Radiation Sciences, BS

Requirements

The Bachelor of Science with a major in radiation sciences requires a minimum of 120 s.h. of credit. Work for the on-campus degree includes a set of courses that are prerequisite to entering the radiation sciences major, completion of one of nine radiation sciences professional programs, and elective coursework sufficient to complete the minimum of 120 s.h. required for graduation. Students must complete the radiation sciences professional program at the University of Iowa. Registered radiologic technologists, nuclear medicine technologists, and radiation therapists interested in earning the degree through distance education should see RT to BS (Online) [p.] in this section of the catalog.

Applicants must first be admitted to the University of Iowa, likely as College of Liberal Arts and Sciences radiation sciences interest students, and complete all courses that are prerequisite to the radiation sciences major (including approved transfer equivalents) by June 1 to be eligible to apply to the professional program(s) by the January 15 deadline. The only exception to this deadline is that the physics course required for the diagnostic medical sonography program may be completed in the summer session. Prerequisite courses vary slightly depending on which professional program a student wishes to enter. Accepted students will start the two- or three-year program in the fall. Acceptance into a professional program or the major is not guaranteed.

Students who have declared a radiation sciences interest but have not yet applied and been accepted to a professional program are advised at the University of Iowa Academic Advising Center. After they have been accepted to a professional program, they are advised by the Radiation Sciences Office of Student Affairs.

Once they have completed the professional program and all other requirements for graduation, students are granted a Bachelor of Science degree and are eligible to apply for national certification exams for their program's specialty area(s).

The Bachelor of Science with a major in radiation sciences requires the following coursework.

Prerequisites to the Radiation Sciences Major

Students must complete the following prerequisite courses (28–33 s.h.) by the end of the spring semester before they enter the program and the major. Students may complete physics for the sonography program in the summer. Additionally, students must have earned an overall cumulative college grade-point average (GPA) of at least 2.50, a UI GPA of at least 2.00, and a 2.00 term GPA in the spring/summer semesters immediately preceding the start of the professional program. Students who wish to enter either of the two-year professional programs (radiologic technology or radiation therapy) must complete a total of 60 s.h. of college coursework, including the following prerequisites, by the end of the spring semester before they enter the program and the major.

Students are advised for success based on academic strength, not necessarily for a four-year plan. Prerequisite courses for the three-year professional programs (multi-credentialed radiologic technology and diagnostic medical sonography) may take more than one year to complete. Prerequisite courses for the radiologic technology and radiation therapy professional programs may take more than two years to complete.

Rhetoric

Course #	Title	Hours
This course:		
RHET:1030	Rhetoric: Writing and Communication	4

Anatomy

Course #	Title	Hours
One of these:		
HHP:2100	Human Anatomy	3
HHP:3115	Anatomy for Human Physiology With Lab	5

Physiology

Course #	Title	Hours
One of these:		
HHP:2400	Fundamentals of Human Physiology	3
HHP:3500	Human Physiology	3
HHP:3550	Human Physiology With Laboratory	5

Physics

Course #	Title	Hours
Students interested in diagnostic medical sonography or radiation therapy programs complete one of these:		
PHYS:1400	Basic Physics	3-4
PHYS:1511	College Physics I	4

Quantitative or Formal Reasoning

Course #	Title	Hours
One of these:		
MATH:1020	Elementary Functions	4
MATH:1440	Mathematics for the Biological Sciences	4

A more advanced mathematics course

Psychology

Course #	Title	Hours
This course:		
PSY:1001	Elementary Psychology	3

Medical Terminology

Course #	Title	Hours
This course:		
CLSA:3750	Medical and Technical Terminology	2

Culture, Society, and the Arts

Two courses for 3 s.h. each in two of these areas.

- Understanding Cultural Perspectives
- Historical Perspectives
- International and Global Issues
- Literary, Visual, and Performing Arts
- Values and Society

See GE CLAS Core (College of Liberal Arts and Sciences) in the catalog for approved courses in the areas listed.

Recommended Pre-Major Work

The Radiation Sciences Program recommends that before students submit an application to a radiation sciences professional program and the major, they job-shadow a professional who works in their area of interest and gain hands-on patient care experience. Each professional program lists recommended courses that may be completed in addition to the required courses.

Electives

In order to earn the minimum of 120 s.h. required for graduation, students may need to complete elective coursework in addition to the prerequisite courses and professional program. They should plan their elective courses in consultation with their advisor.

Radiation Sciences Professional Programs

Students must complete one of the following on-campus radiation sciences professional programs at University of Iowa Health Care:

- radiologic technology [p.];
- radiologic technology and breast imaging [p.];
- radiologic technology and cardiovascular interventional [p.];
- radiologic technology and computed tomography [p.];
- radiologic technology and magnetic resonance imaging [p.];
- diagnostic medical sonography and cardiac/vascular [p.];
- diagnostic medical sonography and general/vascular [p.]; or
- radiation therapy [p.] (two track options)

Each program offers modality-specific didactic and supervised clinical education courses. Graduates of the professional programs and associated internships are eligible to apply for one or more certification exams.

The diagnostic medical sonography programs span three years, the radiation therapy program spans two years, and the radiologic technology programs span two or three years. Each program begins in the fall.

Admission to all radiation sciences professional programs is competitive; each program accepts a limited number of students and acceptance is not guaranteed.

Students participating in clinical rotations at non-UI Health Care facilities as part of their professional program are required to meet the immunization and testing requirements of those facilities in addition to those required at UI Health Care locations.