSv) during the remainder of the pregnancy.

- For further information on the Stony Brook University Hospital Environmental Health and Safety Policy and Procedure Manual please see: <https://ehs.stonybrook.edu/resources/ehs-policies-and-procedures/university-hospital-policies-and-procedures>

## **EDUCATION POLICIES AND PROCEDURES**

The application of theory learned in the classroom is applied to the clinical environment throughout the student's clinical education sessions.

The clinical instructor(s) maintains all ongoing processes where the student must:

- Observe the Instructor perform the specific procedure.
- The student will assist the instructor perform the specific procedure.
- Have the instructor observe the student enact the same procedure.
- Have the instructor critique and correct any possible errors.
- Prior to the student's attempt to satisfy a specific performance objective, the instructor must observe the student successfully perform the procedure a minimum of three times.
- Having satisfied the above criteria, the student can request, at their own discretion, the Instructor evaluate their performance of objective(s).
- The student must perform each step of the procedure correctly to be successful in
- satisfying any attempted objective.
- Competencies must begin in the fourth month of the clinical component of the program.

Clinical competency evaluation forms are maintained to record student grades and progress and to communicate their performance. All records are maintained in the Program Director's Office. A student not successful in completing their clinical requirements will be **ineligible** for graduation. The program uses the clinical behavioral evaluation form, performance objectives, and clinical testing schedule to document and evaluate the clinical practicum.

All educational activities of the Medical Dosimetry Program are maintained with various channels of communication. Methods of communication include, but are not limited to, scheduled clinical site visits by the program director, intermittent telephone calls, written correspondence, advisory committee meetings, and formal and informal conversations with the Clinical Supervisor, and formal student/program director meetings.

Any claims by a student that there has been a violation, misinterpretation, or inequitable application of any existing policy, procedure, regulation or grade challenge within the clinic shall be documented in writing and given to the Program Director. It will be reviewed with a recommendation submitted within 7 days. If upon review the student is unsatisfied with said results the claim shall be submitted in writing to the Chair of the Health Science Department. All grievances will be reviewed by the Chair within 30 days. If the Chair cannot adjudicate the issue, it will be brought to the Academic Standing Committee as is documented in the School of Health Technology and Management's Policy and Procedure Manual under the academic standing policy. A record of the grievance and its resolution will be maintained.

## **FACULTY POLICY: CLINICAL OBJECTIVES AND ASSIGNMENTS** **EVALUATIONS**

The Program Educational Coordinator or Program Director will explain all objectives and assignments to the student at the beginning of each clinical phase when appropriate.

1. Clinical education is provided by a series of clinical assignments. Each student will have assignments that include treatment planning for each of the following:

- a. Head and Neck
- b. Lung
- c. GU
- d. IMRT
- e. Lymphoma
- f. Breast
- g. Brachytherapy
- h. GI
- i. Gyn
- j. Melanoma/Sarcoma
- k. CNS

2. The clinical assignments will be graded using the following criteria: Student performance of standard tasks on each service will be evaluated using competency test. Each competency test consists of performing all dosimetric services required for a selected patient treated with a given treatment technique. The competency should be completed by the end of the rotation on the service. The student is required to practice the entire task and then, with the clinical instructor, choose a patient submitted for dosimetry or a specified patient data set to be the competency test case. The student will then be required to perform all necessary dosimetric services for that patient - beam on time or monitor unit calculations, computer plans, etc. - with all work checked by the Clinical Instructor. The clinical competency tests will be evaluated by the Clinical Instructor on the basis of Pass/Fail (P/F). A failure must be repeated. Each task in the competency will be assigned a score of Exceeds expectation (A), Satisfactory (B), Needs Improvement (C), or Unsatisfactory (F). The letter grade for the competency will be determined from these scores. The clinical course grade will be determined from the competency grades earned during the semester. Competency tests are listed below:

#### Brachytherapy

1. Tandem and Ovoid Implant
2. Prostate Seed Implant

#### Breast

3. Intact Breast Tangentials
4. Chest Wall Tangentials: Bolus and Non Bolus
5. Intramammary Chain Composite

#### GI

6. 3-Field Pelvis with Wedges
7. 4-Field Pancreas or Abdomen

#### Head and Neck

8. Head and Neck Plan: Primary, Off Cord, Boost, Supraclav

9. Electron Planning

Lymphoma

- 10. Mantle/Mini Mantle
- 11. Para-aortic or Lower Nodal XRT
- 12. Thorax Sagittal for Gapped Fields

Melanoma/Sarcoma

- 13. Sarcoma Limb

Thoracic

- 14. 4 Field Lung (Primary and Off Cord)
- 15. CNS

CNS Conformal/Image Fusion

- 16. Cranio-Spinal with Gaps and Feathered Borders

GU

- 17. IMRT/Conformal Prostate

Head and Neck or Breast or Lymphoma

- 18. IRREG Calculation

**3. Student Supervision**

All students will work under the direct supervision of a Qualified Medical Dosimetrist. The supervising Medical Dosimetrist must verify the accuracy of any work performed by a student, and sign the work before it is used for patient treatment. All work will then be checked by another Medical Dosimetrist before use. Under no circumstances is the student allowed to be the only person to sign work that is included in a patient record or used for patient treatment.

**4. Evaluation**

The student will receive an evaluation for each area of competency within the clinical schedule. All professional staff that had the opportunity to work with the student will be asked to provide input in the student's written evaluation.

The student will review the evaluation with the Program Director or Program Clinical Coordinator. The student will, upon request, have an opportunity to meet with the specific evaluators. This process is intended to promote open discussion of the student's clinical progress. Frequent feedback to the student is a vital part of his/her professional success.

Each student will be requested to complete a general evaluation of the clinical instructor at the end of each clinical phase. The clinical instructor evaluations must be completed

and turned in with the competencies for grading. These evaluations will provide valuable feedback to the appropriate personnel within the institution.

## 5. Clinical Competencies

A competency checklist/evaluation for each category and/or a course grade is used to assess student performance. Students must meet clinical competencies in all categories to be eligible for program completion. If the required number of clinical competencies is not completed in a reasonable time frame, the student will be placed on clinical probation. At that point he/she must successfully complete his/her next three rotations. Only one clinical probation period is allowed for each student during his/her tenure as a student.

## 6. Grading

The Program Director or the Program Clinical Coordinator, with input from other appropriate personnel, is responsible for submitting the final grade for each evaluation and rotation. This final grade will be based on the performance evaluation, clinical assignments, and overall professional conduct as referred to in that section of the student handbook.

### ICRU 50/62 GUIDELINES

Dosimetry students must fully understand the following concepts in depth while doing their competency in respective anatomical sites.

- Volumes are defined:
  - Gross Tumor Volume (GTV): Gross palpable or visible/demonstrable extent and location of malignant growth
  - Clinical Target Volume (CTV): Anatomical concept. Tissue volume that contains a GTV and/or subclinical microscopic malignant disease, which has to be eliminated. This volume has to be treated adequately in order to achieve the aim of therapy: cure or palliation. The CTV is an anatomical-clinical concept, that has to be defined before a choice of treatment modality and technique is made
  - Planning Target Volume (PTV): Geometrical concept. Defined to select appropriate beam sizes and beam arrangements, taking into consideration the net effect of all the possible geometrical variations and inaccuracies in order to ensure that the prescribed dose is actually absorbed in the CTV. Its size and shape depend on the CTV but also on the treatment technique used, to compensate for the effects of organ and patient movement, and inaccuracies in beam and patient setup
  - Treated Volume: Volume enclosed by an isodose surface (e.g. 95% isodose), selected and specified by radiation oncologist as being appropriate to achieve the purpose of treatment. Ideally, Treated Volume would be identical to PTV, but may also be considerably larger than PTV
  - Irradiated Volume: Tissue volume which receives a dose that is considered significant in relation to normal tissue tolerance. Dose should be expressed either

- in absolute values or relative to the specified dose to the PTV
  - Organs at Risk: Normal tissues whose radiation sensitivity may significantly influence treatment planning and/or prescribed dose
- Recommendations for Reporting Dose
  - ICRU Reference Point:
    - Dose at the point should be clinically relevant and representative of the dose throughout PTV
    - The point should be easy to define in a clear and unambiguous way
    - The point should be selected where the dose can be accurately determined (physical accuracy)
    - The point should be selected in a region where there is no steep dose gradient
    - ICRU Reference point should be located at the center of the PTV and when possible at the intersection of the beam axes
    - The dose at the ICRU Reference Point is the ICRU Reference Dose
  - Dose at/near center of PTV, maximum dose to PTV, and minimum dose to PTV should always be reported
  - Maximum Dose: Highest dose in PTV. A volume is considered clinically meaningful if its minimum volume exceeds 2cc; however, if it occurs in a small organ (e.g. the eye, optic nerve, larynx), a dimension smaller than 2cc has to be considered.
  - Minimum Dose: Lowest dose in PTV. In contrast to Maximum Dose, no volume limit is recommended.
  - Hot Spots: Volume outside the PTV which receives dose larger than 100% of the specified PTV dose. In general, considered significant only if minimum diameter exceeds 15 mm; however, if it occurs in a small organ (e.g. the eye, optic nerve, larynx), a dimension smaller than 15 mm has to be considered
  - Levels of Dose Evaluation for Reporting:
    - Basic: Only dose at ICRU Reference Point and its variation along a central beam axis is available
    - Advanced: Dose distribution can be computed for plane(s)
    - Developmental: Dose distribution can be computed for volume(s)

The minimum criterion to derive an optimal plan is that on average more than 99% of the CTV should at least get 95% of the prescription dose and the heterogeneity in dose delivery to the PTV should be kept within 95 and 107% (ICRU-50, p. 20).

In addition, the student will be tested on the following measures and concepts (ICRU 62) for the competency plan generated.

1. Internal Margin and Set-up Margin
2. Combining margins
3. Planning Organs at Risk Volumes (PRV)
4. Conformity Index

**GRADING SYSTEM**

A	(93 - 100)	A-	(90 - 92)	B+	(87 - 89)	B	(83 - 86)
B-	(80 - 82)	C+	(77 - 79)	C	(73 - 76)	C-	(70 - 72)
D+	(67 - 69)	D	(60 - 66)	F	(<60)		

P/E – Pass / Excellent Performance - Will be applied for grades of 90 and above

P/S – Pass / Satisfactory Performance - Will be applied for grades of 75 and above

\*I – Incomplete – Will be applied if there is missing grades for material assigned

F – Fail - Will be applied if grades below 75

\*This grade will be given at the discretion of the faculty preceptor and the approval of the program director. It is the responsibility of the student to arrange with the necessary faculty to complete work in the given timeline.

**Medical Dosimetry Program**

## Mini Course Grade

**Course Name:** \_\_\_\_\_

**Instructor(s):** \_\_\_\_\_

**Semester:** \_\_\_\_\_

**Student Name:** \_\_\_\_\_

**Grade:** \_\_\_\_\_

**After each course, grades may be obtained from the Program Director.**

**Instructor's Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Instructor: Please fill out reverse side.**

**Side A**

### Behavioral Objectives Evaluation

Instructor/Evaluator: place X in appropriate box in left column

**Student:** \_\_\_\_\_

**Semester:** \_\_\_\_\_

**Attendance:**

- \_\_\_\_\_ The student has maintained good attendance and calls in at the specified time to notify staff of his/her absence(s).
- \_\_\_\_\_ The student's attendance is marginal but calls in on time when absent.
- \_\_\_\_\_ After repeated warnings the student's attendance remains poor and student continues to call in late to notify staff of absence.

**Punctuality:**

- \_\_\_\_\_ The student is on time each day and prepared to begin the clinical assignment.
- \_\_\_\_\_ The student makes little effort to arrive on time after a verbal warning.
- \_\_\_\_\_ The student is consistently more than five minutes late and unprepared to begin.

**Perseverance:**

- \_\_\_\_\_ If the student is not successful in performing an assigned task for the first time, he/she will seek advice as to what they are doing wrong and make a second attempt to succeed without prodding. This student demonstrates initiative.
- \_\_\_\_\_ If the student's first attempt at performing a patient procedure is unsuccessful, the student is reluctant to seek advice on what action is needed to perform the task correctly. It is only after the instructor offers advice, will the student make a second attempt to complete the procedure successfully. This student demonstrates a moderate level of initiative.
- \_\_\_\_\_ Although receiving adequate instruction and supervision, the student becomes discouraged and frustrated when their first attempt at setting-up a patient procedure is unsuccessful. This student does not seek advice and assistance and when the instructor offers advice and/or assistance this student is often unwilling to make a second attempt for fear of failure. This student lacks initiative.

**Evaluator's Comments:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Instructor's Signature** \_\_\_\_\_

**Side B** R-5/27/11

**FACULTY POLICY ON MONTHLY BEHAVIORAL OBJECTIVES EVALUATION**

This form must be completed (including appropriate signatures) each month and due on the first day of the following month. Keep a copy of the completed form in your Clinical Handbook; give original to Marion Mraz.

**MONTHLY BEHAVIORAL OBJECTIVES EVALUATION**

\*Clinical Supervisor: place X in appropriate box in left column

**Student:** \_\_\_\_\_ **Month:** \_\_\_\_\_

**Attendance:**

\_\_\_\_\_ The student has maintained good attendance and calls in at the specified time to notify staff of his/her absence(s).

\_\_\_\_\_ The student's attendance is marginal but calls in on time when absent.

\_\_\_\_\_ After repeated warnings the student's attendance remains poor and continues to call in late to notify staff of absence.

**Punctuality:**

\_\_\_\_\_ The student is on time each day and prepared to begin the clinical assignment.

\_\_\_\_\_ The student makes little effort to arrive on time after a verbal warning.

\_\_\_\_\_ The student is consistently more than five minutes late and unprepared to begin.

**Perseverance:**

\_\_\_\_\_ If the student is not successful in performing an assigned task for the first time, he/she will seek advice as to what they are doing wrong and make a second attempt to succeed without prodding. This student demonstrates initiative.

\_\_\_\_\_ If the student's first attempt at performing a patient procedure is unsuccessful, the student is reluctant to seek advice on what action is needed to perform the task correctly. It is only after the instructor offers advice, will the student make a second attempt to complete the procedure successfully. This student demonstrates a moderate level of initiative.

\_\_\_\_\_ Although receiving adequate instruction and supervision, the student becomes discouraged and frustrated when their first attempt at setting-up a patient procedure is unsuccessful. This student does not seek advice and assistance and when the instructor offers advice and/or assistance this student is often unwilling to make a second attempt for fear of failure. This student lacks initiative.

**Evaluator's Comments:**


---



---



---

**Clinical Supervisor's Signature** \_\_\_\_\_ **Side A** R-4/30/2010

**MONTHLY OBSERVATION OF BEHAVIORAL, AFFECTIVE AND PERFORMANCE SKILLS****Student:** \_\_\_\_\_ **Month:** \_\_\_\_\_, 201\_\_\_\_\_

Instructor/Evaluator: please indicate performance by placing an X in the appropriate yes/no column. If a "No" is checked, please elaborate on the comments sheet.

YesNo

1. Student consistently presents a neat and professional appearance and in required uniform to include film and student ID badges.  
-----
2. Does this student exhibit confidence in approaching new tasks?  
-----
3. Is this student generally helpful in assisting staff and patients?  
-----
4. Does student occasionally appear disoriented or inconsistent?  
-----
5. Does student generally display a logical "common sense" approach to performing required tasks?  
-----
6. Does student have difficulty focusing on required tasks?  
-----
7. Does this student follow instructions/directions and work well under pressure?  
-----
8. Is student's confidence level shaken after committing an error?  
-----
9. Does this student handle constructive criticism in a positive manner?  
-----
10. Does this student tend to rationalize, argue, blame others for, or deny their errors?  
-----
11. Is this student's professional behavior and clinical skills progressing in accordance with expectations?  
-----
12. Does student assist in keeping their assigned workplace neat and orderly?  
-----
- 13a. Does this student generally demonstrate professional behavior and courtesy?  
-----
- 13b. Does this student work well with others and volunteer to assist those in need?  
-----
- 14a. Student actively seeks learning experiences and appears eager to demonstrate acquired knowledge.  
-----
- 14b. Student generally anticipates what is required for each patient procedure and performs task(s) without prodding.  
-----

**Instructors / Evaluators Comments Sheet: (Attach additional sheet if needed)**

Please use this form if you wish to elaborate upon the student's strengths and/or areas, that you feel, need improvement based upon the content of this evaluation and overall student/instructor/patient, interactions. And, to address any "No" answer(s) on page 3 of this student evaluation.

For this evaluation period the student's overall performance has been:

\_\_\_\_\_ Satisfactory \_\_\_\_\_ Unsatisfactory

Clinical Supervisor's Signature / Date:

Student's Signature / Date:

\_\_\_\_\_

\_\_\_\_\_

## CURRICULUM SUMMARY

<b>Health Science advancement requirements:</b> 91 credits must include all general education courses, 16 credits of science, 21 related elective credits		<b>First year of the Dosimetry program (Credit-bearing/senior year of the Health Science major)</b>		<b>Second year of the Dosimetry program (Non-credit bearing)</b>
<b>Advance and application requirements</b>		<b>Fall semester (15 credits)</b>	<b>Spring semester (16 credits)</b>	<b>Post-baccalaureate clinical year (non-credit, 12 months)</b>
16 credits of science which must include:  General physics  HAN 200  HAN 202	21 credits of related electives:  HAN 312  HAN 251	HAN 300  HAN 333  HAN 335  HAN 364  HAN 383  HAN 395	HAN 401  HAN 482  HAN 487  HAN 490  HAN 492	Clinical year training  Mini courses (description below)

### YEAR 1- Fall and Spring Semester of the Health Credit Bearing

HAN 300 Issues in Health Care (3 credits): This course provides students with an overview of the healthcare delivery system, including the roles of healthcare professionals and healthcare organizations. Through the use of didactic and experimental techniques, the students will explore issues regarding healthcare insurance, the uninsured and underserved, managed care, and changes in the healthcare marketplace. Overview of major diseases including epidemics, chronic and acute illness will be covered. It also discusses the role of health promotion, disease prevention, and the uses of alternative and complementary medicines. Prerequisite: Advancement to Health Science Senior Year Curriculum - HANBS

HAN 333 Communication Skills (3 credits): This course introduces the principles of effective communication as well as the stages of group development. It offers theory and practice of interpersonal and group communication in relation to health care. Prerequisite: Advancement to Health Science Senior Year Curriculum - HANBS

HAN 335 – Professional Ethics in Healthcare (3 credits): This course provides Students with a framework for examining ethical dilemmas in professional healthcare settings and the skills and resources for implementing solutions. In addition to formal lectures, ethical issues regarding topics as reproduction, death and dying, transplants, HIV/AIDS, advance directives, and disability concerns will be addressed by group presentations and discussed in large/small group activities. The course introduces students to the six step ethical decision-making process in order

to provide the most caring response to the patient, the importance of respecting patient's rights, maintaining confidentiality and honoring professional codes of ethics. Students will evaluate ethical dilemma situations and explore approaches for resolving conflicts. Prerequisite: Advancement to Health Science Senior Year Curriculum - HANBS

HAN 364 Contemporary Issues in Health Informatics (3 credits): This course explores contemporary health informatics issues through lectures, published articles, class discussion, and web sites. Each semester, topics are chosen according to a theme, in addition to introductory overview topics. The topics for fall will include an overview of healthcare informatics as well as emerging applications. Prerequisite: Advancement to Health Science Senior Year Curriculum - HANBS

HAN 383 Scholarly Writing in Health Science (3 credits): This course is designed to challenge the undergraduate student to improve their skills in scholarly writing and professional communications through a variety of written and verbal formats in a logical, straightforward style. Students will be shown strategies for writing with purpose, supporting detail, and organization. Students will be required to write for a variety of audiences and will conduct a limited literature review, design a research proposal, and create an evidence-based program to be presented to the class. Prerequisite: HAN 251; Advancement to Health Science Senior Year Curriculum – HANBS

HAN 395 Radiation Physics in Medicine (4 credits): This course provides the student interested in a career in either medical imaging or radiation therapy/oncology with an introduction to Radiological and Radiation Oncology Physics. Elements of mathematics and general physics relevant to the Radiological Sciences are presented. Topics of study include production of radiation, radioactivity, interaction of radiations with matter, radiation detection, characteristics of high energy medical LINAC radiation, absorbed dose calculation and measurement, radiography, radionuclide imaging, imaging with ultrasound and imaging with magnetic resonance, and basic medical radiation safety. Prerequisite: Advancement to Health Science Senior Year Curriculum - HANBS

HAN 401 Radiobiology and Health Physics (3 credits): Presents an overview of the biological effects of radiation by examining the interaction of radiation with matter, macromolecules, cells, tissue and the whole body. Studies the clinical impact of responses to radiation. Introduces students to radiation safety through topics such as biologic consequences of irradiation, regulatory limitation of exposure, methods for exposure minimization, and radiation monitoring. Restricted to students approved for appropriate senior year track in the Health Science major. Prerequisite: HAN 395.

HAN 482 Introduction to Pathology (3 credits): Pathology is the branch of medicine devoted to the study and understanding of disease. This course will introduce the student to the concept of disease. The types of growth, causative factors and biological behavior of neoplastic diseases are discussed. Staging procedures are introduced. Restricted to students approved for appropriate senior year track in the Health Science major.

HAN 487 Introduction to Treatment Planning (3 credits): Provides a detailed exploration of treatment planning in the field of radiation therapy. Includes, but is not limited to, in-depth

instruction in planning algorithms, data transfer, dose computation, plan evaluation and implementation, and Quality Assurance (QA). Reviews and discusses a variety of treatment planning systems and treatment machines. Restricted to students approved for appropriate senior year track in the Health Science major.

HAN 490 Fundamentals of Medical Dosimetry and Contouring (3 credits): Covers a variety of Radiation Therapy disease sites that are fundamental to the planning competencies required during the clinical year. Includes radio-geographical cross-sectional anatomy using Computerized Tomography (CT), Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI) imaging; full-body anatomical contouring; tolerance doses for critical organs; patient treatment setup; immobilization devices; beam modifiers; Dose Volume Histograms and electron planning including but not limited to 3 Dimensional (3D) planning vs. Intensity Modulated Radiation Therapy (IMRT) of all competency sites. Discussions include Radiation Therapy Oncology Group (RTOG) protocols of all competency sites. Restricted to students approved for appropriate senior year track in the Health Science major.

HAN 492 Radiation Oncology/Medical Physics II (4 credits): Provides students interested in a career in medical dosimetry with an introduction to medical physics for radiation oncology. This is the second course in a two-part series that provides the basis for further study of the applications of radiation oncology physics to radiation treatment planning and radiation dose calculations. Covers topics such as radiation dose distribution, patient dose calculations, treatment planning, electron beam therapy, brachytherapy, modern treatment delivery, and radiation protection. Restricted to students approved for appropriate senior year track in the Health Science program.

### **YEAR 2 – Non Credit Clinical Year:**

**Calendar of mini courses will be provided the first day of orientation**  
**Summer Semester – Year 2**

#### **1. Principles and Concepts of External Beam Treatment Planning/Introduction to Practical Medical Dosimetry**

- a. **Duration:** 24 hours
- b. **Instructor:** TBA
- c. **Text Book:** Physics of Radiation Therapy, Faiz M. Khan, Ph.D.
- d. **Course Description:**

This course will introduce dosimetry parameters, outline radiation physics terminology, and present basic calculations that will be expected in the clinical setting. There will be a basic math review and lectures detailing clinical duties. The students will be instructed in the day to day duties of the clinical dosimetrist. The students will learn to read and understand patient radiotherapy treatment records, simulation parameters, patient setup and treatment parameters. They will learn skills such as estimating effective field size, checking charts, ascertaining match between prescription and chart dosing, and performing dosimetry calculations such as photon and electron beam monitor unit and point dose calculations. The instructor will provide many in class problems and examples. Clinical calculation forms and beam data tables and graphs will be provided.

## 2. Radiation Protection, Regulations and QA Programs

- a. **Duration:** 18 hours
- b. **Instructor:** TBA
- c. **Text Book:** Physics of Radiation Therapy, Faiz M. Khan, Ph.D.
- d. **Course Description:**

This course will introduce the students to the radiobiological effects of radiation from natural vs. synthetic sources. Students will gain knowledge of stochastic vs. non-stochastic effects and ALARA. Protection and regulations under the Homeland Security guidelines in accordance with SBUMC's guidelines and procedures will also be covered. Students will be taught about the quality factors of various radioactive particles used in radiation oncology (alpha/beta/neutrons). Concepts of exposure in LDR vs. HDR sources along with annual dose limits for general public, radiation personnel, fetal monitoring and pregnancy guidelines will be reviewed.

## 3. Computerized External Beam Radiation Treatment Planning Techniques

- a. **Duration:** 36 hours
- b. **Instructor:** TBA
- c. **Text Book:** N/A
- d. **Course Description:**

This hands-on laboratory course in site specific treatment planning will cover a variety of radiation therapy disease sites. During the labs, students are assigned cases which have been carefully selected from an extensive anonymous patient data base. The specific goals for these assignments are established by the instructor, and the resulting plans are carefully reviewed and critiqued. Following the critiques, the students are expected to revise and improve their treatment plans before final submission. Student treatment plans are evaluated and graded according to the quality of the plan and how closely it meets the goals. Site Specific Planning Competency forms are used to document progress and are kept by each student as part of a clinical folio.

## 4. Introduction to Computer Systems and Networking

- a. **Duration:** 12 hours
- b. **Instructor:** TBA
- c. **Text Book:** N/A
- d. **Course Description:**

This course will introduce students to treatment planning computer concepts and transfer of data to remote sites following national protocols and guidelines. Hardware, software and networking terminology definitions and their applications in regards to radiation oncology will be reviewed.

## 5. Practical Work Experience in Medical Dosimetry

- a. **Duration:** Ongoing – June through May (30 weeks FTE)
- b. **Instructor/mentor:** Clinical Supervisor and Medical Dosimetrist and Medical Physics Staff

- c. **Text Book:** Physics of Radiation Therapy, Faiz M. Khan, Ph.D.
- d. **Course Description:**  
Under direct supervision, trainees will assist with all medical dosimetrist duties including conventional simulation, manual contouring, fabrication of immobilization devices, fabrication of custom blocks, CT/Simulation, treatment preparation, isodose planning, chart review, MU calculation, record and verify (VARiS) data entry and review, brachytherapy source handling, electron cutout factor determination, and clinical diode dosimetry. After appropriate skills have been developed and cognitive goals have been reached actual patient treatment planning assignments will be completed, and documented. Students will be responsible for all aspects of treatment planning including patient data acquisition, plan generation, presentation of plan to supervisor and responsible physician, monitor unit calculation, and chart review. Each student will be assigned a minimum of 3 treatment plans for each anatomic site listed in the appendix (appendix A – Treatment Planning site competencies). Completion of all of the treatment site competencies to the satisfaction of the Medical Dosimetrist Clinical Coordinator is a pre-requisite for graduation from this program with a certificate.

### **Fall Semester – Year -2**

#### **1. Quality Assurance and Measurement of Beam Characteristics**

- a. **Duration:** 18 hours
- b. **Instructor:** TBA
- c. **Text Book:** N/A
- d. **Course Description:**  
This course will provide the students with information regarding the concepts of acceptance testing, annual, monthly, and daily QA. The importance of these activities and the pass/fail tolerances of the QA procedures will also be taught. The relevance of such procedures and the effects on patient care will be discussed. Maintenance, commissioning, and daily usage of various radiation oncology equipment such as linear accelerators, CT simulators, planning systems, digitizers and survey meters will be reviewed and discussed in detail. Students will have the opportunity for “hands on” setup and use of ion chamber, diode, and film dosimetry. They will also observe the use of daily and monthly beam QA check devices.

#### **2. Clinical Electron Beam Therapy Treatment Planning & MU Calculations.**

- a. **Duration:** 18 hours
- b. **Instructor:** TBA
- c. **Text Book:** N/A
- d. **Course Description:**  
This course allows students “hands on” opportunity to determine block correction factor (BCF) and inverse correction factor (ICF) by measurement methods. Students will also perform MU calculations. Particular attention will be paid to use of bolus and bolus compensators, the effect of oblique incidence, surface and internal shielding, effects of heterogeneities, electron/electron and electron/photon field matching, and energy selection.

---

## Spring Semester – Year 2

### 1. Advanced Techniques: Stereotactic Radiosurgery and IMRT

a. **Duration:** 18 hours

b. **Instructor:** TBA

c. **Text Book:** N/A

d. **Course Description:**

This course is the introduction of complex beam arrangements and algorithms for intra- and extra-cranial tumors from the perspective of hypofractionation. Concepts of Gamma Knife, Exact Trac, benign and malignant brain tumors, dose fractionation, schemes for tumors vs. organs at risk, integral doses will be identified and discussed. Immobilization, Winston-Lutz tests, isocenter verification and daily setup error concepts will be demonstrated.

### 2. Radiobiology for Radiation Oncology

a. **Duration:** 15 hours

b. **Instructor:** TBA

c. **Text Book:** N/A

d. **Course Description:**

This course will provide the students with the necessary knowledge of Oncologic diseases, their algorithms, response rates, curative factors, etiology and histology thereof. They will receive a historical introduction in the form of ionizing radiation and biological review. They will learn Molecular effects of radiation, LET cellular effects of radiation, cell survival curves repair and radio sensitivity, RBE and Radiation effect.

### 3. Clinical Brachytherapy Physics

a. **Duration:** 24 hours

b. **Instructor:** TBA

c. **Text Book:** N/A

d. **Course Description:**

This course will introduce the students to clinical and theoretical aspects of brachytherapy. They will be taught about the various radioactive sources used in the clinic and the appropriate handling methods under ALARA guidelines. Students will learn assay methods, wipe tests, source transfer and shielding methods. Instructor will update the class regarding new Homeland Security guidelines in relationship to Radioactive source storage and handling. They will be taught concepts regarding half-life, average-life, dose prescription for sources used in brachytherapy.

## Appendix A

### SCHOOL OF HEALTH TECHNOLOGY & MANAGEMENT SAFETY INCIDENT REPORT

#### PROCEDURE

(to be filled out and filed by the faculty member)

Please keep a copy of the attached form within your class material for each class so that it is readily available for your reference. The form should be filled out and signed by you and by the student involved.

NOTE: THIS REPORT SHOULD BE FILED AS SOON AFTER AN INCIDENT HAS OCCURRED AS IS REASONABLY POSSIBLE (24-48 HRS). THIS REPORT IS CONFIDENTIAL TO THE DEPARTMENT CHAIR AND THE DEAN'S OFFICE AND AS SUCH SHOULD NOT BE AVAILABLE TO ANY OTHER PERSON.

It is suggested that, as soon as possible, in addition to this report you request the student or faculty member, (not the patient or guest), to write out his/her perception of the incident and add this to your report.

#### **\*\*EMERGENCY PHONE NUMBERS\*\***

**Dial 333 or 911** UNIVERSITY POLICE from campus phone for Fire, Police, Medical, or Environmental  
**Dial 444-7767** for EMPLOYEE HEALTH

The supervising faculty member must report all untoward incidents:

- (1) involving the health of a patient under student or faculty care; or
- (2) incidents involving the health of students, faculty or guests, which occur within the school environment or at a clinical practice site. The report must be in writing to the department chair AND through the department to the office of the Dean within 24-48 hours.

PRACTICE SITE: \_\_\_\_\_ FILING DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

Student Involved: \_\_\_\_\_ SBU ID#: \_\_\_\_\_

Program: \_\_\_\_\_ Was this person on clinical assignment? \_\_\_\_\_

Name of other person directly involved: \_\_\_\_\_

Is this person a: (circle one) patient student faculty member other \_\_\_\_\_

Date of incident: \_\_\_\_\_ Time of incident: \_\_\_\_\_

Was a witness present when this incident occurred? \_\_\_\_\_. If yes, give name & address of this person:

Name: \_\_\_\_\_ Relationship to site: \_\_\_\_\_

Address: \_\_\_\_\_

Exact Location where incident occurred: \_\_\_\_\_

Description of incident (Detail what person was doing, and what procedures, instruments, equipment, structures, or fixtures were involved): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(Continued on page 2)

**SHTM Safety Incident Report Page 2**

Nature of injury, if any: \_\_\_\_\_  
\_\_\_\_\_

Did the incident require emergency treatment? \_\_\_\_\_ By whom? \_\_\_\_\_

Where was emergency treatment given? \_\_\_\_\_

Was hospitalization necessary: \_\_\_\_\_ If yes, where? \_\_\_\_\_

Give general description of emergency treatment:  
\_\_\_\_\_  
\_\_\_\_\_

Signature of student: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of reporting person: \_\_\_\_\_ Date: \_\_\_\_\_

Disposition of this report: \_\_\_\_\_  
\_\_\_\_\_

Signature of person filing this report: \_\_\_\_\_ Date: \_\_\_\_\_

Disposition of this report or action taken by department: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature of department chair: \_\_\_\_\_ Date: \_\_\_\_\_

Disposition of this report or action taken by dean's office: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature of Dean or Dean's designee: \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix B – Grading Tools/Forms

### COMPETENCY CHECK LIST

Student Name: \_\_\_\_\_

Area of Competency	Evaluator	Date Performed	Grade
4 Field Pancreas			
3 Field Pelvis w/ Wedges			
Prostate			
Sarcoma Limb			
Head and Neck Primary, Off Cord, Scav			
Electron Calc			
Intact Breast Tangents			
Chest Wall Tangents: Bolus			
Intra Mammary Chain			
4 Field Lung Primary and Off Cord			
Mantle/Mini Mantle			
Matching Fields: Gap Calc			
Para-aortic or Nodal Irradiation			
Cranio-Spinal w/ Gaps and Feathered Borders			
Larynx			
IRREG Planning			
Wing Field			
Tandem and Ovoid			
Prostate Implant			
HDR			
Observe SRS			

## Patient Summary Reports

**Patient MR Number:** \_\_\_\_\_

**Doctor Name:**

**Dosimetrist Name:**

**Patient Status (include site and disease):**

**Diagnosis, Stage, TNM:**

**Treatment Intent:**

**Prescription and why?(include machine and energy):**

**Expectation of disease progression w/ and w/o Tx(i.e. Patterns of spread and failure):**

**Any Concurrent therapy:**

**Expected boosts or C/D:**

**Field arrangement and why:**

**Any other techniques considered, why and why not:**

**Any current, prior or future treatments, overlapping fields:**

**Target coverage % maximum and minimum:**

**What normal tissue or critical structures in area:**

**What are the dose limits and consequences if exceeded?**

**Observations from Simulation:**

**Observations from initial set-up/treatment (report any modifications in set-up that differ from plan, any modifications in the RTP plan and how closely did portal film agree with sim films or DRR):**

Area of Treatment: \_\_\_\_\_

## Clinical Competency Evaluation Form

Please assign each task a score of **E** (exceeds Expectations), **S** (satisfactory), **NI** (Needs improvement), or **U** (unsatisfactory) as well as an overall **Pass** or **Fail**. Please score each competency attempt. Failures must be repeated.

Task	Task Started	Task Finished	Grade
Observes Simulation			
Transfers patient images and loads on planning computer			
Successfully localizes the Iso Ctr/QA			
Chooses optimal Calculation point			
Creates prescription to accommodate wedge options			
Correctly generates plan using appropriate blocks/wedges			
Produces plan calculations to verify MU setting			
Produces and interprets DVH's for indicated organs			
Performs daily checks /calculation: DSS calc			
Manual Calculation performed			
Transfer of data			
Enters correct data in Record and Verify			

**Evaluator comments:** \_\_\_\_\_

**Grade:** \_\_\_\_\_

## Appendix C

# Standards for an Accredited Educational Program in Medical Dosimetry

**EFFECTIVE JANUARY 1, 2014**

Adopted by:

**The Joint Review Committee on Education  
in Radiologic Technology - October 2013**

*Joint Review Committee on Education in Radiologic Technology  
20 N. Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
312.704.5300 • (Fax) 312.704.5304  
www.jrcert.org*

The Joint Review Committee on Education in Radiologic Technology (JRCERT) is dedicated to excellence in education and to the quality and safety of patient care through the accreditation of educational programs in the radiologic sciences.

The JRCERT is the only agency recognized by the United States Department of Education (USDE) and the Council on Higher Education Accreditation (CHEA) for the accreditation of traditional and distance delivery educational programs in radiography, radiation therapy, magnetic resonance, and medical dosimetry. The JRCERT awards accreditation to programs demonstrating substantial compliance with these **STANDARDS**.

## Introductory Statement

The Joint Review Committee on Education in Radiologic Technology (JRCERT) **Standards for an Accredited Educational Program in Medical Dosimetry** are designed to promote academic excellence, patient safety, and quality healthcare. The **STANDARDS** require a program to articulate its purposes; to demonstrate that it has adequate human, physical, and financial resources effectively organized for the accomplishment of its purposes; to document its effectiveness in accomplishing these purposes; and to provide assurance that it can continue to meet accreditation standards.

The JRCERT accreditation process offers a means of providing assurance to the public that a program meets specific quality standards. The process helps to maintain program quality and stimulates program improvement through program assessment.

There are six (6) standards. Each standard is titled and includes a narrative statement supported by specific objectives. Each objective, in turn, includes the following clarifying elements:

- **Explanation** - provides clarification on the intent and key details of the objective.
- **Required Program Response** - requires the program to provide a brief narrative and/or documentation that demonstrates compliance with the objective.
- **Possible Site Visitor Evaluation Methods** - identifies additional materials that may be examined and personnel who may be interviewed by the site visitors at the time of the on-site evaluation to help determine if the program has met the particular objective. Review of additional materials and/or interviews with listed personnel is at the discretion of the site visit team.

Following each standard, the program must provide a **Summary** that includes the following:

- Major strengths related to the standard
- Major concerns related to the standard
- The program's plan for addressing each concern identified
- Describe any progress already achieved in addressing each concern
- Describe any constraints in implementing improvements

**The submitted narrative response and/or documentation, together with the results of the on-site evaluation conducted by the site visit team, will be used by the JRCERT Board of Directors in determining the program's compliance with the STANDARDS.**

---

## Standards for an Accredited Educational Program in Medical Dosimetry

### Table of Contents

<b>Standard One: Integrity</b> .....	<b>4</b>
The program demonstrates integrity in the following: representations to communities of interest and the public, pursuit of fair and equitable academic practices, and treatment of, and respect for, students, faculty, and staff.	
<b>Standard Two: Resources</b> .....	<b>22</b>
The program has sufficient resources to support the quality and effectiveness of the educational process.	
<b>Standard Three: Curriculum and Academic Practices</b> .....	<b>34</b>
The program’s curriculum and academic practices prepare students for professional practice.	
<b>Standard Four: Health and Safety</b> .....	<b>46</b>
The program’s policies and procedures promote the health, safety, and optimal use of radiation for students, patients, and the general public.	
<b>Standard Five: Assessment</b> .....	<b>55</b>
The program develops and implements a system of planning and evaluation of student learning and program effectiveness outcomes in support of its mission.	
<b>Standard Six: Institutional/Programmatic Data</b> .....	<b>62</b>
The program complies with JRCERT policies, procedures, and <b>STANDARDS</b> to achieve and maintain specialized accreditation.	
<b>Awarding, Maintaining, and Administering Accreditation</b> .....	<b>70</b>

**Standard One**  
*Integrity*

**Standard One:**      **The program demonstrates integrity in the following:**

- **Representations to communities of interest and the public,**
- **Pursuit of fair and equitable academic practices, and**
- **Treatment of, and respect for, students, faculty, and staff.**

**Objectives:**

In support of **Standard One**, the program:

- 1.1 Adheres to high ethical standards in relation to students, faculty, and staff.
- 1.2 Provides equitable learning opportunities for all students.
- 1.3 Provides timely, appropriate, and educationally valid clinical experiences for each admitted student.
- 1.4 Limits required clinical assignments for students to not more than 10 hours per day and the total didactic and clinical involvement to not more than 40 hours per week.
- 1.5 Assures the security and confidentiality of student records, instructional materials, and other appropriate program materials.
- 1.6 Has a grievance procedure that is readily accessible, fair, and equitably applied.
- 1.7 Assures that students are made aware of the JRCERT **Standards for an Accredited Educational Program in Medical Dosimetry** and the avenue to pursue allegations of non-compliance with the **STANDARDS**.
- 1.8 Has publications that accurately reflect the program's policies, procedures, and offerings.
- 1.9 Makes available to students, faculty, and the general public accurate information about admission policies, tuition and fees, refund policies, academic calendars, clinical obligations, grading system, graduation requirements, and the criteria for transfer credit.
- 1.10 Makes the program's mission statement, goals, and student learning outcomes readily available to students, faculty, administrators, and the general public.
- 1.11 Documents that the program engages the communities of interest for the purpose of continuous program improvement.

- 1.12 Has student recruitment and admission practices that are non-discriminatory with respect to any legally protected status such as race, color, religion, gender, age, disability, national origin, and any other protected class.
- 1.13 Has student recruitment and admission practices that are consistent with published policies of the sponsoring institution and the program.
- 1.14 Has program faculty recruitment and employment practices that are non-discriminatory with respect to any legally protected status such as race, color, religion, gender, age, disability, national origin, and any other protected class.
- 1.15 Has procedures for maintaining the integrity of distance education courses.

**1.1 Adheres to high ethical standards in relation to students, faculty, and staff.*****Explanation:***

High ethical standards help assure that the rights of students, faculty, and staff are protected. Policies and procedures must be fair, equitably applied, and promote professionalism.

***Required Program Response:***

- Describe the procedure for making related policies and procedures known.
- Provide copies of policies and procedures that assure equitable treatment of students, faculty, and staff.

***Possible Site Visitor Evaluation Methods:***

- Review of student handbook
- Review of employee/faculty handbook
- Review of course catalog
- Review of student records
- Interviews with faculty
- Interviews with students
- Interviews with staff

**1.2 Provides equitable learning opportunities for all students.*****Explanation:***

The provision of equitable learning activities promotes a fair and impartial education and reduces institutional and/or program liability. The program must provide equitable learning opportunities for all students regarding learning activities and clinical assignments. If evening and/or weekend rotations are utilized, this opportunity must be equitably provided for all students.

***Required Program Response:***

Describe how the program assures equitable learning opportunities for all students.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of master plan of education
- Review of course objectives
- Review of student clinical assignment schedules
- Interviews with faculty
- Interviews with clinical preceptors
- Interviews with clinical staff
- Interviews with students

### **1.3 Provides timely, appropriate, and educationally valid clinical experiences for each admitted student.**

#### ***Explanation:***

Programs must have a process in place to provide timely, appropriate, and educationally valid clinical experiences to all students admitted to the program. Students must have sufficient access to an adequate variety and volume of planning processes to become competent in clinical practice. Clinical settings must provide a sufficient variety and volume to allow all students to achieve required program competencies. Clinical settings may include hospitals, clinics, specialty centers, and other facilities. With the exception of observation site assignments, students must be provided the opportunity to complete required program competencies during clinical assignments. Clinical placement must be non-discriminatory in nature and solely determined by the program.

Assignments to a treatment planning laboratory (ies), while educationally valid, shall not replace assignments to clinical settings.

A meaningful clinical education plan assures that activities are educationally valid and prevents the use of students as replacements for employees. The medical dosimetry student to clinical staff ratio must always be no more than 2:1.

Activities that have minimal educational value must be limited in scope.

Traditional programs that require students to participate in clinical education during evenings and/or weekends must assure that:

- students' clinical clock hours spent in evening and/or weekend assignments must not exceed 25% of the total clinical clock hours.
- program total capacity is not increased through the use of evening and/or weekend assignments.

The JRCERT defines the operational hours of traditional programs as Monday - Friday, 5:00 a.m. - 7:00 p.m.

Programs may permit students to make up clinical time during term or scheduled breaks; however, they may not be assigned to clinical settings on holidays that are observed by the sponsoring institution. Program faculty need not be physically present; however, students must be able to contact program faculty during makeup assignments. Also, the program must assure that its liability insurance covers students during these makeup assignments.

#### ***Required Program Response:***

- Describe the process for student clinical placement.
- Provide current student assignment schedules in relation to student enrollment.
- Describe how the program assures a 2:1 student to clinical staff ratio at all clinical settings.

- Describe how the program assures that all students have access to a variety and volume of procedures to achieve program competencies.
- Submit evening and/or weekend rotation(s) calculations, if applicable.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of listing of enrolled students in relation to clinical assignments, including evening and weekend, if applicable
- Review process of clinical placement
- Review of student clinical records
- Interviews with faculty
- Interviews with clinical preceptors
- Interviews with students

#### **1.4 Limits required clinical assignments for students to not more than 10 hours per day and the total didactic and clinical involvement to not more than 40 hours per week.**

***Explanation:***

This limitation helps assure that students are treated ethically. For the safety of students and patients, not more than ten (10) clinical hours shall be scheduled in any one day. Scheduled didactic and clinical hours combined cannot exceed forty (40) hours per week. Hours exceeding these limitations must be voluntary on the student's part.

***Required Program Response:***

- Describe the process for assuring that time limitations are not exceeded.
- Provide documentation that required student clinical assignments do not exceed ten (10) hours in any one day and the total didactic and clinical involvement does not exceed forty (40) hours per week.

***Possible Site Visitor Evaluation Methods:***

- Review of master plan of education
- Review of published program materials
- Review of student schedules
- Interviews with faculty
- Interviews with clinical preceptor(s)
- Interviews with clinical staff
- Interviews with students

**1.5 Assures the security and confidentiality of student records, instructional materials, and other appropriate program materials.**

***Explanation:***

Appropriately maintaining the security and confidentiality of student records and other program materials protects the student's right to privacy. Student records must be maintained in accordance with the Family Education Rights and Privacy Act (Buckley Amendment). If radiation monitoring reports contain students' dates of birth and/or social security numbers, this information must be maintained in a secure and confidential manner.

***Required Program Response:***

Describe how the program maintains the security and confidentiality of student records and other program materials.

***Possible Site Visitor Evaluation Methods:***

- Review of institution's/program's published policies/procedures
- Review of student academic and clinical records
- Tour of program offices
- Tour of clinical practice setting(s)
- Interviews with administrative personnel
- Interviews with faculty
- Interviews with clinical preceptor(s)
- Interviews with clinical staff
- Interviews with students

**1.6 Has a grievance procedure that is readily accessible, fair, and equitably applied.*****Explanation:***

A grievance is defined as a claim by a student that there has been a violation, misinterpretation, or inequitable application of any existing policy, procedure, or regulation. The program must have procedures to provide students an avenue to pursue grievances. The procedure must outline the steps for formal resolution of any grievance. The final step in the process must not include any individual(s) directly associated with the program (e.g., program director, clinical coordinator, clinical preceptors, diagnostic imaging department director). The procedure must assure timely resolution. The program must maintain a record of all formal grievances and their resolution. Records must be retained in accordance with the institution's/program's retention policies/procedures. The records must include information on how the grievance was resolved and assurance that there are no trends that could negatively affect the quality of the educational program.

Additionally, the program must have a procedure to address any complaints apart from those that require invoking the grievance procedure. The program must determine if a pattern of complaint exists that could negatively affect the quality of the educational program (e.g., cleanliness of the classroom).

***Required Program Response:***

Describe the nature of any formal grievance(s) that would jeopardize the program's ability to meet its mission.

Describe the nature of any complaint(s) that would jeopardize the program's ability to meet its mission.

Provide a copy of the grievance procedure.

Provide a copy of any formal grievance(s) resolution.

***Possible Site Visitor Evaluation Methods:***

- Review of institutional catalog
- Review of student handbook
- Review of formal grievance(s) record(s), if applicable
- Review of complaint(s) record(s), if applicable
- Interviews with faculty
- Interviews with students

**1.7 Assures that students are made aware of the JRCERT Standards for an Accredited Educational Program in Medical Dosimetry and the avenue to pursue allegations of non-compliance with the STANDARDS.**

***Explanation:***

The program must assure students are cognizant of the **STANDARDS** and must provide contact information for the JRCERT.

Students have the right to submit allegations against a JRCERT-accredited program if there is reason to believe that the program has acted contrary to JRCERT accreditation standards or that conditions at the program appear to jeopardize the quality of instruction or the general welfare of its students.

Contact of the JRCERT should not be a step in the formal institutional/program grievance procedure. The individual must first attempt to resolve the complaint directly with institution/program officials by following the grievance procedures provided by the institution/program. If the individual is unable to resolve the complaint with institution/program officials or believes that the concerns have not been properly addressed, he or she may submit allegations of non-compliance directly to the JRCERT.

***Required Program Response:***

- Describe the procedure for making students aware of the **STANDARDS**.
- Describe how students are provided contact information for the JRCERT.

***Possible Site Visitor Evaluation Methods:***

- Review of program publications
- Interviews with faculty
- Interviews with students

**1.8 Has publications that accurately reflect the program’s policies, procedures, and offerings.**

***Explanation:***

Maintaining published information regarding the program’s current policies, procedures, and offerings provides interested parties with an accurate overview of program requirements and expectations.

***Required Program Response:***

Provide program publications that reflect program policies, procedures and offerings.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of student handbook
- Interviews with faculty
- Interviews with students

**1.9 Makes available to students, faculty, and the general public accurate information about admission policies, tuition and fees, refund policies, academic calendars, clinical obligations, grading system, graduation requirements, and the criteria for transfer credit.**

***Explanation:***

The institutional and/or program policies must be published and made readily available to students, faculty, and the general public on the institution's/program's Web site to assure transparency and accountability of the educational program. For example, requiring the general public to contact the institution/program to request program information is not adequate. Policy changes must be made known to students, faculty, and the general public in timely fashion. It is recommended that revision dates be identified on program publications.

The institution and/or program must establish and publicly disclose the criteria used when determining the transfer of credit earned from other institutions and/or programs. Also, programs must publicly disclose a list of institutions with which the program has established an articulation agreement.

The program's academic calendar must be published and, at a minimum, identify specific start and end dates for each term, holidays recognized by the sponsoring institution, and breaks.

Student clinical obligations (e.g., drug screening, background checks, and associated fees) must be clearly identified in appropriate program publications. Additionally, if evening and/or weekend clinical assignments are required or if students must travel to geographically-dispersed clinical settings, this information must also be included.

***Required Program Response:***

- Describe how institutional and/or program policies are made known to students, faculty, and the general public.
- Provide publications that include these policies.

***Possible Site Visitor Evaluation Methods:***

- Review of institutional materials
- Review of published program materials
- Review of institutional and/or program Web site
- Interviews with faculty
- Interviews with Admissions personnel
- Interviews with Registrar
- Interviews with students

**1.10 Makes the program's mission statement, goals, and student learning outcomes readily available to students, faculty, administrators, and the general public.**

***Explanation:***

Program accountability is enhanced by making its mission statement, goals, and student learning outcomes available to the program's communities of interest on the institution's/program's Web site to assure transparency and of the educational program. Requiring the general public to contact the institution/program to request program information is not adequate.

**Example:**

**Mission:**

The mission of the medical dosimetry program is to prepare competent, entry-level medical dosimetrists able to function within the healthcare community.

**Goal: Students will be clinically competent.**

Student Learning Outcome: Students will develop a treatment plan.

Students will construct plans that spare excess radiation dose to normal tissues.

**Goal: Students will demonstrate communication skills.**

Student Learning Outcome: Students will demonstrate written communication skills.

Students will demonstrate oral communication skills.

**Goal: Students will develop critical thinking skills.**

Student Learning Outcome: Students will judge the quality of a completed treatment plan.

Students will modify an unacceptable treatment plan.

**Goal: Students will model professionalism.**

Student Learning Outcome: Students will demonstrate work ethics.

Students will summarize the value of life-long learning.

***Required Program Response:***

- Describe how the program makes its mission statement, goals, and student learning outcomes available to students, faculty, administrators, and the general public.
- Provide copies of publications that contain the program's mission statement, goals, and student learning outcomes.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of institutional and/or program Web site
- Interviews with administrative personnel
- Interviews with faculty
- Interviews with students

### **1.11 Documents that the program engages the communities of interest for the purpose of continuous program improvement.**

#### ***Explanation:***

Communities of interest are defined as institutions, organizations, groups, and/or individuals interested in educational activities in medical dosimetry. Obtaining formal feedback on program operations, student progress, employer needs, etc. from communities of interest allows the program to determine if it is meeting expectations and assures continuous program improvement. The program can use a variety of tools to obtain this feedback.

#### ***Required Program Response:***

- Describe the process of obtaining feedback.
- Provide representative samples of appropriate meeting minutes, evaluations (e.g., course and faculty), and surveys (e.g., graduate and employer).

#### ***Possible Site Visitor Evaluation Methods:***

- Review of meeting minutes
- Review of evaluations
- Review of surveys
- Interviews with members of various communities of interest

**1.12 Has student recruitment and admission practices that are non-discriminatory with respect to any legally protected status such as race, color, religion, gender, age, disability, national origin, and any other protected class.**

***Explanation:***

Non-discriminatory practices assure applicants have equal opportunity for admission. Statistical information such as race, color, religion, gender, age, disability, national origin, and any other protected class may be collected; however, this information must be voluntarily provided by the student. Use of this information in the student selection process is discriminatory.

***Required Program Response:***

- Describe how admission practices are non-discriminatory.
- Provide institutional and/or program admission policies.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of student records
- Interviews with faculty
- Interviews with Admissions personnel
- Interviews with students

**1.13 Has student recruitment and admission practices that are consistent with published policies of the sponsoring institution and the program.**

***Explanation:***

Defined admission practices facilitate objective student selection. In considering applicants for admission, the program must follow published policies and procedures.

***Required Program Response:***

- Describe the implementation of institutional and program admission policies.
- Provide institutional and program admission policies.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Interviews with faculty
- Interviews with Admissions personnel
- Interviews with students

**1.14 Has program faculty recruitment and employment practices that are non-discriminatory with respect to any legally protected status such as race, color, religion, gender, age, disability, national origin, and any other protected class.**

***Explanation:***

Recruitment and employment practices that are non-discriminatory assure fairness and integrity. Equal opportunity for employment must be offered to each applicant. Employment practices must be applied equitably to all faculty.

***Required Program Response:***

- Describe how non-discriminatory employment practices are assured.
- Provide copies of employment policies and procedures that assure non-discriminatory practices.

***Possible Site Visitor Evaluation Methods:***

- Review of employee/faculty handbook
- Review of employee/faculty application form
- Review of institutional catalog
- Interviews with faculty

**1.15 Has procedures for maintaining the integrity of distance education courses.*****Explanation:***

Programs that offer distance education must have processes in place that assure that the students who register in the distance education courses are the same students that participate in, complete, and receive the credit. Programs must verify the identity of students by using methods such as, but not limited to: secure log-ins, pass codes, and/or proctored exams. These processes must protect the student's privacy. Student costs associated with distance education must be disclosed.

***Required Program Response:***

- Describe the process for assuring the integrity of distance education courses.
- Provide published program materials that outline procedures for maintaining integrity of distance education courses.
- Provide published program materials that identify associated fees for students enrolled in distance education courses.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review the process of student identification
- Review of student records
- Interviews with faculty
- Interviews with students

### Summary for Standard One

1. List the major strengths of **Standard One**, in order of importance.
2. List the major concerns of **Standard One**, in order of importance.
3. Provide the program's plan for addressing each concern identified.
4. Describe any progress already achieved in addressing each concern.
5. Describe any constraints in implementing improvements.

**Standard Two:*****Resources***

**Standard Two: The program has sufficient resources to support the quality and effectiveness of the educational process.**

**Objectives:**

In support of **Standard Two**, the program:

**Administrative Structure**

- 2.1 Has an appropriate organizational structure and sufficient administrative support to achieve the program's mission.
- 2.2 Provides an adequate number of faculty to meet all educational, program, administrative, and accreditation requirements.
- 2.3 Provides faculty with opportunities for continued professional development.
- 2.4 Provides clerical support services, as needed, to meet all educational, program, and administrative requirements.

**Learning Resources/Services**

- 2.5 Assures JRCERT recognition of all clinical practice settings.
- 2.6 Provides classrooms, laboratories, and administrative and faculty offices to facilitate the achievement of the program's mission.
- 2.7 Reviews and maintains program learning resources to assure the achievement of student learning.
- 2.8 Provides access to student services in support of student learning.

**Fiscal Support**

- 2.9 Has sufficient ongoing financial resources to support the program's mission.
- 2.10 For those institutions and programs for which the JRCERT serves as a gatekeeper for Title IV financial aid, maintains compliance with United States Department of Education (USDE) policies and procedures.

## **2.1 Has an appropriate organizational structure and sufficient administrative support to achieve the program's mission.**

### ***Explanation:***

The program's relative position in the organizational structure helps facilitate appropriate resources and assures focus on the program. To operate effectively, the program must have sufficient institutional administrative support. Both organizational structure and administrative support enable the program to meet its mission and promote student learning.

### ***Required Program Response:***

- Describe the program's relationship to the organizational and administrative structures of the sponsoring institution and how this supports the program's mission.
- Provide institutional and program organizational charts.

### ***Possible Site Visitor Evaluation Methods:***

- Review of organizational charts of institution and program
- Review of meeting minutes
- Review of published program materials
- Review of master plan of education
- Interviews with faculty and institutional officials
- Interviews with clinical preceptor(s)

## **2.2 Provides an adequate number of faculty to meet all educational, program, administrative, and accreditation requirements.**

### ***Explanation:***

An adequate number of faculty promotes sound educational practices. A full-time program director is required. The program director may also be identified as the radiation therapy program director. Faculty teaching loads and release time must be consistent with those of comparable faculty in other health science programs in the same institution.

Additionally, a full-time equivalent educational coordinator is required if the program has more than thirty (30) students enrolled in the clinical component of the program. The educational coordinator may also be identified as the radiation therapy clinical coordinator. The educational coordinator position may be shared by no more than four (4) appointees. If an educational coordinator is required, the program director may not be identified as the educational coordinator. The educational coordinator may not be identified as the program director.

The program director and educational coordinator may perform clinical instruction; however, they may not be identified as clinical preceptors.

A minimum of one clinical preceptor must be designated at each recognized clinical setting. The same clinical preceptor may be identified at more than one site as long as a ratio of one full-time equivalent clinical preceptor for every five (5) students is maintained.

### ***Required Program Response:***

- Provide, if available, institutional policies in relation to teaching loads and release time.
- Describe faculty teaching loads and release time in relation to comparable health science programs within the institution.
- Describe the adequacy of the number of faculty and clinical staff to meet identified accreditation requirements and program needs.

### ***Possible Site Visitor Evaluation Methods:***

- Review institutional policies in relation to teaching loads and release time.
- Review of master plan of education
- Review of position descriptions
- Review of clinical settings
- Interviews with faculty
- Interviews with clinical preceptor(s)
- Interviews with students

**2.3 Provides faculty with opportunities for continued professional development.*****Explanation:***

Continued professional development results in more knowledgeable, competent, and proficient faculty. Opportunities that enhance and advance educational, technical, and professional knowledge must be available to program faculty.

***Required Program Response:***

Describe how continued professional development opportunities are made available to faculty.

***Possible Site Visitor Evaluation Methods:***

- Review of institutional and program policies
- Review of program budget or other fiscal appropriations
- Review of evidence of faculty participation in professional development activities
- Interviews with administrative personnel
- Interviews with faculty

**2.4 Provides clerical support services, as needed, to meet all educational, program, and administrative requirements.**

***Explanation:***

Clerical support services necessary to assist in meeting educational, program, and administrative requirements of the program must be provided as appropriate.

***Required Program Response:***

Describe the availability and use of clerical support services.

***Possible Site Visitor Evaluation Methods:***

- Review of program's staffing plan
- Interviews with administrative personnel
- Interviews with faculty
- Interviews with students

## 2.5 Assures JRCERT recognition of all clinical practice settings.

### *Explanation:*

JRCERT recognition helps assure an appropriate learning environment for student clinical education. All clinical practice settings must be recognized by the JRCERT. Recognition of a clinical practice setting must be obtained prior to student placement. A minimum of one (1) clinical preceptor must be identified for each recognized clinical practice setting.

An observation site is used for student observation of the operation of equipment and/or procedures. If the program uses observation sites, these sites do not require recognition by the JRCERT. These sites provide opportunities for observation of clinical procedures that may not be available at recognized clinical settings. Students may not assist in, or perform, any aspects of patient care during observational assignments.

Facilities where students are participating in service-learning projects or community-based learning opportunities do not require recognition.

### *Required Program Response:*

- Assure all clinical settings are recognized by the JRCERT.
- Describe how observation sites, if used, enhance student clinical education.

### *Possible Site Visitor Evaluation Methods:*

- Review of JRCERT database
- Review of clinical records
- Interviews with faculty
- Interviews with clinical preceptors
- Interviews with clinical staff
- Interviews with students

## **2.6 Provides classrooms, laboratories, and administrative and faculty offices to facilitate the achievement of the program's mission.**

### ***Explanation:***

Learning environments are defined as places, surroundings, or circumstances where knowledge, understanding, or skills are studied or observed such as classrooms and laboratories. Learning environments must be consistent with those of comparable health science programs in the same institution. Provision of appropriate learning environments facilitates achievement of the program's mission. Although a dedicated classroom and/or laboratory are not required, scheduled accessibility to facilities conducive to student learning must be assured. Faculty office space should be conducive to planning and scholarly activities. Space should be made available for private student advisement.

### ***Required Program Response:***

Describe how classrooms, laboratories, and administrative and faculty offices facilitate the achievement of the program's mission.

### ***Possible Site Visitor Evaluation Methods:***

- Tour of the classroom, laboratories, and administrative and faculty offices
- Interviews with faculty
- Interviews with students

## **2.7 Reviews and maintains program learning resources to assure the achievement of student learning.**

### ***Explanation:***

The review and maintenance of learning resources promotes student knowledge of current and developing dosimetry activities. The program must provide learning resources to support and enhance the educational program. These resources must include:

- a print or electronic library with a variety of materials published within the last five years,
- computer access, and
- additional learning aids (e.g., educational software, classroom/laboratory accessory devices, etc.).

The JRCERT does not endorse any specific learning resources.

### ***Required Program Response:***

- Describe the available learning resources.
- Describe the procedure for review and maintenance of learning resources.

### ***Possible Site Visitor Evaluation Methods:***

- Tour of learning facilities
- Review of learning resources
- Review of surveys
- Review of meeting minutes
- Interviews with faculty
- Interviews with students

## **2.8 Provides access to student services in support of student learning.**

### ***Explanation:***

The provision of appropriate student services promotes student achievement. At a minimum, the program must provide access to information for:

- personal counseling,
- requesting accommodations for disabilities as defined by applicable federal (Americans with Disabilities Act) and state laws, and
- financial aid.

Additional student services may be provided at the discretion of the program. These services should be sufficient to assure student learning.

All services provided must be made known to students and the general public.

### ***Required Program Response:***

- Describe the students' access to student services.
- Provide published program materials that outline accessibility to student services.

### ***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Interviews with faculty
- Interviews with students

**2.9 Has sufficient ongoing financial resources to support the program's mission.*****Explanation:***

Adequate, ongoing funding is necessary to accomplish the program's mission and to support student learning. The sponsoring institution must demonstrate ongoing financial commitment to the program and its students by providing adequate human and physical resources.

***Required Program Response:***

- Describe the adequacy of financial resources.
- Provide copies of the program's budget and/or expenditure records.

***Possible Site Visitor Evaluation Methods:***

- Review of program budget and/or other fiscal appropriations
- Interviews with administrative personnel
- Interviews with faculty

**2.10 For those institutions and programs for which the JRCERT serves as a gatekeeper for Title IV financial aid, maintains compliance with United States Department of Education (USDE) policies and procedures.**

***Explanation:***

A gatekeeper is defined as an agency holding responsibility for oversight of the distribution, record keeping, and repayment of Title IV financial aid. The program must comply with USDE requirements to participate in Title IV financial aid.

If the program has elected to participate in Title IV financial aid and the JRCERT is identified as the gatekeeper, the program must: maintain financial documents including audit and budget processes confirming appropriate allocation and use of financial resources, have a monitoring process for student loan default rates, have an appropriate accounting system providing documentation for management of Title IV financial aid and expenditures, and inform students of responsibility for timely repayment of Title IV financial aid.

***Required Program Response:***

- Provide evidence that Title IV financial aid is managed and distributed according to the USDE regulations to include:
  - recent student loan default data and
  - results of financial or compliance audits.
- Describe how the program informs students of their responsibility for timely repayment of financial aid.

***Possible Site Visitor Evaluation Methods:***

- Review of records
- Interviews with administrative personnel
- Interviews with faculty
- Interviews with students

## Summary for Standard Two

1. List the major strengths of **Standard Two**, in order of importance.
2. List the major concerns of **Standard Two**, in order of importance.
3. Provide the program's plan for addressing each concern identified.
4. Describe any progress already achieved in addressing each concern.
5. Describe any constraints in implementing improvements.

**Standard Three**  
*Curriculum and Academic Practices*

**Standard Three: The program's curriculum and academic practices prepare students for professional practice.**

**Objectives:**

In support of **Standard Three**, the program:

- 3.1 Has a program mission statement that defines its purpose and scope and is periodically reevaluated.
- 3.2 Provides a well-structured, competency-based curriculum that prepares students to practice in the professional discipline.
- 3.3 Provides learning opportunities in current and developing medical dosimetry activities.
- 3.4 Assures an appropriate relationship between program length and the subject matter taught for the terminal award offered.
- 3.5 Measures the length of all didactic and clinical courses in clock hours or credit hours.
- 3.6 Maintains a master plan of education.
- 3.7 Provides timely and supportive academic, behavioral, and clinical advisement to students enrolled in the program.
- 3.8 Documents that the responsibilities of faculty and clinical staff are delineated and performed.
- 3.9 Evaluates program faculty and clinical preceptor performance and shares evaluation results regularly to assure instructional responsibilities are performed.

**3.1 Has a program mission statement that defines its purpose and scope and is periodically reevaluated.**

***Explanation:***

The program's mission statement should be consistent with that of its sponsoring institution. The program's mission statement should clearly define the purpose or intent toward which the program's efforts are directed. Periodic evaluation assures that the program's mission statement is effective.

***Required Program Response:***

- Provide a copy of the program's mission statement.
- Provide meeting minutes that document periodic reevaluation of the mission statement.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of meeting minutes
- Review of master plan of education
- Interviews with faculty

### **3.2 Provides a well-structured, competency-based curriculum that prepares students to practice in the professional discipline.**

#### ***Explanation:***

The well-structured curriculum must be comprehensive, appropriately sequenced, include current information, and provide for evaluation of student achievement. A competency-based curriculum allows for effective student learning by providing a knowledge foundation prior to performance of procedures. Continual refinement of the competencies achieved is necessary so that students can demonstrate enhanced performance in a variety of situations and patient conditions. In essence, competency-based education is an ongoing process, not an end product.

Programs must follow a JRCERT-adopted curriculum. An adopted curriculum is defined as:

- the latest American Association of Medical Dosimetrists professional curriculum and/or
- another professional curriculum adopted by the JRCERT Board of Directors following review and recommendation by the JRCERT Standards Committee.

Use of a standard curriculum promotes consistency in medical dosimetry education and prepares the student to practice in the professional discipline. At a minimum, the curriculum should promote qualities that are necessary for students/graduates to practice competently, make good decisions, assess situations, provide appropriate patient care, communicate effectively, and keep abreast of current advancements within the profession. Expansion of the curricular content beyond the minimum is at the discretion of the program.

The program must submit the latest curriculum analysis grid (available at [www.jrcert.org](http://www.jrcert.org)).

#### ***Required Program Response:***

- Describe how the program's curriculum is structured.
- Describe the program's competency-based system.
- Submit current curriculum analysis grid.
- Describe how the program's curriculum is delivered, including the method of delivery for distance education courses.
- Identify which courses, if any, are offered via distance education.
- Describe alternative learning options, if applicable (e.g., part-time, evening and/or weekend curricular track).

#### ***Possible Site Visitor Evaluation Methods:***

- Review of master plan of education
- Review of didactic and clinical curriculum sequence
- Review of analysis of graduate and employer surveys
- Interviews with faculty
- Interviews with students
- Observation of a portion of any course offered via distance delivery
- Review of part-time, evening and/or weekend curricular track, if applicable.

### **3.3 Provides learning opportunities in current and developing medical dosimetry activities.**

***Explanation:***

The program must provide learning opportunities in current and developing medical dosimetry activities. It is the program's prerogative to decide which technologies should be included in the didactic and/or clinical curriculum. Programs are not required to offer clinical rotations in developing medical dosimetry activities; however, these clinical rotations are strongly encouraged to enhance student learning.

***Required Program Response:***

Describe how the program provides opportunities in developing activities in the didactic and/or clinical curriculum.

***Possible Site Visitor Evaluation Methods:***

- Review of master plan of education
- Interviews with faculty
- Interviews with students

**3.4 Assures an appropriate relationship between program length and the subject matter taught for the terminal award offered.**

***Explanation:***

Program length must be consistent with the terminal award. The JRCERT defines program length as the duration of the program, which may be stated as total academic or calendar year(s), total semesters, trimesters, or quarters.

***Required Program Response:***

Describe the relationship between the program length and the terminal award offered.

***Possible Site Visitor Evaluation Methods:***

- Review of course catalog
- Review of published program materials
- Review of class schedules
- Interviews with faculty
- Interviews with students

### **3.5 Measures the length of all didactic and clinical courses in clock hours or credit hours.**

#### ***Explanation:***

Defining the length of didactic and clinical courses facilitates student transfer of credit and the awarding of financial aid. The formula for calculating assigned clock/credit hours must be consistently applied for all didactic and all clinical courses, respectively.

#### ***Required Program Response:***

- Describe the method used to award credit hours for lecture, laboratory and clinical courses.
- Provide a copy of the program's policies and procedures for determining credit hours and an example of how such policy has been applied to the program's coursework.
- Provide a list of all didactic and clinical courses with corresponding clock or credit hours.

#### ***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of class schedules
- Interviews with faculty
- Interviews with students

### **3.6 Maintains a master plan of education.**

***Explanation:***

A master plan provides an overview of the program and allows for continuity among, and documentation of, all aspects of the program. In the event of new faculty and/or leadership to the program, the master plan provides the information needed to understand the program and its operations.

The plan should be evaluated annually, updated, and must include the following:

- course syllabi (didactic and clinical courses) and
- program policies and procedures.

While there is no prescribed format for the master plan, the component parts should be identified and readily available. If the components are not housed together, the program must list the location of each component. If the program chooses to use an electronic format, the components must be accessible by all program faculty.

***Required Program Response:***

- Identify the location of the component parts of the master plan of education.
- Provide a Table of Contents for the program's master plan.

***Possible Site Visitor Evaluation Methods:***

- Review of master plan of education
- Interview with program director
- Interviews with faculty

### **3.7 Provides timely and supportive academic, behavioral, and clinical advisement to students enrolled in the program.**

***Explanation:***

Appropriate advisement promotes student achievement. Student advisement should be formative, summative, and must be shared with students in timely manner. Programs are encouraged to develop written advisement procedures.

***Required Program Response:***

- Describe procedures for advisement.
- Provide sample records of student advisement.

***Possible Site Visitor Evaluation Methods:***

- Review of students' records
- Interviews with faculty
- Interviews with clinical preceptor(s)
- Interviews with students

### 3.8 Documents that the responsibilities of faculty and clinical staff are delineated and performed.

- Full-time Program Director:
  - Assures effective program operations,
  - Oversees ongoing program assessment,
  - Participates in budget planning,
  - Maintains current knowledge of the professional discipline and educational methodologies through continuing professional development, and
  - Assumes the leadership role in the continued development of the program.
- Full-time Educational Coordinator:
  - Correlates clinical education with didactic education,
  - Evaluates students,
  - Participates in didactic and/or clinical instruction,
  - Supports the program director to help assure effective program operation,
  - Coordinates clinical education and evaluates its effectiveness,
  - Participates in the assessment process,
  - Cooperates with the program director in periodic review and revision of clinical course materials,
  - Maintains current knowledge of the discipline and educational methodologies through continuing professional development, and
  - Maintains current knowledge of program policies, procedures, and student progress.
- Full-time Didactic Program Faculty:
  - Prepares and maintains course outlines and objectives, instructs and evaluates students, and reports progress,
  - Participates in the assessment process,

Supports the program director to help assure effective program operation,

Cooperates with the program director in periodic review and revision of course materials, and

Maintains appropriate expertise and competence through continuing professional development.

- Part-time Didactic Program Faculty:

Prepares and maintains course outlines and objectives, instructs and evaluates students, and reports progress,

Participates in the assessment process, when appropriate,

Cooperates with the program director in periodic review and revision of course materials, and

Maintains appropriate expertise and competence through continuing professional development.

- Clinical Preceptor(s):

Is knowledgeable of program goals,

Understands the clinical objectives and clinical evaluation system,

Understands the sequencing of didactic instruction and clinical education,

Provides students with clinical instruction and supervision,

Evaluates students' clinical competence,

Maintains competency in the professional discipline and instructional and evaluative techniques through continuing professional development, and

Maintains current knowledge of program policies, procedures, and student progress.

- Clinical Staff:

Understand the clinical competency system,

Understand requirements for student supervision,

Support the educational process, and

Maintain current knowledge of program policies, procedures, and student progress.

***Explanation:***

The clear delineation of responsibilities facilitates accountability. Faculty and clinical staff responsibilities must be clearly delineated and must support the program's mission.

Full- and part-time status is determined by, and consistent with, the sponsoring institution's definition.

At all times when students are enrolled in didactic and/or clinical components, the program director and/or clinical coordinator must assure that their program responsibilities are fulfilled.

***Required Program Response:***

Provide documentation that faculty and clinical staff positions are clearly delineated.

***Possible Site Visitor Evaluation Methods:***

- Review of position descriptions
- Review of handbooks
- Interviews with faculty and clinical staff to assure responsibilities are being performed
- Interviews with students

### **3.9 Evaluates program faculty and clinical preceptor performance and shares evaluation results regularly to assure instructional responsibilities are performed.**

#### ***Explanation:***

The performance of program faculty and clinical preceptor(s) must be evaluated minimally once per year. Evaluation assures that instructional responsibilities are performed and provides administration and faculty with information to evaluate performance. Evaluation promotes proper educational methodology and increases program effectiveness. Evaluation results must be shared minimally once per year with the respective program faculty and clinical preceptor(s) being evaluated to assure continued professional development. Any evaluation results that identify concerns must be discussed with the respective individual(s) as soon as possible.

#### ***Required Program Response:***

- Describe the evaluation process.
- Describe how evaluation results are shared with program faculty and clinical preceptor(s).
- Provide samples of evaluations of program faculty.
- Provide samples of evaluations of clinical preceptor(s).

#### ***Possible Site Visitor Evaluation Methods:***

- Review of program evaluation materials
- Review of clinical preceptor evaluation
- Interviews with administrative personnel
- Interviews with program faculty
- Interviews with clinical preceptor(s)
- Interviews with students

### Summary for Standard Three

1. List the major strengths of **Standard Three**, in order of importance.
2. List the major concerns of **Standard Three**, in order of importance.
3. Provide the program's plan for addressing each concern identified.
4. Describe any progress already achieved in addressing each concern.
5. Describe any constraints in implementing improvements.

**Standard Four**  
*Health and Safety*

**Standard Four:**      **The program’s policies and procedures promote the health, safety, and optimal use of radiation for students, patients, and the general public.**

**Objectives:**

In support of **Standard Four**, the program:

- 4.1 Assures the radiation safety of students through the implementation of published policies and procedures that are in compliance with Nuclear Regulatory Commission regulations and state laws as applicable.
- 4.2 Has a published pregnancy policy that is consistent with applicable federal regulations and state laws, made known to accepted and enrolled female students, and contains the following elements:
  - Written notice of voluntary declaration,
  - Option for student continuance in the program without modification, and
  - Option for written withdrawal of declaration.
- 4.3 Assures that students employ proper radiation safety practices.
- 4.4 Assures that all medical dosimetry calculations and treatment plans are approved by a credentialed practitioner prior to implementation.
- 4.5 Assures that direct patient contact procedures (e.g., simulation, fabrication of immobilization devices, etc.) are performed under the direct supervision of a credentialed practitioner.
- 4.6 Assures sponsoring institution’s policies safeguard the health and safety of students.
- 4.7 Assures that students are oriented to clinical practice setting policies and procedures in regard to health and safety.

**4.1 Assures the radiation safety of students through the implementation of published policies and procedures that are in compliance with Nuclear Regulatory Commission regulations and state laws as applicable.**

***Explanation:***

Appropriate policies and procedures help assure that student radiation exposure is kept as low as reasonably achievable (ALARA). The program must maintain and monitor student radiation exposure data. This information must be made available to students within thirty (30) school days following receipt of data. The program must have a published protocol that identifies a threshold dose for incidents in which dose limits are exceeded. Programs are encouraged to identify a threshold dose below those identified in NRC regulations.

***Required Program Response:***

- Describe how the policies are made known to enrolled students.
- Describe how radiation exposure data is made available to students.
- Provide copies of appropriate policies.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of student records
- Review of student dosimetry reports
- Interviews with faculty
- Interviews with students

**4.2 Has a published pregnancy policy that is consistent with applicable federal regulations and state laws, made known to accepted and enrolled female students, and contains the following elements:**

- **Written notice of voluntary declaration,**
- **Option for student continuance in the program without modification, and**
- **Option for written withdrawal of declaration.**

***Explanation:***

Appropriate radiation safety practices help assure that radiation exposure to the student and fetus are kept as low as reasonably achievable (ALARA). The policy must include appropriate information regarding radiation safety for the student and fetus. The program must allow for student continuance in the clinical component of the program without modification. The program may offer clinical component options such as: (1) clinical reassignments and/or (2) leave of absence.

***Required Program Response:***

- Describe how the pregnancy policy is made known to accepted and enrolled female students.
- Provide a copy of the program's pregnancy policy.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of student records
- Interviews with faculty
- Interviews with clinical preceptor(s)
- Interviews with students

### **4.3 Assures that students employ proper radiation safety practices.**

#### ***Explanation:***

The program must assure that students are instructed in the utilization of simulation and treatment equipment and accessories to minimize radiation exposure to patients, selves, and others. These practices assure radiation exposures are kept as low as reasonably achievable (ALARA).

Students must understand basic radiation safety practices prior to assignment to clinical practice settings. As students progress in the program, they must become increasingly proficient in the application of radiation safety practices.

#### ***Required Program Response:***

- Describe how the curriculum sequence and content prepares students for safe radiation practices.
- Provide the curriculum sequence.
- Provide policies/procedures regarding radiation safety.

#### ***Possible Site Visitor Evaluation Methods:***

- Review of program curriculum
- Review of radiation safety policies/procedures
- Review of student handbook
- Review of student records
- Review of student dosimetry reports
- Interviews with faculty
- Interviews with clinical preceptor(s)
- Interviews with clinical staff
- Interviews with students

#### **4.4 Assures that all medical dosimetry calculations and treatment plans are approved by a credentialed practitioner prior to implementation.**

***Explanation:***

The approval of dosimetry calculations and treatment plans by a credentialed practitioner (e.g., certified medical dosimetrist, credentialed medical physicist, licensed radiation oncologist) assures patient safety and proper educational practices.

***Required Program Response:***

- Describe how this requirement is enforced and monitored in the clinical practice setting.
- Provide documentation that the program assures all medical dosimetry calculations and treatment plans are approved by a credentialed practitioner prior to implementation.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of approved dose calculations and treatment plans
- Interviews with faculty
- Interviews with clinical preceptor(s)
- Interviews with clinical staff
- Interviews with students

**4.5 Assures that direct patient contact procedures (e.g., simulation, fabrication of immobilization devices, etc.) are performed under the direct supervision of a credentialed practitioner.**

***Explanation:***

Direct supervision assures patient safety and proper educational practice. The JRCERT defines direct supervision as student supervision by a credentialed practitioner (e.g., registered radiation therapist, credentialed medical physicist, licensed radiation oncologist) during all aspects of the procedure.

The JRCERT defines direct supervision as student supervision by a credentialed practitioner who:

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

Students must always be directly supervised during patient contact procedures.

***Required Program Response:***

- Describe how the direct supervision requirement for simulation, fabrication immobilization devices, etc. is enforced and monitored in the clinical practice setting.
- Provide documentation that direct supervision requirements for simulation, fabrication immobilization devices, etc. is made known to students, clinical preceptors, and clinical staff.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of student records
- Interviews with faculty
- Interviews with clinical preceptor(s)
- Interviews with clinical staff
- Interviews with students

**4.6 Assures sponsoring institution's policies safeguard the health and safety of students.*****Explanation:***

Appropriate sponsoring institutional policies and procedures assure that students are protected. These policies must, at a minimum, address emergency preparedness, harassment, communicable diseases, and substance abuse. Policies and procedures must meet federal and/or state requirements as applicable. Enrolled students must be informed of policies and procedures.

***Required Program Response:***

Provide program policies that safeguard the health and safety of students.

***Possible Site Visitor Evaluation Methods:***

- Review of published program materials
- Review of student records
- Interviews with faculty
- Interviews with students

#### **4.7 Assures that students are oriented to clinical practice setting policies and procedures in regard to health and safety.**

***Explanation:***

Appropriate orientation assures that students are cognizant of clinical policies and procedures. The policies and procedures must, at a minimum, address the following: hazards (fire, electrical, chemical), emergency preparedness, medical emergencies, HIPAA, and Standard Precautions.

***Required Program Response:***

- Describe the process for orienting students to clinical practice settings.
- Provide documentation that students are apprised of policies and procedures specific to each clinical practice setting.

***Possible Site Visitor Evaluation Methods:***

- Review of orientation process
- Review of student records
- Interviews with faculty
- Interviews with clinical preceptor(s)
- Interviews with students

### Summary for Standard Four

1. List the major strengths of **Standard Four**, in order of importance.
2. List the major concerns of **Standard Four**, in order of importance.
3. Provide the program's plan for addressing each concern identified.
4. Describe any progress already achieved in addressing each concern.
5. Describe any constraints in implementing improvements.

## **Standard Five** *Assessment*

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

### **Objectives:**

In support of **Standard Five**, the program:

### **Student Learning**

5.1      Develops an assessment plan that, at a minimum, measures the program's student learning outcomes in relation to the following goals: clinical competence, critical thinking, professionalism, and communication skills.

### **Program Effectiveness**

5.2      Documents the following program effectiveness data:

- Five-year average credentialing examination pass rate of not less than 75 percent at first attempt within twelve months of graduation,
- Five-year average job placement rate of not less than 75 percent within twelve months of graduation,
- Program completion rate,
- Graduate satisfaction, and
- Employer satisfaction.

5.3      Makes available to the general public program effectiveness data (credentialing examination pass rate, job placement rate, and program completion rate) on an annual basis.

### **Analysis and Actions**

5.4      Analyzes and shares student learning outcome data and program effectiveness data to foster continuous program improvement.

5.5      Periodically evaluates its assessment plan to assure continuous program improvement.

**5.1 Develops an assessment plan that, at a minimum, measures the program's student learning outcomes in relation to the following goals: clinical competence, critical thinking, professionalism, and communication skills.**

***Explanation:***

Assessment is the systematic collection, review, and use of information to improve student learning and educational quality. An assessment plan helps assure continuous improvement and accountability. Minimally, the plan must include a separate goal in relation to each of the following: clinical competence, critical thinking, professionalism, and communication skills. The plan must include student learning outcomes, measurement tools, benchmarks, and identify timeframes and parties responsible for data collection.

For additional information regarding assessment, please refer to [www.jrcert.org](http://www.jrcert.org).

***Required Program Response:***

Provide a copy of the program's current assessment plan.

***Possible Site Visitor Evaluation Methods:***

- Review of assessment plan
- Review of assessment tools
- Interviews with faculty

## 5.2 Documents the following program effectiveness data:

- **Five-year average credentialing examination pass rate of not less than 75 percent at first attempt within twelve months of graduation,**
- **Five-year average job placement rate of not less than 75 percent within twelve months of graduation,**
- **Program completion rate,**
- **Graduate satisfaction, and**
- **Employer satisfaction.**

### *Explanation:*

Credentialing examination, job placement, and program completion data must be reported annually to the JRCERT. Graduate and employer satisfaction data must be collected as part of the program's assessment process.

Credentialing examination pass rate is defined as the number of graduates who pass, on first attempt, the Medical Dosimetrist Certification Board (MDCB) certification examination or an unrestricted state licensing examination compared with the number of graduates who take the examination within twelve months of graduation.

Job placement rate is defined as the number of graduates employed in medical dosimetry compared to the number of graduates actively seeking employment in medical dosimetry. The JRCERT has defined not actively seeking employment as: 1) graduate fails to communicate with program officials regarding employment status after multiple attempts, 2) graduate is unwilling to seek employment that requires relocation, 3) graduate is unwilling to accept employment due to salary or hours, 4) graduate is on active military duty, and/or 5) graduate is continuing education.

Program completion rate is defined as the number of students who complete the program within 150% of the stated program length. The program must establish a benchmark for its program completion rate. The program specifies the entry point (e.g., required orientation date, final drop/add date, final date to drop with 100% tuition refund, official class roster date, etc.) used in calculating program's completion rate.

Graduate and employer satisfaction may be measured through a variety of methods. The methods and timeframes for collection of the graduate and employer satisfaction data are the prerogative of the program.

### *Required Program Response:*

Provide actual outcome data in relation to program effectiveness.

### *Possible Site Visitor Evaluation Methods:*

- Review of program effectiveness data
- Interviews with faculty

### **5.3 Makes available to the general public program effectiveness data (credentialing examination pass rate, job placement rate, and program completion rate) on an annual basis.**

#### ***Explanation:***

Program accountability is enhanced by making its effectiveness data available to the program's communities of interest and the general public. In efforts to increase accountability and transparency, the program must publish, at a minimum, its five-year average credentialing examination pass rate, five-year average job placement rate, and program completion rate data on its Web site to allow the public access to this data. The program effectiveness data should clearly identify the sample size associated with each associated measure (i.e., number of first time test takers, number of graduates actively seeking employment, number of graduates).

Additionally, the JRCERT will post five-year average credentialing examination pass rate, five-year average job placement rate, and program completion rate data at [www.jrcert.org](http://www.jrcert.org). The program must publish the JRCERT URL ([www.jrcert.org](http://www.jrcert.org)) to allow the public access to this data.

#### ***Required Program Response:***

- Provide copies of publications that contain the program's program effectiveness data (credentialing examination pass rate, job placement rate, and program completion rate).
- Provide samples of publications that document the availability of program effectiveness data via the JRCERT URL address from the institution's/program's Web site.

#### ***Possible Site Visitor Evaluation Methods:***

- Review of program publications
- Review of institutional and/or program Web site
- Interviews with faculty
- Interviews with students

#### **5.4 Analyzes and shares student learning outcome data and program effectiveness data to foster continuous program improvement.**

***Explanation:***

Analysis of student learning outcome data and program effectiveness data allows the program to identify strengths and areas for improvement to bring about systematic program improvement. This analysis also provides a means of accountability to communities of interest. It is the program's prerogative to determine its communities of interest.

The analysis must be reviewed with the program's communities of interest. One method to accomplish this would be the development of an assessment committee. The composition of the assessment committee may be the program's advisory committee or a separate committee that focuses on the assessment process. The committee should be used to provide feedback on student achievement and assist the program with strategies for improving its effectiveness. This review should occur at least annually and must be formally documented.

For additional information regarding assessment, please refer to [www.jrcert.org](http://www.jrcert.org).

***Required Program Response:***

- Describe how the program analyzes student learning outcome data and program effectiveness data to identify areas for program improvement.
- Describe how the program shares its student learning outcome data and program effectiveness data with its communities of interest.
- Describe examples of changes that have resulted from the analysis of student learning outcome data and program effectiveness data and discuss how these changes have led to program improvement.
- Provide a copy of the program's actual student learning outcome data since the last accreditation award. This data may be documented on previous assessment plans or on a separate document.
- Provide documentation that student learning outcome data and program effectiveness data has been shared with communities of interest.

***Possible Site Visitor Evaluation Methods:***

- Review of student learning outcome data and program effectiveness data to support the assessment plan
- Review of representative samples of measurement tools used for data collection
- Review of aggregate data
- Review of meeting minutes related to the assessment process
- Interviews with faculty

## **5.5 Periodically evaluates its assessment plan to assure continuous program improvement.**

### ***Explanation:***

Identifying and implementing needed improvements in the assessment plan leads to programmatic improvement and renewal. As part of the assessment cycle, the program should review its assessment plan to assure that assessment measures are adequate, and that the assessment process is effective in measuring student learning outcomes. At a minimum, this evaluation must occur at least every two years and be documented in meeting minutes.

For additional information regarding assessment, please refer to [www.jrcert.org](http://www.jrcert.org).

### ***Required Program Response:***

- Describe how this evaluation has occurred.
- Provide documentation that the plan is evaluated at least once every two years.

### ***Possible Site Visitor Evaluation Methods:***

- Review of meeting minutes related to the assessment process
- Review of assessment committee meeting minutes, if applicable
- Interviews with faculty

### Summary for Standard Five

1. List the major strengths of **Standard Five**, in order of importance.
2. List the major concerns of **Standard Five**, in order of importance.
3. Provide the program's plan for addressing each concern identified.
4. Describe any progress already achieved in addressing each concern.
5. Describe any constraints in implementing improvements.

## **Standard Six**

### *Institutional/Programmatic Data*

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

#### **Objectives:**

In support of **Standard Six**, the program:

#### **Sponsoring Institution**

6.1 Documents the continuing institutional accreditation of the sponsoring institution.

#### **Personnel**

6.2 Documents that all faculty and staff possess academic and professional qualifications appropriate for their assignments.

#### **Clinical Settings**

6.3 Establishes and maintains affiliation agreements with clinical settings.

6.4 Documents that clinical settings are in compliance with applicable state and/or federal radiation safety laws.

#### **Program Sponsorship, Substantive Changes, and Notification of Program Officials**

6.5 Complies with requirements to achieve and maintain JRCERT accreditation.

**6.1 Documents the continuing institutional accreditation of the sponsoring institution.*****Explanation:***

The goal of accreditation is to ensure that the education provided by institutions meets acceptable levels of quality. The sponsoring institution must be accredited by:

- an agency recognized by the United States Department of Education (USDE) and/or Council for Higher Education Accreditation (CHEA),
- The Joint Commission (TJC), or
- equivalent standards.

***Required Program Response:***

Provide documentation of current institutional accreditation of the sponsoring institution. This may be a copy of the award letter, certificate, or printout of the institutional accreditor's Web page.

## 6.2 Documents that all faculty and staff possess academic and professional qualifications appropriate for their assignments.

- Full-time Program Director:

Holds, at a minimum, a masters degree,

Is proficient in curriculum design, program administration, evaluation, instruction, and academic advising,

Documents three years clinical experience in medical dosimetry and/or radiation therapy,

Documents one year of experience as a preceptor in a JRCERT-accredited program, and

Holds Medical Dosimetrist Certification Board registration or equivalent; if the program director does not meet this qualification, an educational coordinator is required.

- Full-time Educational Coordinator:

Holds, at a minimum, a baccalaureate degree,

Is proficient in curriculum development, supervision, instruction, evaluation, and academic advising,

Documents two years clinical experience in the professional discipline,

Documents a minimum of one year of experience as a preceptor in a JRCERT-accredited program, and

Holds Medical Dosimetrist Certification Board registration or equivalent.

- Full-time Didactic Program Faculty:

Holds, at a minimum, a baccalaureate degree,

Is qualified to teach the subject,

Is knowledgeable of course development, instruction, evaluation, and academic advising,

Documents two years clinical experience in the professional discipline, and  
Holds Medical Dosimetrist Certification Board registration or equivalent.

- Part-time Didactic Program Faculty

Holds academic and/or professional credentials appropriate to the subject content area taught and

Is knowledgeable of course development, instruction, evaluation, and academic advising,

- Clinical Preceptor(s):

Is proficient in supervision, instruction, and evaluation,

Documents two years clinical experience in the professional discipline, and

Holds Medical Dosimetrist Certification Board registration or equivalent.

- Clinical Staff:

Holds Medical Dosimetrist Certification Board registration or equivalent.

***Explanation:***

Appropriate knowledge, proficiency, and certification (if appropriate) provide a foundation that promotes a sound educational environment.

Faculty and staff must possess academic and professional qualifications appropriate for their respective assignment. Clinical preceptors and clinical staff supervising students' performance in the clinical component of the program must document MDCB registration or equivalent. Equivalent qualifications are certification by the American Board of Radiology (ABR) as a radiation oncologist or the American Board of Medical Physicists as a medical physicist. Appropriate credentials, other than MDCB registration, may be used for qualified health care practitioners supervising students in specialty areas (e.g., registered nurse supervising students' performance of patient care skills or a registered radiation therapist supervising students' observation of therapeutic procedures).

***Required Program Response:***

- For all program officials not previously identified on the program’s database, submit a request for recognition of program officials including a current curriculum vitae, and documentation of current registration by the Medical Dosimetrist Certification Board \* or equivalent.
- For all currently recognized program officials [program director, educational coordinator (if applicable), full-time didactic faculty, and all clinical preceptors], submit a current registration by the Medical Dosimetrist Certification Board \* or equivalent.

\*These documents may be copies of current registration cards or “Verification of CMD Credentials” page available at [www.mdcab.org](http://www.mdcab.org).

### **6.3 Establishes and maintains affiliation agreements with clinical settings.**

***Explanation:***

Formalizing relations between the program and the clinical practice setting helps assure the quality of clinical practice by delineating appropriate responsibilities of the program and the clinical practice setting. An appropriate termination clause assures that students will have an opportunity to complete the clinical practice component. The JRCERT defines an affiliation agreement as a formal written understanding between an institution sponsoring the program and an independent clinical practice setting.

An affiliation agreement must identify the responsibilities of all parties and, specifically, must address student supervision, student liability, and provide adequate notice of termination of the agreement. An affiliation agreement is not needed for clinical practice settings owned by the sponsoring institution; however, a memorandum of understanding between the clinical practice setting and the sponsoring institution is recommended. At a minimum, the memorandum should address responsibilities of both parties and student supervision.

***Required Program Response:***

Provide copies of current, signed affiliation agreements with each clinical setting.

---

**6.4 Documents that clinical settings are in compliance with applicable state and/or federal radiation safety laws.**

***Explanation:***

Compliance with applicable laws promotes a safe environment for students and others. Records of compliance must be maintained for each clinical setting. Clinical settings may be recognized by The Joint Commission (TJC), DNV Healthcare, Inc., Healthcare Facilities Accreditation Program (HFAP), or an equivalent agency, or may hold a state-issued license.

***Required Program Response:***

Provide letters, certificates, or printouts of Web pages demonstrating the current recognition status of each clinical setting.

## 6.5 Complies with requirements to achieve and maintain JRCERT accreditation.

### *Explanation:*

Programs must comply with JRCERT policies and procedures to maintain accreditation. JRCERT accreditation requires that the sponsoring institution has primary responsibility for the educational program and grants the terminal award.

Sponsoring institutions may include educational programs established in vocational/technical schools, colleges, universities, hospitals, or military facilities. The JRCERT also recognizes a consortium as an appropriate sponsor of an educational program. A consortium is two or more academic or clinical institutions that have formally agreed to sponsor the development and continuation of an educational program. The consortium must be structured to recognize and perform the responsibilities and functions of a sponsoring institution.

The JRCERT does not recognize branch campuses. The JRCERT requires that each program location have a separate accreditation award.

Additionally, the JRCERT will not recognize a healthcare system as the program sponsor. A healthcare system consists of multiple institutions operating under a common governing body or parent corporation. A specific facility within the healthcare system must be identified as the sponsor.

The JRCERT requires programs to maintain a current and accurate database. Updates should be reflected within thirty (30) days of effective change date. Additionally, the JRCERT requires notification of substantive changes within thirty (30) days of implementation.

### *Required Program Response:*

- Report any database changes.
- Report any substantive change not previously submitted.

### Summary for Standard Six

1. List the major strengths of **Standard Six**, in order of importance.
2. List the major concerns of **Standard Six**, in order of importance.
3. Provide the program's plan for addressing each concern identified.
4. Describe any progress already achieved in addressing each concern.
5. Describe any constraints in implementing improvements.

---

## Awarding, Maintaining, and Administering Accreditation

### A. Program/Sponsoring Institution Responsibilities

#### 1. Applying for Accreditation

The accreditation review process conducted by the Joint Review Committee on Education in Radiologic Technology (JRCERT) can be initiated only at the written request of the chief executive officer or an officially designated representative of the sponsoring institution.

This process is initiated by submitting an application and self-study report, prepared according to JRCERT guidelines, to:

Joint Review Committee on Education in Radiologic Technology  
20 North Wacker Drive, Suite 2850  
Chicago, IL 60606-3182

#### 2. Administrative Requirements for Maintaining Accreditation

- a. Submitting the self-study report or a required progress report within a reasonable period of time, as determined by the JRCERT.
- b. Agreeing to a reasonable site visit date before the end of the period for which accreditation was awarded.
- c. Informing the JRCERT, within a reasonable period of time, of changes in the institutional or program officials, program director, educational coordinator, full-time didactic faculty, and clinical preceptor(s).
- d. Paying JRCERT fees within a reasonable period of time.

- e. Returning, by the established deadline, a completed Annual Report.
  
- f. Returning, by the established deadline, any other information requested by the JRCERT.

Programs are required to comply with these and other administrative requirements for maintaining accreditation. Additional information on policies and procedures is available at [www.jrcert.org](http://www.jrcert.org).

Program failure to meet administrative requirements for maintaining accreditation will lead to being placed on Administrative Probationary Accreditation and result in Withdrawal of Accreditation.

## B. JRCERT Responsibilities

### 1. Administering the Accreditation Review Process

The JRCERT reviews educational programs to assess compliance with the **Standards for an Accredited Educational Program in Medical Dosimetry**.

The accreditation process includes a site visit.

Before the JRCERT takes accreditation action, the program being reviewed must respond to the report of findings.

The JRCERT is responsible for recognition of clinical settings.

### 2. Accreditation Actions

JRCERT accreditation actions for Probation may be reconsidered following the established procedure.

JRCERT accreditation actions for Accreditation Withheld or Accreditation Withdrawn may be appealed following the established procedure. Procedures for appeal are available at [www.jrcert.org](http://www.jrcert.org).

All other JRCERT accreditation actions are final.

A program or sponsoring institution may, at any time prior to the final accreditation action, withdraw its request for initial or continuing accreditation.

Educators may wish to contact the following organizations for additional information and materials:

accreditation:                   Joint Review Committee on Education in Radiologic Technology  
20 North Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
(312) 704-5300  
[www.jrcert.org](http://www.jrcert.org)

curriculum:                        American Association of Medical Dosimetrists  
12100 Sunset Hills Road, Suite 130  
Reston, VA 20190-3321  
(703) 234-4063  
[www.medicaldosimetry.org](http://www.medicaldosimetry.org)

certification:                    Medical Dosimetrist Certification Board  
15000 Commerce Parkway, Suite C  
Mt. Laurel, NJ 08054-2212  
(866) 813-MDCB (6322)  
[www.mdcb.org](http://www.mdcb.org)

Copyright © 2014 by the JRCERT

Subject to the condition that proper attribution is given and this copyright notice is included on such copies, JRCERT authorizes individuals to make up to one hundred (100) copies of this work for non-commercial, educational purposes. For permission to reproduce additional copies of this work, please write to:

JRCERT  
20 North Wacker Drive  
Suite 2850  
Chicago, IL 60606-3182  
(312) 704-5300  
(312) 704-5304 (fax)  
[mail@jrcert.org](mailto:mail@jrcert.org) (e-mail)  
[www.jrcert.org](http://www.jrcert.org)

