

Radiation Sciences, BS

Radiation Therapy

A radiation therapist is a healthcare professional specializing in the administration of radiation treatments to patients with cancer and certain benign conditions. As part of a multidisciplinary team, they work closely with radiation oncologists, medical physicists, dosimetrists, and oncology nurses.

A radiation therapist's primary duties include treatment delivery, patient care, equipment operation, and treatment planning.

Radiation therapists play a critical role in cancer care, combining technical expertise with patient-centered care to improve treatment outcomes. They typically work in hospitals, cancer treatment centers, and freestanding clinics. With additional education and experience, radiation therapists can advance to roles such as dosimetrists, educators, researchers, or leadership and administrative positions.

Admission to this two-year program is selective and competitive; acceptance is not guaranteed. Students must satisfy all UI admission requirements, complete all prerequisites, and be accepted into the radiation therapy professional program following an application and selection process. See the Radiation Sciences website for more information.

Radiation Therapy

The radiation therapy professional program teaches the theory and techniques of radiation therapy technology, with emphasis on competence in areas of oncology treatment planning, treatment delivery, dosimetry, and use of megavoltage radiation-producing equipment to administer treatment. Students participate in clinical education in radiation therapy. Radiation therapy students also complete coursework in sectional anatomy, computed tomography (CT) procedures and physics, and magnetic resonance imaging (MRI) fundamentals.

Upon completing the program, graduates are eligible to apply for the national certification exam in radiation therapy. Students will have also completed didactic coursework for the national certification exam in CT and MRI, but not the clinical component.

Students who have completed a total of 60 s.h., including prerequisite courses by June 1, are eligible to apply to this program. Students typically apply to this two-year program during their second year and begin it in the fall of their junior year. The application deadline is Jan. 15.

The radiation therapy program accepts up to ten students each year into one of the two track options. Students in both tracks attend didactic classes on campus in Iowa City during their junior year and online during their senior year.

Radiation Therapy: Required Courses

Upon acceptance into the radiation therapy professional program, students will complete required courses and internships during their third and fourth years.

Course #	Title	Hours
All of these:		
RSCT:4100	Sectional Anatomy for Imaging Sciences	3
RSCT:4120	Computed Tomography Procedures I	4
RSCT:4130	Computed Tomography Physical Principles and QC	4
RSMR:4110	Fundamentals for the MRI Technologist	3
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Introduction to Radiation Safety and Radiobiology	1
RSP:3210	Medical Ethics and Law	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration	2
RSP:4110	Research Methodology for Radiation Sciences	3
RSTH:3100	Introduction to Radiation Therapy	2
RSTH:3101	Introduction to Radiation Therapy Lab	1
RSTH:3110	Medical Physics I	2
RSTH:3120	Radiation Therapy Clinical Internship I	3
RSTH:3132	Radiobiology in Radiation Therapy	1
RSTH:3205	Principles of Radiation Therapy I	3
RSTH:3206	Principles of Radiation Therapy I Lab	1
RSTH:3215	Medical Physics II	2
RSTH:3225	Radiation Therapy Clinical Internship II	3
RSTH:3325	Radiation Therapy Clinical Internship III	4
RSTH:4105	Principles of Radiation Therapy II	2
RSTH:4125	Radiation Therapy Clinical Internship IV	4
RSTH:4225	Radiation Therapy Clinical Internship V	5
RSTH:4230	Radiation Therapy Capstone	3

Radiation Therapy Recommended Pre-Major Work

The following courses are recommended prior to applying to the radiation therapy program.

Course #	Title	Hours
All of these:		
RSP:1100	Introduction to the Radiation Sciences	1
HHP:2110	Human Anatomy Laboratory	1
PSY:1010	Your Brain Unlocked: Learning About Learning	1
STAT:1020	Elementary Statistics and Inference	3
One of these:		
BIOL:1140	Human Biology: Nonmajors	4
HHP:1400	Human Anatomy and Physiology	3
One of these:		
BAIS:1500	Business Computing Essentials	2
CS:1020	Principles of Computing	3