Radiation Sciences, BS

Radiation Therapy

A radiation therapist functions as a member of a team with physicians (radiation oncologist), physicists, dosimetrists, and nurses to provide treatment using ionizing radiation sources for patients with malignant and some benign diseases. The radiation therapist is responsible for the daily delivery of the prescribed treatment according to the treatment plan prepared by their physician in consultation with the medical physicist. The therapist works with the oncology nurse in the daily assessment of the patient's status and needs during their course of therapy. Radiation therapists are employed in radiation therapy facilities located in hospitals and freestanding centers.

Students completing the radiation therapy program are trained to deliver therapeutic radiation. This two-year program is selective and competitive; acceptance is not guaranteed. Since the program duration is two years, students must have completed a total of 60 s.h., including prerequisite courses by June 1, prior to the start of the program. 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 Radiation Therapy on the Radiation Sciences Program website. Clinical and didactic education is provided by University of Iowa Hospitals & Clinics faculty in the Department of Radiation Oncology, with a hands-on component under the close guidance of licensed radiation therapists.

Radiation Therapy

The radiation therapy professional program teaches 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 completed the coursework but not the clinical component to be eligible to apply for the national certification exam in computed tomography and/or magnetic resonance imaging.

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 fall of their junior year. Application deadline is Jan. 15. Eight students are accepted into this track each 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 (online)	3
RSCT:4120	Computed Tomography Procedures I (online)	4
RSCT:4130	Computed Tomography Physical Principles and QC (online)	4
RSMR:4110	Fundamentals for the MRI Technologist (online)	3
RSP:2110	Pathology for Radiation Sciences	2
RSP:2120	Patient Care for the Radiation Sciences	3
RSP:3130	Radiation Safety and Radiobiology	2
RSP:3210	Medical Ethics and Law	2
RSP:3220	Radiation Sciences Quality Management and Health Care Administration (online)	2
RSP:4110	Research Methodology for Radiation Sciences	3
RSTH:3100	Introduction to Radiation Therapy	3
RSTH:3110	Medical Physics I	2
RSTH:3120	Radiation Therapy Clinical Internship I	3
RSTH:3205	Principles of Radiation Therapy I	3
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

In addition to the prerequisite courses listed under Requirements in this section of the catalog, the program recommends the following coursework.

Course #	Title	Hours
All of these:		
RSP:1100	Introduction to the Radiation Sciences	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