Radiation Sciences, BS

RT to BS (Online)

The RT to BS is an online program designed for registered radiologic technologists, radiation therapists, and nuclear medicine technologists who wish to earn a Bachelor of Science degree with a major in radiation sciences by distance education. The program requires a minimum of 120 s.h. Students who successfully complete a radiologic technology (RT) program and pass the board certification exam are awarded 60 s.h. of credit. Students who successfully complete a radiation therapy (RTT) or a nuclear medicine technology (NMT) program and pass the board certification exam are awarded 45 s.h. of credit. Students are also awarded credit for equivalent coursework that is prerequisite to entering the major. Upon admission to the major, students complete a second modality online, with or without a practicum.

Students choose coursework in any of the five online modalities: breast imaging (BI), cardiovascular interventional (CVI), computed tomography (CT), or magnetic resonance imaging (MRI). This program of study does not require a practicum. However, practicum opportunities at University of Iowa Health Care may be available for application. Acceptance into a practicum is not guaranteed. For more information, visit the Radiation Sciences website.

In order to be admitted to the radiation sciences major, students must pass the American Registry of Radiologic Technologists (ARRT) radiography (R), radiation therapy (T), nuclear medicine technology (N), or Nuclear Medicine Technology Certification Board (NMTCB) exam. They must also have completed all coursework prerequisite to entering the major with a grade-point average of at least 2.50, not including RT, RTT, or NMT program courses. Students may count approved transfer credit toward the required prerequisites; learn more by visiting Transfer Courses on MyUI.

Applicants for admission to the University of Iowa whose first language is not English are strongly encouraged to complete the university's English Proficiency Evaluation and satisfy the university's English Proficiency Requirements.

The radiation sciences major requires students to complete a minimum of two years of a high school world language prior to admission.

For additional information on UI admission requirements, contact the University of Iowa Admissions.

Prerequisites to the Radiation Sciences Major

In addition to the completion of an RT, RTT, or NMT program, students must complete the following prerequisite courses (25–29 s.h.) before they may enter the radiation sciences major.

Rhetoric

Course #	Title	Hours
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

Natural Sciences

Course #	Title	Hours
One of these:		
BIOL:1140	Human Biology: Nonmajors	4
CHEM:1070	General Chemistry I	3
CHEM:1110	Principles of Chemistry I	4
HHP:2400	Fundamentals of Human Physiology	3
HHP:3500	Human Physiology	3
HHP:3550	Human Physiology With Laboratory	5
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

Psychology

Course #	Title	Hours
PSY:1001	Elementary Psychology	3

Medical Terminology

Course #	Title	Hours
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.

Once students are admitted to the Carver College of Medicine and the radiation sciences major, they must at least complete their final consecutive 30 s.h. at the University of Iowa, including the online modality courses and practicum (optional).

Required Coursework

Students complete the following with a C or higher.

Core Courses

Course #	Title	Hours
Both of these:		
RSCI:4110	Vascular Anatomy	3
RSCT:4100	Sectional Anatomy for Imaging Sciences	3

Modality Courses

Course #	Title	Hours
24 s.h. from these:		
RSBI:3310	Patient Care for Breast Imaging	3
RSBI:4110	Breast Imaging Procedures and Analysis	3
RSBI:4120	Anatomy and Pathology for Breast Imaging	2
RSBI:4130	Breast Imaging Acquisitions and Principles	2
RSBI:4210	Breast Imaging Advanced Procedures and Analysis	3
RSBI:4220	Quality Control in Breast Imaging	3
RSBI:4308	Breast Imaging Practicum	1-6
RSCI:4120	CVI Principles	4
RSCI:4130	Electrocardiogram and Hemodynamics	3
RSCI:4140	CVI Peripheral Procedures and Pathology	3
RSCI:4150	CVI Neurology and Nonvascular Procedures and Pathology	3
RSCI:4160	CVI Cardiac Procedures and Pathology	4
RSCI:4308	Cardiovascular Interventional Practicum	1-6
RSCT:4120	Computed Tomography Procedures I	4
RSCT:4125	Computed Tomography Procedures II	4
RSCT:4130	Computed Tomography Physical Principles and QC	4
RSCT:4308	Computed Tomography Practicum	1-6
RSMR:4110	Fundamentals for the MRI Technologist	3
RSMR:4120	MRI Procedures I	4
RSMR:4130	MRI Procedures II	4
RSMR:4140	MRI Acquisition and Principles I	3
RSMR:4150	MRI Acquisition and Principles II	3
RSMR:4308	Magnetic Resonance Imaging Practicum	1-6

A practicum is not required. Acceptance into a practicum is not guaranteed

Students may apply up to two of the following multidisciplinary courses toward the modality courses requirement.

Course #	Title	Hours
Up to two of these:		
ASP:1800	Aging Matters: Introduction to Gerontology	3
ASP:3150	Psychology of Aging	3
CPH:1400	Fundamentals of Public Health	3
CSED:4111	Building Leadership and Success at Work	3
CSED:4140	Foundations of Leadership for Community Agencies	3
CSED:4175	Motivational Interviewing	3
CSED:4194	Interpersonal Effectiveness	3
CSED:4197	Citizenship in a Multicultural Society	3
ECON:1200	Principles of Macroeconomics	4
GHS:3850	Promoting Health Globally	3
HHP:2130	Human Development Through the Life Span	3
MGMT:2100	Introduction to Management	3
MGMT:3500	Nonprofit Organizational Effectiveness I	3
PSQF:1075	Educational Psychology and Measurement	3
PSQF:2700	Introduction to Understanding Trauma and Resilience	3
RHET:2135	Decoding Disability: Rhetoric of Access and Accommodations	3
SOC:3510	Medical Sociology	3
SOC:4225	The Social Psychology of Leadership	3
STAT:1020	Elementary Statistics and Inference	3

Electives

Students choose elective coursework to complete the minimum 120 s.h. required and the final consecutive 30 s.h. necessary to qualify for graduation.