ACCELERATED DUAL-DEGREE BS/MHS IN ADVANCED MEDICAL IMAGING AND LEADERSHIP (3+1)

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The Accelerated Dual-Degree program consists of two distinct degrees: the Bachelor of Science in Radiologic Sciences and the Master of Health Science in Advanced Medical Imaging and Leadership.

The Bachelor of Science in Radiologic Sciences is a three-year accelerated degree. The mission of the Radiologic Sciences program at Quinnipiac University is to develop students’ technical and interpersonal communication skills through a logical, organized and rigorous 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 competent in the art and science of radiography.

Graduates of the program will meet the needs of the community as efficient and highly qualified professionals. The program prepares students, upon successful completion of all didactic and clinical work, to move on to advanced study in the Advanced Medical Imaging and Leadership program.

The Advanced Medical Imaging and Leadership program is an interprofessional program. The integrated curriculum features core business discipline courses, guided health management courses, and advanced imaging modalities in three distinct pathways: magnetic resonance imaging (MRI), computed tomography (CT) and women’s imaging (WI). Graduates of the MHS-AMIL program will be prepared to become advanced imaging professionals possessing the foundational education necessary for future entry-level leadership and managerial roles within their respective radiology healthcare organizations.

Accelerated Dual-Degree BS/MHS in Advanced Medical Imaging and Leadership Curriculum

The designated Advanced Medical Imaging (3+1) 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>First Year</strong></td>
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<tr>
<td><strong>Fall Semester</strong></td>
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</tr>
<tr>
<td>EN 101</td>
<td>Introduction to Academic Reading and Writing 1</td>
<td>3</td>
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<tr>
<td>FYS 101</td>
<td>First-Year Seminar</td>
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<tr>
<td>MA 275</td>
<td>Biostatistics 1</td>
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<td><strong>Spring Semester</strong></td>
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<tr>
<td>BIO 103</td>
<td>Concepts in Human Biology</td>
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<tr>
<td>EN 102</td>
<td>Academic Writing and Research 1</td>
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<tr>
<td>RS 101</td>
<td>Introduction to Diagnostic Imaging</td>
<td>3</td>
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<tr>
<td>HSC 202</td>
<td>Medical Terminology</td>
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<tr>
<td>UC Elective</td>
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<td><strong>Credits</strong></td>
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<td><strong>Summer Semester</strong></td>
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<td></td>
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<tr>
<td>UC Elective (Online or On Campus)</td>
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<td><strong>Second Year</strong></td>
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<tr>
<td>BIO 211 &amp; 211L</td>
<td>Human Anatomy and Physiology I and Human Anatomy and Physiology Lab I</td>
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<tr>
<td>RS 241 &amp; 241L</td>
<td>Radiographic Image Production and Evaluation and Radiographic Image Production and Evaluation Lab I</td>
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<tr>
<td>RS 212 &amp; 212L</td>
<td>Radiographic Procedures I and Laboratory Practicum I</td>
<td>4</td>
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<tr>
<td>UC Elective</td>
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<tr>
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<tr>
<td><strong>Credits</strong></td>
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<td>18</td>
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<tr>
<td><strong>Spring Semester</strong></td>
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<tr>
<td>BIO 212 &amp; 212L</td>
<td>Human Anatomy and Physiology II and Human Anatomy and Physiology II Lab</td>
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<tr>
<td>RS 222 &amp; 222L</td>
<td>Radiographic Procedures II and Laboratory Practicum II</td>
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<tr>
<td>RS 242 &amp; 242L</td>
<td>Radiographic Image Production and Evaluation II and Radiological Processing and Exposure Lab</td>
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<td>RS 250</td>
<td>Radiologic Clinical Education I</td>
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<tr>
<td>RS 297 &amp; 297L</td>
<td>Methods of Patient Care and Methods of Patient Care Lab</td>
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<tr>
<td><strong>Credits</strong></td>
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<tr>
<td><strong>Summer Semester</strong></td>
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<tr>
<td>RS 253</td>
<td>Radiologic Clinical Education II</td>
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<td><strong>Fall Semester</strong></td>
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<tr>
<td>RS 201</td>
<td>Human Anatomy Imaging I</td>
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<tr>
<td>RS 260</td>
<td>Radiographic Physics and Instrumentation</td>
<td>3</td>
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</table>
Accelerated Dual-Degree BS/MHS in Advanced Medical Imaging and Leadership (3+1)

RS 232  Radiographic Procedures III and Laboratory Practicum III  5
RS 254  Radiologic Clinical Education IV  3
RS 318  Pathology for Imaging Sciences  3
RS 414  Research: Analysis and Critique (DMS 414)  3

Credits  18

J-term
UC Elective  3

Spring Semester
RS 202  Human Anatomy Imaging II  1
RS 215  Radiation Safety and Protection  3
RS 255  Radiologic Clinical Education  3
RS 290  Advanced Radiographic Procedures IV & 290L and Laboratory Practicum  4
RS 499  Capstone (DMS 499)  3
UC Elective  3

Credits  17

Total Credits  121

Initial placement in the English and mathematics courses is determined by placement examination and an evaluation of high school units presented. The minimum mathematics requirement is MA 275 or its equivalent.

Associated lab is required for both Chemistry and Physics. CHE 110 or PHY 110 with lab are acceptable to fulfill the requirement. Students may take in the fall or spring of their first year.

If taking Chemistry or Physics in the spring, this UC elective should be taken in the fall semester.

Computed Tomography

Course  Title  Credits

Fourth Year

Summer Semester
AMI 523  Advanced Sectional Anatomy  3
AMI 538  Introduction to CT Scanning & 538L and Computed Tomography Lab I  4
MBA 601  Foundations for Decision Making  1
OL 601  Foundations of Organizational Behavior and Leadership (Students interested in earning MBA should take MBA 625 instead)  3
OL 610 or OL 650  Crucial Conversations as Leaders (Students interested in earning MBA should take MBA 615 instead of OL 610 or OL 650) or Leading Organizational Change  3

Credits  14

Fall Semester
AMI 516  Advanced MRI Principles and Imaging & 516L and Magnetic Resonance Imaging Principles II - Lab Practicum  4
AMI 517  Magnetic Resonance Imaging Clinical I  2
AMI 570  Capstone I  1
HM 600  Foundations of Health Care Management  3
HM 621  Quality Management in Health Care Facilities  3

Credits  13

Spring Semester
AMI 518  Magnetic Resonance Imaging Clinical II  2
AMI 560  Pathology for CT and MRI Technologists  3
AMI 575  Capstone II  3
HM 660  Human Resource Management in Health Care Administration  3
HM 664  Financial Management in Health Care Organizations  3

Credits  14

Total Credits  41

Magnetic Resonance Imaging

Course  Title  Credits

Fourth Year

Summer Semester
AMI 523  Advanced Sectional Anatomy  3
AMI 515  Introduction to Magnetic Resonance Imaging & 515L and Magnetic Resonance Imaging Principles I - Lab Practicum  4
MBA 601  Foundations for Decision Making  1
OL 601  Foundations of Organizational Behavior and Leadership (Students interested in earning MBA should take MBA 625 instead)  3
OL 610 or OL 650  Crucial Conversations as Leaders (Students interested in earning MBA should take MBA 615 instead of OL 610 or OL 650) or Leading Organizational Change  3

Credits  14

Fall Semester
AMI 516  Advanced MRI Principles and Imaging & 516L and Magnetic Resonance Imaging Principles II - Lab Practicum  4
AMI 517  Magnetic Resonance Imaging Clinical I  2
AMI 570  Capstone I  1
HM 600  Foundations of Health Care Management  3
HM 621  Quality Management in Health Care Facilities  3

Credits  13

Spring Semester
AMI 518  Magnetic Resonance Imaging Clinical II  2
AMI 560  Pathology for CT and MRI Technologists  3
AMI 575  Capstone II  3
HM 660  Human Resource Management in Health Care Administration  3
HM 664  Financial Management in Health Care Organizations  3

Credits  14

Total Credits  41

Women's Imaging

Course  Title  Credits

Fourth Year

Summer Semester
AMI 534  Bone Densitometry  1
AMI 540  Principles of Mammography  3
### AMI 541L Mammography and Bone Densitometry Lab 2
MBA 601 Foundations for Decision Making 1
OL 601 Foundations of Organizational Behavior and Leadership (Students interested in earning MBA should take MBA 625 instead)

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>OL 610</td>
<td>Crucial Conversations as Leaders (Students interested in earning MBA should take MBA 615 instead of OL 610 or OL 650)</td>
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<tr>
<td>or OL 650</td>
<td>Leading Organizational Change</td>
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**Credits**: 13

### Fall Semester

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<th>Course Title</th>
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<tr>
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<td>Mammography and Bone Densitometry Clinical I</td>
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<tr>
<td>AMI 545</td>
<td>Women's Health and Imaging</td>
<td>3</td>
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<tr>
<td>AMI 570</td>
<td>Capstone I</td>
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<tr>
<td>HM 600</td>
<td>Foundations of Health Care Management</td>
<td>3</td>
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<tr>
<td>HM 621</td>
<td>Quality Management in Health Care Facilities</td>
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**Credits**: 12

### Spring Semester

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>AMI 531</td>
<td>Mammography and Bone Densitometry Clinical II</td>
<td>2</td>
</tr>
<tr>
<td>AMI 575</td>
<td>Capstone II</td>
<td>3</td>
</tr>
<tr>
<td>HM 660</td>
<td>Human Resource Management in Health Care Administration</td>
<td>3</td>
</tr>
<tr>
<td>HM 664</td>
<td>Financial Management in Health Care Organizations</td>
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**Credits**: 11

**Total Credits**: 36

### Student Learning Outcomes

Upon completion of the Bachelor of Science in Radiologic Sciences component of the AMIL (3+1) 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 RS coursework.

**Goal 2**: The 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 in a formal manner.

**Goal 3**: Students will demonstrate critical thinking.
1. **Critical Decision-Making**: Demonstrate their ability to navigate typical and atypical clinical scenarios while performing non-routine and routine procedures.
2. **Image Analysis**: Evaluate images for quality and diagnostic value.

**Goal 4**: Students will grow and develop as professionals.
1. **Professionalism**: Conduct themselves professionally and understand and apply ethical decision-making.
2. **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.

Upon completion of the Advanced Medical Imaging and Leadership 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 AMIL coursework.

**Goal 2**: The 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 in a formal manner.

**Goal 3**: Students will demonstrate critical thinking.
1. **Critical Decision-Making**: Demonstrate their ability to navigate typical and atypical clinical scenarios while performing non-routine and routine procedures.
2. **Image Analysis**: Evaluate images for quality and diagnostic value.

**Goal 4**: Students will grow and develop as professionals.
1. **Professionalism**: Conduct themselves professionally and understand and apply ethical decision-making.
2. **Professional Research**: Create a culminating capstone project.

Student Learning Outcomes for both components of the AMIL (3+1) program are designed to mirror one another. The AMIL (3+1) program represents a natural progression from undergraduate to graduate studies. Students in the graduate component of the program will expand upon the outcomes achieved in the BSRS component and will continue growing as Registered Radiologic Technologists and healthcare workers.

Quinnipiac University’s Accelerated Dual-Degree Radiologic Sciences and Advanced Medical Imaging and Leadership (3+1) program provides prospective students with the opportunity to obtain both bachelor’s and master’s degrees as well as certification in two radiographic modalities.
within a four-year time frame, a rarity among health science programs. Obtaining a master’s degree in health science studies is a great benefit to students as the curriculum not only advances their knowledge within the radiologic field and specialty, but also delves into health policy and health administration, and prepares these students to take on leadership roles within healthcare departments.

Quinnipiac University’s Accelerated Dual-Degree BS/MHS in Advanced Medical Imaging and Leadership (3+1) 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 program is to develop each student’s technical, professional and interpersonal communication skills through a logical and organized sequence of didactic, laboratory and clinical experiences. The program offers multiple clinical assignments to provide maximum exposure to advanced imaging modalities and associated protocols. In addition, the program prepares skilled graduates competent in the art and science of radiography, fluoroscopy and interventional procedures. Graduates of the Advanced Medical Imaging and Leadership program meet the needs of the community for highly qualified professionals, and the program prepares students for career entry and advanced study.

The Accelerated Dual-Degree BS in Radiologic Sciences/MHS in Advanced Imaging and Leadership (3+1) program does not have a separate application process. Incoming first-year students admitted to the School of Health Sciences Radiologic Sciences BS who meet the dual-degree program criteria will be invited to enter the program. To be considered for this program, students must be ranked in the top 20 percent of their high school class, and must have a total SAT score (critical reading and math) of 1200 or higher, or an ACT composite score of 25 or higher.

Admission to the university is competitive, and applicants are expected to present a strong college prep program in high school. Prospective first-year students are strongly encouraged to file an application as early in the senior year as possible, and arrange to have first-quarter grades sent in time for acceptance. Appointments with the Senior Year Program Director are recommended. Prospective first-year students are strongly encouraged to file their application as early in the senior year as possible, and arrange to have first-quarter grades sent in time for acceptance. Appointments with the Senior Year Program Director are recommended.

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** (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 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.

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.

Accreditation information for the BSRS component of the AMIL 3+1 program included below per the JRCERT accreditation guidelines.

The Radiologic Sciences program at Quinnipiac University is accredited by:

The Joint Review Committee on Education in Radiologic Technology (jrcert.org)  
20 N. Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
Phone: 312-704-5300

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.