

BACHELOR OF SCIENCE IN RADIOLOGIC SCIENCES

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Radiographers are essential members of the healthcare team. Their knowledge of radiation protection, physics and biology, as well as technical procedures, allows them to deliver the safest and highest quality patient care through the use of multiple imaging modalities. In the evolving world of medicine, high technology imaging has become multifaceted, both in modalities and operationally.

To prepare students for careers in radiography, Quinnipiac University's Department of Diagnostic Imaging offers a BS in Radiologic Sciences. The program offers didactic, laboratory and clinical training in diverse aspects of radiography including patient care, radiation safety, image production and procedures for the student who is motivated to become a member of the imaging profession. Students complete the program in a three-year accelerated format.

The first year of the program consists of University Curriculum studies and an introduction to the profession. The professional component of the program accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT) begins in the second year of study. During the second and third years, students participate in didactic radiography classes, laboratory sessions on campus and clinical education at a variety of our clinical affiliates. The curriculum is structured for immediate application of knowledge and skills developed in the classroom and laboratory to be applied to the care of patients in the clinical setting.

At the end of the third year, students are eligible for graduation with a bachelor's degree in Radiologic Sciences, and to sit for the American Registry of Radiologic Technologists (ARRT) certification examination. Upon successful completion of the bachelor's degree and ARRT certification exam, students are eligible to apply to Quinnipiac's one-year MHS Advanced Medical Imaging and Leadership (<https://catalog.qu.edu/graduate-studies/health-sciences/advanced-medical-imaging-and-leadership-program/>) program.

The BS in Radiologic Sciences program requires 121 credits for degree completion.

The designated Radiologic Sciences course curriculum is subject to modification as deemed necessary to maintain a high-quality educational experience. The Academic Standing and Progression Committee recommendations regarding student progression, discipline or dismissal will be considered on a case-by-case basis.

| Code | Title | Credits |
|---|------------------------------------|---------|
| University Curriculum (https://catalog.qu.edu/academics/university-curriculum/) | | 46 |
| Radiologic Science Courses | | |
| RS 100 | Fundamentals of Diagnostic Imaging | 1 |
| RS 101 | Introduction to Diagnostic Imaging | 3 |
| RS 201 | Human Anatomy Imaging I | 1 |
| RS 202 | Human Anatomy Imaging II | 1 |

| | | |
|---------------|---|---|
| RS 212 & 212L | Radiographic Procedures I and Laboratory Practicum I | 4 |
| RS 215 | Radiation Safety and Protection | 3 |
| RS 222 & 222L | Radiographic Procedures II and Laboratory Practicum II | 5 |
| RS 232 & 232L | Radiographic Procedures III and Laboratory Practicum III | 5 |
| RS 241 & 241L | Radiographic Image Production and Evaluation and Radiographic Image Production and Evaluation Lab I | 4 |
| RS 242 & 242L | Radiographic Image Production and Evaluation II and Radiological Processing and Exposure Lab | 4 |
| RS 250 | Radiologic Clinical Education I | 2 |
| RS 253 | Radiologic Clinical Education II | 4 |
| RS 254 | Radiologic Clinical Education III Education IV | 3 |
| RS 255 | Radiologic Clinical Education IV | 3 |
| RS 260 | Radiographic Physics and Instrumentation | 3 |
| RS 290 & 290L | Advanced Radiographic Procedures IV and Laboratory Practicum | 4 |
| RS 297 & 297L | Methods of Patient Care and Methods of Patient Care Lab | 3 |
| RS 318 | Pathology for Imaging Sciences | 3 |
| RS 414 | Research: Analysis and Critique (DMS 414) | 3 |
| RS 499 | Capstone (DMS 499) | 3 |

Additional Course Requirements ¹

| | | |
|----------------|---|---|
| BIO 103 | Concepts in Human Biology | 3 |
| BIO 211 & 211L | Human Anatomy and Physiology I and Human Anatomy and Physiology Lab I | 4 |
| BIO 212 & 212L | Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab | 4 |
| HSC 202 | Medical Terminology | 2 |
| MA 275 | Biostatistics ¹ | |
| PHY 101 & 101L | Elements of Physics and Elements of Physics Lab ¹ | |

Total Credits **121**

¹ MA 275 and PHY 101/PHY 101L (or CHE 101/CHE 101L) are RS course requirements that are included in the University Curriculum credits.

This is a *recommended* plan of study as course plans are subject to change. The curriculum for the professional courses in the program is subject to modification as deemed necessary to maintain a high-quality educational experience and keep current with best practices in the profession.

All radiologic sciences course requirements must be completed in the appropriate semester as indicated in this course plan. Successful

completion of the outlined curriculum will meet requirements for graduation.

| Course | Title | Credits |
|------------------------------|---|-----------|
| First Year | | |
| Fall Semester | | |
| RS 100 | Fundamentals of Diagnostic Imaging | 1 |
| EN 101 | Introduction to Academic Reading and Writing (UC Writing) | 3 |
| PHY 101 & 101L | Elements of Physics or Fundamentals of General, Organic and Biological Chemistry I or CHE 101/101L | 4 |
| FYS 101 | First-Year Seminar (UC Foundations Inquiry) | 3 |
| MA 275 | Biostatistics (UC Math) | 3 |
| University Curriculum course | | 3 |
| Credits | | 17 |
| Spring Semester | | |
| EN 102 | Academic Writing and Research (UC Writing 2) | 3 |
| RS 101 | Introduction to Diagnostic Imaging | 3 |
| HSC 202 | Medical Terminology | 2 |
| BIO 103 | Concepts in Human Biology ¹ | 3 |
| University Curriculum course | | 3 |
| University Curriculum course | | 3 |
| Credits | | 17 |
| Summer Semester | | |
| University Curriculum course | | 3 |
| University Curriculum course | | 3 |
| Credits | | 6 |
| Second Year | | |
| Fall Semester | | |
| RS 212 & 212L | Radiographic Procedures I and Laboratory Practicum I | 4 |
| RS 241 & 241L | Radiographic Image Production and Evaluation and Radiographic Image Production and Evaluation Lab I | 4 |
| RS 297 & 297L | Methods of Patient Care and Methods of Patient Care Lab | 3 |
| BIO 211 & 211L | Human Anatomy and Physiology I and Human Anatomy and Physiology Lab I | 4 |
| University Curriculum course | | 3 |
| Credits | | 18 |
| Spring Semester | | |
| RS 222 & 222L | Radiographic Procedures II and Laboratory Practicum II | 5 |
| RS 242 & 242L | Radiographic Image Production and Evaluation II and Radiological Processing and Exposure Lab | 4 |
| RS 250 | Radiologic Clinical Education I | 2 |
| BIO 212 & 212L | Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab | 4 |
| University Curriculum course | | 3 |
| Credits | | 18 |

Summer Semester

| | | |
|------------------------------|----------------------------------|----------|
| RS 253 | Radiologic Clinical Education II | 4 |
| University Curriculum course | | 3 |
| Credits | | 7 |

Third Year

Fall Semester

| | | |
|----------------|--|-----------|
| RS 201 | Human Anatomy Imaging I | 1 |
| RS 232 & 232L | Radiographic Procedures III and Laboratory Practicum III | 5 |
| RS 254 | Radiologic Clinical Education III Education IV | 3 |
| RS 260 | Radiographic Physics and Instrumentation | 3 |
| RS 318 | Pathology for Imaging Sciences | 3 |
| RS 414 | Research: Analysis and Critique (DMS 414) | 3 |
| Credits | | 18 |

J-term

| | | |
|------------------------------|--|----------|
| University Curriculum course | | 3 |
| Credits | | 3 |

Spring Semester

| | | |
|------------------------------|--|------------|
| RS 202 | Human Anatomy Imaging II | 1 |
| RS 215 | Radiation Safety and Protection | 3 |
| RS 255 | Radiologic Clinical Education IV | 3 |
| RS 290 & 290L | Advanced Radiographic Procedures IV and Laboratory Practicum | 4 |
| RS 499 | Capstone (DMS 499) | 3 |
| University Curriculum course | | 3 |
| Credits | | 17 |
| Total Credits | | 121 |

¹ This course is a prerequisite for the required BIO 211 and BIO 211L course in the next semester.

Student Learning Outcomes

Upon completion of the BS in Radiologic Sciences program, students will demonstrate the following competencies:

Goal 1: Students will be clinically competent.

1. Clinically Knowledgeable: Apply skills and knowledge from foundational courses.
2. Procedurally Knowledgeable: Demonstrate growth in procedural knowledge from all Radiologic Sciences coursework.

Goal 2: Students will demonstrate effective communication skills.

1. Effective Communication: Execute interpersonal communication with patients.
2. Oral Proficiency: Demonstrate their ability to present clear and creative ideas related to a case study.

Goal 3: Students will demonstrate critical thinking.

1. Critical Decision-Making: Demonstrate their ability to perform non-routine and routine procedures.
2. Image Analysis: Evaluate images for quality and diagnostic value.

Goal 4: Students will grow and develop as highly qualified professionals.

1. Professional Ethics: Understand and apply ethical decision-making.
2. Professional Behaviors: Conduct themselves professionally.
3. Professional Research: Create a culminating capstone project.

Goal 5: The program will continuously monitor and strive to sustain its effectiveness.

1. Completion Rate: Students who start the program will complete the program.
2. Employer Satisfaction: Employers will be satisfied with the education of the graduates of the program.
3. Graduate Satisfaction: Graduates will be satisfied with the education received from the program.
4. Employment Rate: Graduates of the program will become employed within six months of completion of the program.

Mission Statement

The Quinnipiac University Radiologic Sciences program supports the mission statements of both Quinnipiac University and the School of Health Sciences and their commitment to excellence in education.

The mission of the Radiologic Sciences program at Quinnipiac University is to develop students' technical and interpersonal communication skills through a logical sequence of didactic, laboratory and clinical experiences. The program offers multiple clinical assignments to provide maximum exposure to diversified radiographic procedures and imaging protocols. In addition, the program prepares graduates to be competent in the art and science of radiography. Graduates of the Radiologic Sciences program will meet the needs of the community as competent and highly qualified professionals. The program prepares students for career entry and the ability to pursue advanced study.

Candidates applying for admission to the Radiologic Sciences program are required to have at least three years of high school college-preparatory mathematics and one year of biology. One year of anatomy and physiology and one year of general chemistry or physics is recommended. In addition, the scores of the SAT or the ACT are an important consideration. Related healthcare experience is highly desirable. Prospective candidates also must satisfy general Quinnipiac University Admission Requirements (<https://catalog.qu.edu/general-information/admissions/>).

Policies

In addition to the general policies of Quinnipiac University, such as due process and academic honesty, the following apply to students enrolled in the Radiologic Sciences program.

Progression in the Program

Students in the Radiologic Sciences (RS) program must meet both GPA and final course grade requirements to remain in good standing. A cumulative GPA of 3.00 and a programmatic GPA of 3.00 must be maintained each semester. In addition, students must earn a final grade of B- or higher in all RS courses. Grades below a B- are not acceptable.

The calculation of the programmatic GPA and enforcement of final course grade requirements begin with RS 100 and apply to all RS coursework thereafter.

Any student who fails to meet the GPA requirements or earns a grade below B- in an RS course will be referred to the Diagnostic Imaging Department's Progression and Retention Committee (P&RC) for review.

Sanctions may be imposed, up to and including dismissal from the program.

Transportation

Multiple clinical education centers are used throughout the professional component of the program. Students are responsible for their own transportation to and from these sites and any associated costs (e.g., parking).

Summer Study

All students are required to complete one clinical rotation experience during the summer semester, second year (RS 253). This clinical practicum is performed during summer sessions I and II and may be performed only at a clinical affiliation currently approved by the Joint Review Committee on Education in Radiologic Technology (JRCERT) for the program.

Technical Standards

The Radiologic Sciences program is a rigorous program that places specific demands on its students. As stated in the mission of the program, graduates of the program will meet the needs of the community as efficient and highly qualified professionals.

The technical qualifications set forth by the American Registry of Radiologic Technologists (ARRT) combined with the program's views provide a guide to the essential qualities necessary to pursue a career in radiologic sciences, as well as meet the expectations of the program's accrediting body (Joint Review Committee on Education of Radiologic Technologists, JRCERT).

Students in the program will be required to verify their understanding and compliance with the technical standards, or their belief that with reasonable accommodations these standards can be met, through reading, signing, and returning the form to the program director.

Additional Program Costs

As a clinical education program, the Radiologic Sciences major requires some expenses that go beyond standard university tuition and fees:

1. **Clinical/Fieldwork Education Travel** (e.g., gas, parking, public transportation) – Students will have clinical rotation experiences that take them off campus. For these rotations, the student will typically be traveling two to three times per week. Clinic begins in the sophomore year of study and students are responsible for providing their own transportation. **Cost – variable.**
2. **Immunizations** – Consistent with the School of Health Sciences policy, all students must have a full battery of immunizations and in some cases titer affirmation of immunity for common diseases including but not limited to: MMR, HepB, varicella, polio, TDAP, TB and influenza. These must be documented prior to the start of clinical experiences during the sophomore year and must be maintained through the undergraduate education. **Cost – variable (please check with your insurance carrier).**
3. **Background Check** – All students must undergo an initial background check prior to the start of clinical/fieldwork experience.
 - a. Initial background check cost is \$63 for all domestic addresses for the past 7 years or \$158 for students who have resided in New York state in the last 7 years due to NY state surcharge.

- b. Some clinical fieldwork sites may require an additional yearly background recheck. **Cost – \$32 per annual recheck.**
- 4. **Drug Screening** – All students must undergo a drug screening prior to the start of the main component of the program in the sophomore year. **Cost – approximately \$42.25.**
- 5. **Liability Insurance** – All students have liability insurance coverage through the university, free of charge, while performing required clinical activity. Students may choose to purchase additional coverage at their own expense.
- 6. **EXXAT and APPROVE** – Students enrolled in professional programs must enroll in EXXAT and APPROVE.
 - a. EXXAT is the clinical tracking and assessment program used by the School of Health Sciences. **Cost – one-time payment of \$150 per student for the current major (students are responsible for this cost).**
 - b. APPROVE is the program within EXXAT that tracks all student health and safety records, provides documentation to prospective clinical sites, and provides notification of impending expiration dates. **Cost – \$35 for first year; \$10 per year thereafter.**

Please note – All fees are subject to change.

The Radiologic Sciences program at Quinnipiac University is accredited by:

The Joint Review Committee on Education in Radiologic Technology
(JRCERT)
20 N. Wacker Drive, Suite 2850
Chicago, IL 60606-3182

Phone: 312-704-5300

Email: mail@jrcert.org

The program received an eight-year accreditation (the maximum available) in Spring 2020. The re-accreditation process will commence in 2027 with submission of the Self-Study report to the JRCERT. General program accreditation information and the current accreditation award letter can be found on their Quinnipiac site (<https://www.jrcert.org/programs/quinnipiac-university/>).