



## **7 Points to Ponder Before Enrolling in a Radiologic Science Program**

**1. You're going to have to touch people, including strangers.**

R.T.s are hands-on people. This profession is high tech and high touch.

**2. Radiologic technology isn't just a job.**

It's a profession. Professionalism means committing to lifelong learning. That kind of commitment isn't for everybody.

**3. School needs to be a priority.**

Studying to be an R.T. is a demanding, full-time job. In addition to hours in the classroom and at clinical sites, you'll need time for studying. Make sure you can give it the time and attention it's going to take, and ask for your family's help and support, too.

**4. Your friends think you'd be great at it, but is your heart really in it?**

Patients deserve high-quality care from professionals who choose to focus on diagnostic imaging or radiation therapy. Give yourself permission to

change your plans if you've realized that radiologic technology just isn't for you.

**5. Don't settle for this because the program you really wanted was full.**

If your career choice doesn't ignite a passion in you, you're likely to be unhappy.

**6. Don't set yourself up for failure, thinking the program's too hard or you won't fit in.**

It is going to be challenging, but if you've been accepted, you've got what it takes to succeed. Stay focused, study hard and ask for help when you need it. Seek out positive, encouraging people who will support your success. Stay away from negative thinkers.

**7. It's not going to be a breeze, either.**

Here's a reality check: Ask current students and instructors what the program's really like. Students often say they had no idea how much they were going to have to learn and understand.

**BALL STATE UNIVERSITY  
RADIATION THERAPY PROGRAM  
POLICIES, PROCEDURES AND INFORMATION**

The following will provide you with policies, procedures and information for the Ball State University Radiation Therapy Program. Please read this information in its entirety and also refer to the purple information sheet.

1. Program mission, goals and philosophy:

**Mission and goals**

- a. To provide the student the time frame for achieving high quality educational experiences in which professional competencies and skills are achieved in the Allied Health science field.
- b. To offer a curriculum that will enable students to acquire the knowledge and skills needed for an entry-level position as a radiation therapist.
- c. To conduct the program in a learning environment that:
  - 1) stimulates intellectual growth and pursuit of scholarly activities.
  - 2) instills integrity and a sense of responsibility to complete all the assigned tasks.
  - 3) promotes the concept of teamwork and strong interpersonal relations.
  - 4) provides the opportunity for remediation as needed for clinical and didactic skills.
  - 5) promotes competency in critical thinking and problem solving skills.
  - 6) promotes life-long learning and professional development.
  - 7) instills a positive commitment by the student to the radiation therapy professional.
- d. To insure that all graduates of the program have sufficient knowledge and skills to achieve a passing score on the ARRT examination.
- e. To provide a well-rounded education as a foundation for securing a position within the profession as soon as possible after passing the ARRT exam.
- f. To prepare the student to apply to sit for the national certification examination given by the American Registry of Radiologic Technologists.
- g. To prepare the student intellectually and psychologically to be able to work within the radiation oncology field.

**Philosophy**

The philosophy of the program is to encourage students to strive for quality in their work and in the care they provide for patients, as well as instill professional values and work ethic. The program emphasizes that the responsibility of learning is placed on the student. Students are challenged to strive and maintain high quality in all aspects of the program and to not accept mediocrity. Students are encouraged to take advantage of the opportunity to learn from others including scientific, professional, technical, intellectual and spiritual knowledge.

2. Accreditation information:

Ball State University is regionally accredited through The North Central Association of Colleges and Schools.

3. Recruitment and admission practices 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.

4. Job availability in radiation therapy is ever changing and cyclical in nature. At times there are many jobs available in the central Indiana area. At other times, there may be fewer jobs available and graduates may have to consider relocating. The BSU Radiation Therapy Program faculty provides information on available jobs to students but the faculty and BSU do not guarantee job placement.

5. An extensive amount of verbal and written communication and self motivation is required in this program. The program is accelerated and students are required to immediately begin interacting and attempting procedures, are expected to read and follow directions and will be continually instructed on ways to improve performance during the entire program. ***Please seriously reconsider your career options if you do not believe you are suited for this type of educational environment.***

6. The clinical phase incorporates clinical courses working with actual patients and the rest of the required academic radiation therapy courses. The clinical phase is provided in an accelerated format and is very structured to incorporate all of the required clinic and academic courses. The clinical phase demands your full time and attention for the entire 14 months to successfully complete all radiography courses. ***Please give great thought to the demands of the program prior to declaring a major, applying to the program and/or accepting a position.***
7. If you need assistance in making an informed decision in choosing Radiation Therapy as a career, you may contact the Program Director and arrange for an optional clinical site visit to directly discuss any major concerns or questions you may have. Potential applicants are encouraged to fully research and investigate the profession prior to declaring a major, applying to the program and/or accepting a position. Please research the additional websites found at the end of this handout.
8. Students are required to have personal access to a computer with Word and PowerPoint, a printer, USB flash drive (memory stick) and Internet. A PC is recommended over Mac due to compatibility issues with Word and PowerPoint, etc. Many courses and assignments require the use of a computer, printing and Internet access. Electronic assignments must be submitted in a Microsoft-based program such as Word or PowerPoint. Assignments submitted in a Mac format will not be accepted if the file is not compatible. Course presentations require the use of a flash drive. Students may be required to access course information and/or assignments from BSU's Blackboard or other sites. All computer, printing, Internet and any other associated costs are the responsibility of the student. The program is not responsible for providing computer, printer, Internet and/or any other supplies or access. It is the student's responsibility to ensure that their computer, printer, scanner, email, Internet, etc. is working properly so that email messages can be read in a timely manner, assignments can be submitted on time or, etc.
9. The Ball State University Radiation Therapy Program is designed to teach entry-level radiation therapy skills and academic information to prepare you to take the national radiation therapy certification examination.
10. Radiation therapy has some potential risks/hazards related to the job. Students are required to learn and perform venipuncture (inserting needle into patient's vein). Students in the clinical setting may be exposed to ionizing radiation, blood, and body fluids including vomit, urine, feces, etc. on a daily basis. Radiation therapy students are required to assess patients and provide general nursing care to patients while in the radiation therapy department.
11. The curriculum for the Radiation Therapy Program is set up to be primarily full time, day shift. The typical schedule is Monday through Friday from 8:00 a.m. to 4:00 p.m. plus homework required at night. You will receive a schedule of your class and clinical rotations at the beginning of each semester. The times and rotations cannot be altered once you begin the clinical portion of the program.
12. There are rotations to clinical sites outside of Methodist Hospital including Muncie and other facilities. Due to the organization of the clinic and class schedules, we cannot "pair" you with someone for carpooling purposes. Clinic and class schedules are tentative and subject to change so the times students are required to be in clinic, class and released for the day varies. For these reasons, it is ***strongly recommended*** that each student possess a valid driver's license, legally be able to drive and have access to a vehicle. Students are responsible for all transportation costs, including gas, to and from the clinic and class sites.
13. Once in the clinical portion of the program, the schedule varies from the Ball State University schedule in order to encompass as much clinic and classroom time as possible in the 14-month period. Students will be given a vacation schedule the 1st day the program begins. Students will usually have one week off in August, Thursday and Friday of Thanksgiving week, one to two weeks over Christmas, and one week off in conjunction with Ball State's Spring break. Students are not scheduled to work weekends unless they request make up or additional time. Even though Ball State campus students may break for longer and/or at different times, students in the clinical portion of the program will not break any more than those times listed above and vacation will not be approved at any other times.

14. Due to the increasing diversity and multi-cultural environment in the workplace, please be advised that the Radiation Therapy Program will observe the holidays determined by Methodist Hospital. Recognized holidays include: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving and Christmas. If you have concerns or questions regarding diversity and a multi-cultural environment, please contact the Program Director.
15. The academic courses involve study outside of the classroom and clinic since they are accelerated. You should plan to spend at least one to two hours of study outside of the classroom and the clinic each day in order to be prepared. Students must obtain a grade of "C" or above in all radiography courses to remain in the program.
16. Students are required to follow policies and procedures while in the program intended to teach professional work ethics including dress code, attendance, punctuality, etc. All policies and procedures will be provided to accepted students during the first week of the clinical program orientation.
17. A professional hierarchy is present in the hospital that students must work within which includes peers, registered technologists, physicians, program faculty and numerous other health care professionals. An extensive amount of verbal, non-verbal and written communication is required as well as critical thinking, problem solving, acceptance of constructive instruction, organization and time management. Students must be able to make and verbalize rationale for decisions on a daily basis.
18. Students receive evaluations on clinical performance (work with actual patients) throughout the program. Evaluations will include student strengths as well as areas for improvement.
19. The clinical education sites are completely smoke free. No smoking is allowed anywhere on the facility property, including personal vehicles in the parking lot. This also includes the use of smokeless tobacco products, electronic cigarettes, etc. No smoking is allowed even if on a meal break due to bringing smoke in on your person back to the clinical area.
20. The dress code is conservative and no facial or tongue piercings are allowed other than three pairs of stud earrings (3 earrings in each ear.) No artificial, sculptured, acrylic or fake nails of any kind are allowed. False eyelashes are not allowed. Hair must be of a cut and color that is conservative and acceptable to the program faculty. The length of student hair does not matter but hair must be secured back away from the face while in clinic so hair does not come into contact with a patient or obstruct the student's vision. Tattoos which might be considered offensive are prohibited and any visible tattoos must be covered.
21. Students are not permitted to use cell phones, including texting, or check personal email at the clinical education sites.
22. The courses during the clinical portion of the program may be conducted differently than on campus. Students have academic classes taught in classrooms at Methodist Hospital in addition to working in the clinic environment with actual patients. Since we work with a much smaller group of students, different types of learning activities are used.
  - The courses focus on critical thinking and problem solving skills.
  - Initially in class and clinic, you will be learning totally new concepts, which will be unfamiliar to you. In clinic, observation is a key element in establishing the baseline learning curve.
  - Student attendance, punctuality and participation in class and clinic is expected and required. It is mandatory that students bring the required text to each class. Sharing of textbooks or handouts is not allowed.
  - Handouts are provided but complete instructor class notes may not be provided. Students are expected to take notes.
  - Research, technical papers, journal reviews, case studies, written and oral presentations and group work are essential elements of the program to demonstrate knowledge, understanding and application of principles and to develop and increase critical thinking and problem solving skills.

- Testing is done utilizing many different question types such as multiple choice, true/false, short answer and questions on exams performed by students on patients in clinic.
  - Since students are demonstrating cumulative knowledge required to complete the program and take the national certification examination, tests may be worth more points than what you are used to on campus. Tests are not typically curved or dropped from the student's overall grade, and comprehensive finals are given.
  - Testing is also done in clinic on exams performed on actual patients. Clinic is not just on-the-job training with no more testing. Testing is actually constant for the entire 14 months.
23. You may complete required preclinical courses at colleges/universities other than Ball State provided that the course is accepted and considered an equivalent by Ball State University. Please contact the Primary Advisor for the Department of Physiology & Health Science at 765-285-5961 if you need assistance in determining course equivalencies.
  24. Anyone wishing to apply to the clinical portion of the program must first be an admitted and current Ball State University student. Go to <http://www.bsu.edu/web/admissions/>, select "Step-by-step Guides for New and Transfer Students" and follow the instructions. Any student must have been officially admitted to BSU by December 1 of the year immediately prior to the clinical phase of the program. BSU may take up to four weeks to process your application. Please keep this in mind in order to meet the date of admission deadline. If you were previously admitted but have been inactive for a semester or if you are a newly admitted student who has not signed up for any courses, BSU may not consider you a current student. If you have previously applied and/or have been admitted to Ball State, it is your responsibility to confirm your status as a current student with BSU. If you have any difficulty, contact the Department of Physiology & Health Science immediately. All transfer hours must be evaluated and appear on the DAPR (Degree analysis Progress Report) and Ball State transcript by the program application deadline. Admission to the university does not guarantee admission to the clinical portion of the program.
  25. The most current grade from a course will be used to figure your GPA regardless of whether it is higher or lower than the previous time(s) the course was taken.
  26. If you are accepted to the program and are still completing preclinical courses, you will be accepted on a conditional basis. In order to retain your clinical spot, all remaining preclinical course grades must meet the requirements of a "C" or above for Math/Science courses, a passing grade for all other courses, and no less than a 2.5 overall GPA in all required preclinical courses. All preclinical courses must be completed by the end of the spring semester prior to beginning the clinical phase of the program.
  27. The number of applicants and the accepted GPA varies each year. The admissions process is competitive and typically more qualified students apply than can be accepted into the program. Admission scores are greatly influenced by the Math/Science GPA since it is the highest weighted factor in the admission process. Students who are not accepted may elect to continue courses on campus to complete a baccalaureate degree and reapply the following year or may elect to repeat specific preclinical courses to raise their Math/Science and/or overall preclinical course GPA.
  28. Refer to the program website at [www.bsu.edu/physiology-health/radtherapy](http://www.bsu.edu/physiology-health/radtherapy) for specific admission requirements and the Program Check Sheet.
  29. To apply, go to the main office of the Department of Physiology & Health Science in Cooper CL 325 to obtain the most current, original program application form and instructions. Allow enough time prior to the program application deadline of the first business day of February to obtain the required official transcripts, DAPR, etc.
  30. Applicants are ranked using the following formula: (GPA of required preclinical courses x 8) + (GPA of required preclinical math/science courses x 17). This translates into the GPA of the required preclinical courses being weighted 32% and the GPA of the math/science courses being weighted 68% of the admission score/ranking.

31. The Admissions Committee usually meets in February to select the class, which begins in May of each year. The number of students selected each year for the clinical phase of the program is determined based on the current job market and the number of clinical spots available at the clinical education sites. The radiation therapy program may accept up to a maximum of eight (8) students. Three program alternates are also designated and will be contacted if there is a program opening. Notification of acceptance or non-acceptance is sent to all applicants via email, usually by Spring Break. If you are offered a position in the program, you will receive notification outlining exactly what to do to accept the position. Orientation information will be sent in March outlining information for ordering uniforms, registering for classes, purchasing books, when and where to report, etc.
32. There is no student housing at Methodist Hospital in Indianapolis. There are however, many apartment complexes within a short distance of the clinical sites and information will be provided in the orientation letter. Students do not have to relocate to Indianapolis but it is strongly recommended due to the time-consuming travel, clinic and class schedule.
33. All accepted students in the clinical portion of the program are not considered employees of the hospital and are not covered under any of the clinical education site's Employee Health services. If a student is injured while performing clinical duties, the student may utilize their own personal health insurance and assumes responsibility for all costs associated with treatment. All accepted students in the clinical portion of the program are provided with professional liability insurance through the university.
34. Students are not prohibited from working jobs outside of their class or clinical work but students are reminded of the extremely time consuming and physical demands of the program. If you choose to work an outside job, you must adjust your work schedule to accommodate your clinical schedule. It is extremely difficult to work a full-time, outside job while in the program.
35. In order to participate in the clinical phase of the program, all accepted students must successfully complete a background check and mandatory drug testing performed by IU Health. Information is included at the end of this handout.
36. Due to the accepted standard of patient care in the workplace, all students who are offered and accept a clinical position in the program must provide proof of documentation of required immunization/tests as determined by the clinical education sites for the entire time that they are a student. No exceptions will be granted. Information will be provided with the program acceptance notification. Accepted students will be required to receive inoculation for influenza and a repeat Tuberculin test. Hepatitis B, Hepatitis A and Meningococcal immunizations are strongly recommended but not mandatory. Mandatory immunizations include but are not limited to:
  - Diphtheria
  - Mumps
  - Pertussis
  - Rubella
  - Rubeola
  - Tetanus
  - Tuberculosis—Intradermal tuberculin test (PPD)
  - Varicella (Chicken Pox)
37. Since a degree in one of the allied health sciences disciplines attests to the mastery of knowledge and skills, graduates must possess the essential knowledge and skills to function in a broad variety of clinical situations and render a wide spectrum of patient care in a safe and effective manner. The Allied Health Sciences Programs faculty have therefore specified nonacademic criteria. All applicants/students accepted into the Radiation Therapy and Radiography Programs are expected to meet the Technical Standards for Admission and Retention in order to participate in the programs. All students accepted to the clinical portion of the program will be required to sign a statement certifying they can meet the technical standards that apply to the program to which they have been admitted. The Technical Standards for Admission and Retention are included in this handout and further information will be provided with the admission notification.

38. Prior to beginning the clinical phase of the program, all accepted students must provide proof of completion of an American Heart Association “Basic Life Support (BLS) for Healthcare Providers Course”. The course must have a two-year expiration date on the card. You can choose to take the course now before being accepted to the program provided that the 2-year expiration date is good through the end of the clinical portion of the program. If you have already taken the appropriate course, your card must have a date that expires after graduation from the clinical portion of the program. If the card does not have an expiration date past graduation from the clinical portion of the program, you will need to retake the course. **The American Heart Association course is the only course that will be accepted.** You must complete the course in the classroom setting. There is an online option for part 1 but parts 2 and 3 must be completed in the classroom. Go to [www.americanheart.org](http://www.americanheart.org), CPR & ECC, Healthcare Training, BLS for Healthcare Providers-Classroom. The website will take you to another page. Click beneath where it says “Purchase Now” on “Use our ECC Class Connector” to locate an AHA Training Center in your area that offers this course. The website will take you to a page where you can put in your information and search for a course. This same information will also be included in the admission notification letter.
39. **Full disclosure of any ticket, citation, summons, arrest, charge or conviction for a misdemeanor or felony is required on the application to the clinical portion of the program.** You must disclose any ticket, citation, summons, arrest, charge or conviction regardless of how long ago they occurred even if you have been told nothing will show on your record, the charges were dismissed, etc. other than the exceptions listed below. For example, a charge and/or ticket and/or conviction for underage drinking must be disclosed even if you have been told it will not show on your record.
- **If you have questions on whether or not you need to disclose information and/or complete the pre-application review process through the ARRT, it is your responsibility to contact the program director of the program in which you wish to apply prior to submitting the application packet. Do not call the ARRT with questions—contact the Program Director.**
  - Individuals with a disclosure must complete the pre-application review process through the American Registry of Radiologic Technologists (ARRT) and receive clearance from the ARRT prior to applying to the clinical phase of the program.
    - The pre-application fee is the responsibility of the student.
    - Written clearance to take the ARRT examination must be attached to the program application by the application deadline.
  - **Exceptions—You do not have to disclose the following:**
    - **Offenses committed while a juvenile and processed in the juvenile court system.**
    - **Traffic violations which did not involve drugs or alcohol.**
  - Dismissed does not mean the charge never occurred; it is simply the disposition of how the case was closed. If you had to attend a class, pay a fine, perform community service, probation and/or stay out of trouble for a period of time, etc. that is a court condition and you must disclose this and complete the pre-application review process through the ARRT.
  - Disclosure will not automatically disqualify your application.
  - If you do not disclose prior tickets, citations, summonses, arrests, charges or convictions on the program application and a validated ticket, citation, summons, arrest, charge or conviction appears on your background check or is discovered later, your application will be disqualified and/or clinical spot will be revoked.
  - For more information and/or instructions, please contact the Program Director for pre-application information well in advance (at least 3 months) of the program application deadline. To download a pre-application form, go to [www.rrt.org](http://www.arrt.org), select Educators & Students, Et Review Pre-Application. **Please note the Ethics Pre-Application Review may take up to 12 weeks to be completed.**
    - If you have ever participated in a diversion program or had any other requirements set by a court such as paying a fine, taking a class, community service, stay out of trouble for 6 months, etc. (**excluding the bulleted exceptions above**) you need to obtain documentation from the court and/or a copy of the court docket verifying your completion of the requirements to send in as documentation to the ARRT when completing the ARRT pre-application review process.

- If you have previously applied to the program and already have a clearance letter from the ARRT, you do not have to complete the pre-application review process again provided no other tickets, citations, summonses, arrests, charges or convictions have occurred. You may just attach a copy of the previous clearance letter. If new tickets, citations, summonses, arrests, charges or convictions have occurred you must complete a new pre-application review process with the ARRT.

40. For more information on the radiologic sciences, please go to the following:

- American Registry of Radiologic Technologists, [www.arrt.org](http://www.arrt.org)
- American Society of Radiologic Technologists, [www.asrt.org](http://www.asrt.org)
- American Society for Radiation Oncology, [www.astro.org](http://www.astro.org)
- Ball State University, [www.bsu.edu/physiology-health/radtherapy](http://www.bsu.edu/physiology-health/radtherapy)
- Bureau of Labor Statistics, [www.bls.gov](http://www.bls.gov)
- Indiana Society of Radiologic Technologists, [www.isort.org](http://www.isort.org)
- Joint Review Committee on Education in Radiologic Technology, [www.jrcert.org](http://www.jrcert.org)
- Program Director, Dan Strahan, BS, RT(T), [dstrahan@iuhealth.org](mailto:dstrahan@iuhealth.org)

**ESTIMATED CLINICAL PORTION OF THE PROGRAM COSTS**

The costs below are for the clinical portion of the program (14 months) and do not include the 28 hours of preclinical courses. Costs do not include housing or transportation. All costs are estimated and tuition is based on in-state online and distance education fees. Students are eligible for all regular BSU financial aid. Tuition increases are announced by Ball State University so the total estimated costs listed here may increase.

<b>REQUIRED PRIOR TO BEGINNING PROGRAM</b>	<b>APPROXIMATE COST</b>
Documentation/administration of immunizations/tests	\$100.00
CPR course for Healthcare Providers	\$ 50.00
<b>SUMMER SESSION</b>	
Uniforms based on 5 pants, 5 tops, 1 lab coat, 1 pair shoes and 6 uniform patches	\$300.00
Tuition: 10 hours x approximately \$270/hour + \$168 technology fee	\$2,868.00
Books: All books are used for all successive semesters.	\$650.00
Program fee: Used for supply expenses associated with the program.	\$100.00
<b>FALL SEMESTER</b>	
Tuition: 12 hours at Ball State flat rate of approximately \$3,512 + \$168 technology fee	\$3,680.00
<b>SPRING SEMESTER</b>	
Tuition: 12 hours at Ball State flat rate of approximately \$3,512 + \$168 technology fee	\$3,680.00
ARRT Examination application fee	\$200.00
<b>ALL-SUMMER SESSION</b>	
Tuition: 2 hours x approximately \$270/hour + \$58 technology fee	\$598.00
<b>NOTE:</b> If you use a credit or debit card you will be charged an extra 2.7 percent of the total bill. Ball State only accepts MasterCard, Discover and American Express.	
<b>TOTAL ESTIMATED COSTS FOR THE CLINICAL PORTION OF THE PROGRAM (14 MONTHS)</b>	<b>\$12,226.00</b>

**TECHNICAL STANDARDS FOR ADMISSION AND RETENTION  
BALL STATE UNIVERSITY  
RADIATION THERAPY AND RADIOGRAPHY PROGRAMS**

If you have any type of impediment/disability (ADHD, learning, physical, psychiatric or anything else) with which you need assistance, **you must contact the BSU Disabled Student Development office**. DSD information is available at <http://www.bsu.edu/dsd/>. Documentation must be supplied through the BSU Disabled Student Development office by all students requesting accommodations. Documentation guidelines are available at <http://cms.bsu.edu/About/AdministrativeOffices/DSD/ForCurrentStudents/VerificationProcess/Guidelines.aspx>.

In order for any accommodations to be requested by the student and be considered, the student must file the impediment/disability with the Ball State University Office of Disabled Student Development and follow all DSD procedures. The student must have the impediment/disability validated and documented by an appropriate qualified professional according to the policies established by BSU. If a student wishes to request special accommodations you must follow the procedure listed on the DSD website. **Students are encouraged to contact the DSD office to allow enough time to process your request.**

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These non academic criteria, **technical standards**, will apply to students *admitted and enrolled* in the Ball State University Radiation Therapy and Radiography Programs.

Radiation therapists and radiographers are health care professionals who possess the knowledge and skills to utilize diagnostic and therapeutic doses of radiation, and associated instrumentation, in the production of medical images, and for the treatment of specific diseases in the human body. These individuals also provide basic nursing and medical care and assist with emergency patient treatment where indicated. Therefore, to be admitted to one of the above listed programs or to be retained in the program after admission, all applicants should possess:

1. Sufficient strength and motor coordination required to stand and walk up to 90% of the day.
2. Sufficient visual acuity, such as is needed in the accurate preparation and administration of contrast media and other medications as directed and for the observation necessary for patient assessment and nursing care.
3. Sufficient auditory perception to receive verbal communication from patients and members of the health team and to assess health needs of people through the use of monitoring devices such as intercom systems, cardiac monitors, stethoscopes, intravenous infusion pumps, fire alarms, etc.
4. Sufficient gross and fine motor coordination to respond promptly and to implement the skills including the manipulation of equipment, positioning and lifting patients required in meeting health needs related to these professions. In addition, students must be able to lift and transport equipment utilized for procedures weighing up to 50 pounds.
5. Sufficient communication skills in English (speech, reading, writing) to interact with individuals to communicate their needs promptly and effectively, as may be necessary in the patient's interest.
6. Sufficient intellectual and emotional functions to exercise independent judgment and discretion in planning and implementing care for patients or to assess medical emergencies and respond quickly to summon qualified medical personnel.

The programs reserve the right to require the applicant or student to physically demonstrate any of the above listed skills.

## DETAILS REGARDING BACKGROUND CHECKS

All accepted students must successfully complete a background check performed by IU Health in order to participate in the clinical phase of the program. Accepted students will be required to provide relevant information and sign an authorization for the background check to be completed in order to confirm their position in the program.

IU Health does not accept individuals who have been convicted of criminal offenses related to healthcare or have been debarred, excluded or otherwise rendered ineligible for participation in federal health care programs. To assist in this effort, a background investigation is conducted on each prospective student. Information obtained in an investigation will be compared with information provided on the application and/or resume by the prospective student. If falsification is discovered, the offer of enrollment shall be rescinded. In the event the falsification is discovered after enrollment has occurred, action(s) consistent with the Health Science Education policies shall be taken, up to and including termination.

In the event of falsification, the prospective student is eligible to reapply for the program after a period of twelve months from the date on the original application. After the 12-month period expires, any information disclosed will be evaluated in accordance with current policy. If a pending case is discovered, and its disposition as "guilty" would render the applicant not eligible for enrollment according to this policy, the application process is stopped until disposition of the case occurs.

To fully understand the circumstances that can disqualify you from being a student in the clinical phase of the program, please be aware of how we define the following terms and use them in this document:

- **Conviction:** Any violation of a law or ordinance for which a prospective student was found guilty by a judge and/or jury or to which the prospective student pleaded guilty.
- **Falsification:** Providing or omitting information contrary to that obtained in a background investigation (unless the background investigation is proven to be inaccurate) and/or providing false, incomplete or misleading information.

***The following convictions will disqualify an applicant or accepted student from the clinical phase of the program:***

1. A sex crime.
2. Exploitation of an endangered adult.
3. Failure to report battery, neglect, or exploitation of an endangered adult.
4. Theft\*, if the prospective student's conviction for theft occurred less than five years before the prospective student's application.\*\*
5. Murder.
6. Voluntary manslaughter.
7. Involuntary manslaughter within the previous five years.\*\*
8. Battery within the past five years.\*\*
9. A felony offense relating to controlled substances within the last five years.\*\*
10. Abuse or neglect of a minor, child or dependent.
11. Failure to report the abuse of a minor, child or dependent.
12. Any act that, if it occurred at the organization, could compromise the safety or well-being of patients, employees, visitors, or volunteers of the organization.

\*Theft includes but is not limited to criminal conversion, receiving stolen property, shoplifting and identity theft.

\*\*Time frames are measured from the date of disposition (conviction).

***In addition, we will not accept any individual:***

13. Who has abused, neglected, or mistreated a patient or misappropriated a patient's property, as reflected in the state nurse aide registry, or
14. Whose name appears in a state Sex Offender Registry.
15. Who has been incarcerated and released unless that individual has prior approval from the program director.

Enrolled students must report, in writing, any criminal charge, conviction, or sanction to their Program Director. For students in clinical courses, the notification must occur at least 24 hours prior to the next clinical class after the charges are filed or after the conviction or sanction occurs, or immediately if the charge/conviction/sanction occurs within 24 hours of the next clinical day. Failure to report a charge, conviction, or sanction could be grounds for immediate termination of participation in the student's clinical activity.

During an investigation of a charge, the student can be suspended. If the charge is related to drugs or alcohol, an immediate drug test is ordered for the student. If positive, the student will be referred for corrective action consistent with the Health Sciences Education policies up to and including termination from the program. If the student is placed on leave of absence to receive therapy, a release must be provided indicating readiness to return to clinical and/or class.

## RADIATION THERAPY TREATMENT

Attitudes about cancer are often unrealistic. Although the current rate of survival of cancer is 50% in adults and with childhood tumors and leukemia at 75%, the pessimistic attitude often expressed by the public and media attracts attention by equating cancer and its treatment with inevitable death. Educating the patient and the public about forms of treatment may alleviate some of the fear associated with the disease.

There are many methods of successfully treating the disease. Currently, three modalities may lead to cure or control—surgery, chemotherapy and radiation therapy. Radiation therapy is the treatment of disease by using fractionated doses of very high levels of ionizing radiation to a confined area. When indicated, therapeutic radiation can extend a patient life span, often leading to a higher quality of life. With proper administration, radiation can kill tumor cells, which in turn alleviates pain caused by cancer invasion.

The first decision cancer treatment most often determines whether the outcome will be successful. The most important factors in this decision are the histopathologic type and grade of cancer, which must be confirmed by surgical biopsy, the extent of the disease, and the decision about which treatment modalities and disease will be most sensitive to. Then a plan for treatment is devised, involving decisions that rest with the patient and physicians.

When radiation therapy is determined to be the best alternative, a patient/physician consultation is scheduled. Ideally, family members who play a major role in the patient's care are also encouraged to be present. During consultation, the physician will review the patient's history and diagnosis and will explain how the treatment plan will be set-up via a process call "simulation" which will help determine parameters useful in the patient's daily treatment time. The physician also will give the patient a brief explanation about the side effects from minor skin irritations and sore throat to major complications such as severe diarrhea and decreased blood counts.

The patient is told about skin care and nutritional balance, along with the requirements that they will see the nurse and the nutritionist and have weekly blood counts. When the physician is satisfied that the patient thoroughly understands the treatment process, a consent form is signed and treatment begins.

Simulation in radiation oncology is one of the most important aspects of the treatment steps. This is where the actual treatment fields are positioned on the patient. The simulation unit is a modified diagnostic x-ray machine with independently moving fluoro capabilities. It can rotate 360 degrees and also has a collimator which also can rotate 360 degrees. Field wires and collimator jaws may be opened to different lengths and widths. All of these functions are important during simulation and can be controlled from a central control panel or a remote hand pendent. The couch moves (patients support assembly) up or down, left or right and in or out as needed to position the patient to the machine at the proper distance.

The patient's position depends upon the area to be treated. Immobilization devices are often needed to assure correct positioning and stability of the patient. Once the patient is positioned, the radiation oncologist and radiation therapist, using fluoro, determine the field size and area. Temporary marks are drawn on the patient's skin to outline the treatment parameters.

An x-ray is taken and verified by the oncologist to assure that the tumor volume is correct and that vital organs and normal tissue are shielded. Once the image is verified, permanent markers in the form of tattoos are made on key areas of the field on the patient's skin.

Photographs of the patient's face and treatment areas are made that will be used for the daily set-up to assure accuracy of field placement. Field parameters, thickness and depths of treatment are recorded and will be used later in the dosimetry (calculations) phase of the treatment plan. The patient is now given an appointment card and is taken to the machine that he/she will be treated on. This is the time for questions.

Once the simulation is complete, calculations will be done to determine how long the machine will be on during the actual treatment. The treatment plan is designed to treat the tumor volume with limited irradiation of normal tissue. The radiation oncologist will prescribe a dose that will be given in a fractionated manner. This allows the tumor to respond while normal tissue can recover without serious side effects.

The treatment plan is often done on a computer. The radiation therapist or dosimetrist types in the field size, dose, machine energy, patient thickness and treatment depth. The result is the daily dose to be given per treatment field.

Isodose curves, which show the radiation distribution in tissue, are used to determine to vital organs as well as to tumor volume. A homogeneous distribution is desired. Heterogeneous distribution can be compensated for by inserting wedges in the beam's path to even out any irregularities. Vital organs can be protected by placing lead or cerrobend custom blocks in the beam's path.

On the first day of treatment, the entire process is explained to the patient, and the radiation therapist answers any questions the patient and family may have. The radiation therapist reassures the patient that he/she is under constant monitoring, both the audio and visual means.

The actual treatment usually lasts only a few minutes, and during this time the patient will not feel, see or smell anything. Because of the biological effects, treatments are usually given daily for a period of two to eight weeks.

After completion of treatment, the patient goes into follow-up care. He/She is evaluated to determine the success of the radiation therapy and to see if any side effects suffered during the procedures have been resolved. A discussion of the outcome is scheduled between patient, his family and the radiotherapist.

If the treatment has not been successful the next step will depend on the type of cancer and how much disease is still present. The patient will probably go through a series of diagnostic tests including x-rays, lab work, CT, MRI and biopsies. He/she may have to undergo surgery, chemotherapy or more radiation.

If the treatment was successful, the patient is encouraged to resume normal activities and to be aware of the possibility of a recurrence of the disease. He/she will be told of the importance of regular checkups and follow-up care with his/her primary care physician. He/she may also be encouraged by the current survival rate for all types of cancer.