Radiologic Sciences Requirements

These professionals function as first assistants to the physician in medical practice, utilizing radiant energy, ionizing radiation (X-Ray), other forms of electro-magnetic energy, and sound waves for the imaging, diagnosis, and treatment of disease. Each distinct specialty option has its own educational criteria, accreditation and clinical training requirements.

The program prepares technologists for entry-level positions and also prepares the technologist who wishes to gain additional expertise. The radiologic technology curriculum and all program options are designed to meet the guidelines for accreditation and/or recognition by the American Registry of Radiologic Technologists, the Joint Review Committee on Education in Radiation Therapy Technology and the American Registry of Diagnostic Medical Sonography.

The Radiologic Sciences program offers a Bachelor of Science Degree with options in: diagnostic medical sonography, magnetic resonance imaging/computed tomography, radiation therapy technology, and radiology education/management.

To be considered for enrollment into the Radiologic Sciences program, prospective students must first obtain admission to the University. To be approved for entry into the major and professional sequences, applicants must submit additional application materials. This program admits a limited number of students based on specific selection criteria. Students may be selected for admission to the Radiologic Sciences program either as freshmen or sophomores. Freshmen will be evaluated on the basis of ACT scores and high school grade point average. Sophomores will be evaluated on the number of hours of college credit, college grade point average as calculated by SIUC, college mathematics and science grades and the grade in anatomy. Anatomy, math and science courses must be completed prior to the following fall semester.

Accreditation guidelines place limits on the enrollment in this program. Students begin the professional sequence each fall only. This degree program requires the successful completion of clinical internships. In accordance with Federal and State guidelines, the clinical sites will require proof of the following: vaccination for measles, mumps, rubella, tetanus, TB, varicella (chicken pox), Hepatitis B, and influenza; current CPR card; and proof of completion of HIPAA and blood-borne pathogens training. Affiliation sites will also require students to undergo a criminal background check and drug screening.

Associate in Applied Science Degree, College of Applied Sciences and Arts

The A.A.S. degree in the Radiologic Sciences curriculum is designed to prepare students to become registered radiologic technologists (medical radiographers). Completion of the program provides graduates with the educational requirements necessary to take the national certification examination administered by the American Registry of Radiologic Technologists. Students in the radiation therapy technology, and magnetic resonance imaging/computed tomography, and radiology education, and radiology management specialization will receive the A.A.S. degree upon successful completion of their junior year.

All students graduating from the Radiography program must pass their ARRT exam and be certified by the ARRT by the start date of their specialization or the student will not be allowed to enter their specialization in Radiation Therapy or MRI/CT.

The following general education and radiologic sciences courses totaling 70 credit hours are required to receive the A.A.S. degree in Radiologic Sciences.
### Bachelor of Science Degree, College of Applied Sciences and Arts

The Bachelor of Science degree in Radiologic Sciences is a 120-semester hour program consisting of forty-one semester hours of University Core Curriculum requirements, and 79 semester hours of combined radiography and professional option courses. All coursework required for the A.A.S. degree in Radiologic Sciences counts toward this degree.

#### Diagnostic Medical Sonography (Ultrasound) Option

Sonography is a diagnostic medical procedure that uses high frequency sound waves (ultrasound) to produce dynamic visual images of organs, tissues, or blood flow inside the body. This type of procedure is called a sonogram. There are several areas of specialization in the field of Sonography. While most Sonographers work in hospitals, many will also find employment in clinics, private practice physician offices, public health facilities, laboratories, and other medical settings performing examinations in their areas of specialization. Career advancement opportunities exist in education, administration, research, and in commercial sales and education/application specialists.

The sonography option is a direct entry program for students with the anticipated graduation year of 2018 or later as students are not required to go through the Diagnostic Radiography portion of the program. If an AAS Radiology graduate wants to pursue Sonography education, they will have to complete the third and fourth year Sonography coursework as well as all general education courses listed in the curricular guide.

<table>
<thead>
<tr>
<th>Degree Requirements</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>University Core Curriculum Requirement</td>
<td>37</td>
</tr>
<tr>
<td>To include: UCOL 101, MATH 101 or MATH 108, PHYS 101</td>
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<td>Degree Requirements</td>
<td>Credit Hours</td>
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<td>Sonography Requirements</td>
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<tr>
<td>Additional Requirements</td>
<td>17</td>
</tr>
<tr>
<td>RAD 122</td>
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<td>AH 105</td>
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<td>AH 241</td>
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<td>CMST 301I</td>
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<tr>
<td>HED 334</td>
<td>3</td>
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<td>Total</td>
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</tbody>
</table>

### Magnetic Resonance Imaging/Computed Tomography Option

This option is designed to prepare technologists in the advanced areas of magnetic resonance imaging (MRI) and computed tomography (CT). The MRI and CT components will emphasize physics, technology, instrumentation, sectional anatomy, and pathology. Technologists employed in these capacities will be supervised by a board certified radiologist, but will be afforded a greater amount of responsibility and independence in the performance of their duties.

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<tr>
<td>University Core Curriculum Requirement</td>
<td>39</td>
</tr>
<tr>
<td>To include: UCOL 101U, AH 241 or Anatomy Equivalent AH 105</td>
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<tr>
<td>Professional Core Requirements</td>
<td>48</td>
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</table>
Degree Requirements | Credit Hours
--- | ---
Including: RAD 102, RAD 112, RAD 112L, RAD 122, RAD 202, RAD 212, RAD 222, RAD 232, RAD 232L, RAD 312, RAD 322, RAD 332, RAD 342, RAD 352 |  
MRI and CT | 31
Including: RAD 364, RAD 374, RAD 384, RAD 394, RAD 404, RAD 414, RAD 424, RAD 434 | 
Total | 120

**Radiation Therapy Technology Option**

Radiation therapy technologists assist radiation oncologists in all aspects of the administration of radiation therapy treatment; their primary responsibility consists of exposing specific areas of the patient’s body to prescribed doses of ionizing radiation. Radiation therapy technologists also provide appropriate patient care; this includes exercising judgment when administering treatment and adhering to the principle of radiation protection for the patient, self and others.

Degree Requirements | Credit Hours
--- | ---
University Core Curriculum Requirement | 39
To include: UCOL 101U, AH 241 or Anatomy Equivalent AH 105 | 2
Radiation Therapy Technology Core Requirements | 48
Including: RAD 102, RAD 112, RAD 112L, RAD 122, RAD 202, RAD 212, RAD 222, RAD 232, RAD 232L, RAD 312, RAD 322, RAD 332, RAD 342, RAD 352 | 
Radiation Therapy Technology | 31
Including: RAD 360, RAD 370, RAD 380, RAD 390, RAD 400, RAD 410, RAD 420, RAD 430, RAD 440 | 
Total | 120

**Radiology Education/Management Option**

This option is designed to allow entry level radiographers the opportunity to study educational theories, philosophies, styles, and techniques. Additionally, the student will be introduced to management concepts as they relate to medical imaging departments. The primary focus of the radiology education and
management option is to allow students who wish to enter either radiography education or radiography management the opportunity to learn and develop the skills necessary for success in these two environments. Students will be required to complete an internship in their chosen area of emphasis (if state licensure is feasible) or an undergraduate research project related to radiology education or management.

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<td>Radiology Education/Management Core Requirements</td>
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<tr>
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<td>RAD 475 or RAD 476</td>
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<td>120</td>
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Last updated: 08/31/2017

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Catalog Year Statement:
Students starting their collegiate training during the period of time covered by this catalog (see bottom of this page) are subject to the curricular requirements as specified herein. The requirements herein will extend for a seven calendar-year period from the date of entry for baccalaureate programs and three years for associate programs. Should the University change the course requirements contained herein subsequently, students are assured that necessary adjustments will be made so that no additional time is required of them.