RADIATION THERAPY, B.S.

If you major in radiation therapy at Saint Louis University, you will learn to treat cancer patients with high-energy radiation using highly specialized equipment. You will focus on helping plan and administer prescribed doses of radiation to affected areas as directed by a radiation oncologist.

About Radiation Therapists

A radiation therapist is a health care professional skilled in the art and science of medical radiation treatment. Therapists are primarily concerned with the design and administration of radiation therapy treatment, in addition to issues of daily well-being for patients with cancer. A therapist is responsible for administering the prescribed treatment dose of radiation using high-energy linear accelerators. These treatments are provided to cure the patient or control the disease, improving patients' quality of life. Therapists also monitor patients' reactions for radiation side effects and keep highly accurate records of planning, treatment and equipment use.

This profession combines the great satisfaction of helping others during difficult times with sophisticated technological equipment and scientific techniques. Radiation therapists work as part of a multidisciplinary health care team with radiation oncologists, medical physicists, dosimetrists, nurses and other medical specialists to provide the best treatment and support available to their patients.

Program Highlights

The website "Best Health Degrees" recently ranked SLU's radiation therapy program as the nation's No. 8 radiation science program. Advantages of earning your B.S. in radiation therapy at SLU include:

- A curriculum with an interprofessional focus that emphasizes a team approach to health care
- Instruction by professionally credentialed faculty
- Undergraduate opportunities to conduct research and produce projects/papers acceptable for publication and presentation at professional conferences
- Pre-med and pre-physician assistant curriculum options
- A strong science-based curriculum, which prepares students interested in postgraduate professional programs or immediate job placement
- Small class sizes and low student-faculty ratios in the professional component of the radiation therapy program, resulting in more individualized attention to students

Program Effectiveness Data (https://www.slu.edu/doisy/degrees/-pdf/xrt-program-effectiveness-data.pdf)

Curriculum Overview

SLU's Bachelor of Science in Radiation Therapy prepares graduates for entry-level positions as radiation therapists. The program includes all basic sciences and a 12-month intensive XRT curriculum that includes 1,200 hours of clinical practicum. Students are to note that, as part of the radiation therapy professional curriculum, XRT 4340 Treatment Planning and XRT 4440 Clinical Dosimetry are delivered in a synchronous, hybrid blended-learning format.

Upon successfully completing the program, graduates are eligible for national certification to become registered radiation therapists through the American Registry of Radiologic Technologists (ARRT).

Clinical Opportunities

Radiation therapy students participate in a clinical practicum at multiple health care settings in the St. Louis area. This variety of clinical sites allows students to appreciate a variety of departmental structures, ranging from high-end research facilities to community hospitals.

Careers

There are many career opportunities for radiation therapists. Graduates can work as radiation therapists in hospitals and clinics and may also seek positions in health care administration, equipment sales and teaching.

Some graduates further their education to pursue careers in dosimetry and medical physics. Radiation therapy provides excellent pre-professional curricula for those interested in medicine or becoming physician assistants. Many students attend graduate school part-time with assistance from their places of employment.

Some jobs are classified as traveling jobs where the employee provides temporary help to departments that are short-staffed for a short period. These therapists travel regularly, with the length of stay and the location varying.

Major focus areas for radiation therapists are:

- Delivering treatments using linear accelerators or similar equipment using ionizing radiation
- Assessment and care of patients undergoing radiation therapy

The general salary range depends on geographic location, years of experience and education. Radiation therapists earned a mean annual wage of $98,340 in 2022, according to the Bureau of Labor Statistics.

Transfer Credit or Second Bachelor's Degree

Undergraduate students may receive credit for prior learning. This includes college credits earned during or after high school, credit by exam and credit by assessment. Credits may be applied towards the University Core or program requirements, or count as general electives. More details can be found in the Transfer Credit policy (https://catalog.slu.edu/academic-policies/academic-policies-procedures/transfer-credit/).

Students seeking a second bachelor's degree may apply their previous coursework toward program graduation requirements following the same Transfer Credit policy (https://catalog.slu.edu/academic-policies/academic-policies-procedures/transfer-credit/). The specific University Core requirements for second bachelor's degree students can be found on the University Core page (https://catalog.slu.edu/academic-policies/academic-policies-procedures/university-core/).

More information on how credits transfer to SLU can be found on the Transfer Admission page (https://www.slu.edu/admission/transfer/credits/).

Admission Requirements

Freshman Applicants

Solid academic performance in college preparatory coursework is a primary concern when reviewing a first-year applicant's file. Saint Louis University has moved to a test-optional admission process for all undergraduate programs. Applicants may submit standardized test scores, but those who choose not to will not be disadvantaged in any way in the admission process.

Admission criteria include:

- Minimum cumulative GPA of 2.80 on a 4.00 scale for all applicants.
- Professional coursework in the radiation therapy program is concentrated in the fourth year of the curriculum. Students may enter as freshmen or transfer students, depending on program availability.

Transfer Applicants

The minimum college transfer GPA is 2.80/4.00.

International Applicants

All admission policies and requirements for domestic students apply to international students, along with the following:

- You must demonstrate English language proficiency (https://catalog.slu.edu/academic-policies/office-admission/undergraduate/english-language-proficiency/).
- Proof of financial support must include:
  - A letter of financial support from the person(s) or sponsoring agency funding your time at Saint Louis University.
  - A letter from the sponsor's bank verifying that the funds are available and will be so for the duration of your study at the University.
- Academic records, in English translation, of students who have undertaken postsecondary studies outside the United States must include the courses taken and/or lectures attended, practical laboratory work, the maximum and minimum grades attainable, the grades earned or the results of all end-of-term examinations, and any honors or degrees received. WES and ECE transcripts are accepted.

Tuition

Tuition	Cost Per Year
Undergraduate Tuition	$54,760

Additional charges may apply. Other resources are listed below:

Net Price Calculator (https://www.slu.edu/financial-aid/tuition-and-costs/calculator.php)

Information on Tuition and Fees (https://catalog.slu.edu/academic-policies/student-financial-services/tuition/)

Miscellaneous Fees (https://catalog.slu.edu/academic-policies/student-financial-services/fees/)

Information on Summer Tuition (https://catalog.slu.edu/academic-policies/student-financial-services/tuition-summer/)

Accreditation

The Radiation Therapy Program at Saint Louis University is fully accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), having been awarded an eight-year accreditation. It is the only JRCERT-accredited radiation therapy program in the state of Missouri. The program's next scheduled reaccreditation review by the JRCERT will be July 2025. The program's current award is eight years. General program accreditation information and the current accreditation award letter can be found on the JRCERT website (https://www.jrcert.org/programs/saint-louis-university-2/).

Joint Review Committee on Education in Radiological Technology (JRCERT) (https://www.jrcert.org/)
20 N. Wacker Drive, Suite 2850
Chicago, Illinois 60606-3182
312-704-5300
jrcert.org (http://www.jrcert.org)

For more information about the Saint Louis University radiation therapy program's goals, program outcomes, credentialing exam pass rates, job placement rates, technical standards, clinical site and program-specific requirements and fees, please see the additional program information and fees.

View Additional Program Information and Fees (PDF) (https://www.slu.edu/doisy/degrees/-pdf/rt-accreditation.pdf)

Learning Outcomes

Doisy College of Health Sciences Learning Outcomes

1. The radiation therapy student will be able to articulate ethical behaviors in clinical practice.
2. The radiation therapy student will evidence appropriate written communication appropriate for the profession of radiation therapy.
3. The radiation therapy student will demonstrate complex radiation therapy treatment procedures.
4. The radiation therapy student will present a complex radiation therapy treatment procedure to an audience.
5. The radiation therapy student will demonstrate professional behaviors in the clinical setting.

Radiation Therapy Programmatic Mission

The radiation therapy program at Saint Louis University's Doisy College of Health Sciences is dedicated to preparing liberally educated, competent, caring and socially responsible radiation therapists committed to clinical and scholarly excellence.

Radiation Therapy Program Learning Outcomes and Goals

Goal A: Students will be clinically competent

1. The radiation therapy student will position patients as directed in treatment record.
2. The radiation therapy student will set treatment machine as indicated in patient treatment record.
3. The radiation therapy student will practice patient confidentiality.
4. The radiation therapy student will practice proper radiation protection and safety.

Goal B: Students will demonstrate problem-solving and critical-thinking skills.

1. The radiation therapy student will demonstrate complex radiation therapy procedures.

2. The radiation therapy student will present a complex radiation therapy treatment procedure to an audience.
3. The radiation therapy student will demonstrate appropriate problem-solving skills for the practice of radiation therapy when provided with a case for analysis.

Goal C: Students will demonstrate effective communication skills.

1. The radiation therapy student will appropriately communicate with patients.
2. The radiation therapy student will show evidence of appropriate written communication for the profession of radiation therapy.
3. The radiation therapy student will demonstrate proper presentation skills.

Goal D: Students will demonstrate professional growth and development.

1. The radiation therapy student will demonstrate professional behavior.
2. The radiation therapy student will be able to articulate ethical behaviors in clinical practice.
3. The radiation therapy student will have knowledge of professional organizations.
4. The radiation therapy student will demonstrate the concepts of compassionate care.

The program annually tracks student learning outcomes as they relate to the above student goals.

Requirements

Students must earn a "C" or better in math and science courses.

Code	Title	Credits
Undergraduate University Core (https://catalog.slu.edu/academic-policies/academic-policies-procedures/university-core/)		**32-35**
Program Requirements		
BIOL 1240 & BIOL 1245	General Biology: Information Flow and Evolution and Principles of Biology I Laboratory	4
CHEM 1080 & CHEM 1085	Principles of Chemistry 1 Lecture and Principles of Chemistry 1 Lab	4
DIET 2080	Foundations in Nutrition	3
ENGL 1900	Advanced Strategies of Rhetoric and Research	3
HCE 1600	Embodiment, Life, and Death in Context	3
HIM 4750	Fundamentals of Clinical Medicine	3
HSCI 2100	Health Care Management	3
HSCI 2200	Medical Terminology	3
HSCI 3200	Aspects of Health Law	3
HSCI 3300 & HSCI 3310	Anatomy & Physiology I and Anatomy & Physiology I Lab	4
HSCI 3400 & HSCI 3410	Anatomy and Physiology Lecture II and Anatomy & Physiology II Lab	4
HSCI 4700	Quality Management and Performance Improvement	3
IPE 2100	Interprofessional Collaboration and Healthcare in Global Context	3
IPE 4200	Applied Decision-Making in Interprofessional Practice	3
IPE 4900	Interprofessional Community Practicum	3
MATH 1400	Pre-Calculus	3
PHYS 1220 & PHYS 1235	General Physics I and General Physics I Lab	4
PHYS 1240 & PHYS 1255	General Physics II and General Physics II Lab	4
PSY 1010	General Psychology	3
SOC 1100	Introduction to Sociology *	3
or SOC 1110	Introduction to Sociology: Diversity Emphasis	
or SOC 1120	Introduction to Sociology: Diversity and Health Emphasis	
or SOC 1180	World Geography	
STAT 1300	Elementary Statistics with Computers	3
Radiation Therapy		
XRT 4310	Radiation Physics	2
XRT 4320	Radiation Therapy Practice I	3
XRT 4330	Treatment Techniques	3
XRT 4340	Treatment Planning	3
XRT 4350	Clinical Practicum I	10
XRT 4360	Emerging Technologies	2
XRT 4420	Radiation Therapy Practice II	3
XRT 4440	Clinical Dosimetry	3
XRT 4450	Clinical Practicum II	8
XRT 4500	Radiation Oncology Patient Care and Quality Management	3
XRT 4510	Radiobiology and Radiation Protection	2
XRT 4800	Capstone in Radiation Therapy	1
Total Credits		**127-129**

* All of the sociology courses listed meet professional curriculum requirements.

Second Degree Option for students with a Bachelor's Degree

Total program credits vary based on transfer credits. Each student will work with their advisor to create their specific course plan.

Continuation Standards

Students must maintain a 2.80 cumulative GPA to remain in Good Standing in the Radiation Therapy, B.S.

Students must earn a "C" or better in math and science courses. Students are allowed one opportunity to repeat a math or science course if they earn a grade of “C-” or below. On the second attempt, they must achieve a grade of “C” or higher, or they will be dismissed from the program.

Roadmap

Roadmaps are recommended semester-by-semester plans of study for programs and assume full-time enrollment unless otherwise noted.

Courses and milestones designated as critical (marked with !) must be completed in the semester listed to ensure a timely graduation. Transfer credit may change the roadmap.

This roadmap should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their

advisor/mentor each semester. Requirements, course availability and sequencing are subject to change.

Course	Title	Credits
Year One		
Fall		
CHEM 1080 & CHEM 1085	Principles of Chemistry 1 Lecture and Principles of Chemistry 1 Lab	4
CORE 1000	Ignite First Year Seminar	2-3
CORE 1500	Cura Personalis 1: Self in Community	1
ENGL 1900	Advanced Strategies of Rhetoric and Research (satisfies CORE 1900)	3
HCE 1600	Embodiment, Life, and Death in Context (satisfies CORE 1600)	3
	Credits	**13-14**
Spring		
IPE 2100	Interprofessional Collaboration and Healthcare in Global Context	3
MATH 1400	Pre-Calculus	3
PSY 1010	General Psychology (satisfies CORE 3600)	3
STAT 1300	Elementary Statistics with Computers (satisfies CORE 3200)	3
	Credits	**12**
Year Two		
Fall		
BIOL 1240 & BIOL 1245	General Biology: Information Flow and Evolution and Principles of Biology I Laboratory (satisfies CORE 3800)	4
CORE 1200	Eloquentia Perfecta 2: Oral and Visual Communication	3
CORE 2800	Eloquentia Perfecta 3: Creative Expression	2-3
IPE 4200	Applied Decision-Making in Interprofessional Practice	3
CORE 3400	Ways of Thinking: Aesthetics, History, and Culture	3
	Credits	**15-16**
Spring		
CORE 1700	Ultimate Questions: Philosophy	3
CORE 2500	Cura Personalis 2: Self in Contemplation	0
DIET 2080	Foundations in Nutrition	3
HSCI 2100	Health Care Management	3
HSCI 2200	Medical Terminology	3
SOC 1100	Introduction to Sociology	3
	Credits	**15**
Year Three		
Fall		
HIM 4750	Fundamentals of Clinical Medicine	3
HSCI 3200	Aspects of Health Law	3
HSCI 3300 & HSCI 3310	Anatomy & Physiology I and Anatomy & Physiology I Lab	4
PHYS 1310	College Physics I	3
PHYS 1320	College Physics I Laboratory	1
	Credits	**14**
Spring		
HSCI 3400 & HSCI 3410	Anatomy and Physiology Lecture II and Anatomy & Physiology II Lab	4
HSCI 4700	Quality Management and Performance Improvement	3
IPE 4900	Interprofessional Community Practicum (satisfies CORE 4000)	3
PHYS 1330	College Physics II	3
PHYS 1340	College Physics II Laboratory	1
	Credits	**14**
Year Four		
Fall		
XRT 4310	Radiation Physics	2
XRT 4320	Radiation Therapy Practice I	3
XRT 4330	Treatment Techniques	3
XRT 4340	Treatment Planning	3
XRT 4360	Emerging Technologies	2
XRT 4500	Radiation Oncology Patient Care and Quality Management	3
XRT 4510	Radiobiology and Radiation Protection	2
	Credits	**18**
Spring		
XRT 4350	Clinical Practicum I (! satisfies CORE 3500)	10
XRT 4420	Radiation Therapy Practice II	3
XRT 4440	Clinical Dosimetry	3
XRT 4800	Capstone in Radiation Therapy	1
	Credits	**17**
Summer		
XRT 4450	Clinical Practicum II	8
	Credits	**8**
	Total Credits	**126-128**

2+SLU

2+SLU programs provide a guided pathway for students transferring from a partner institution.

- Radiation Therapy, B.S. (STLCC 2+SLU) (https://catalog.slu.edu/academic-policies/office-admission/undergraduate/2plusslu/stlcc/radiation-therapy/)

Contact Us

Apply for Admission (https://www.slu.edu/admission/)

Contact Doisy College of Health Sciences
Recruitment specialist
314-977-2570
dchs@health.slu.edu