**RADIOGRAPHY**

The Radiography Program at the University of Nebraska Medical Center is offered as a primary certification modality within the Department of Medical Imaging & Therapeutic Sciences at UNMC. The 21 month program consists of lecture, demonstrations, laboratory, and clinical instruction. A comprehensive knowledge base and clinical competencies are achieved through a plan of study that focuses on increasing proficiency under the supervision of quality faculty and staff. Campus locations include Columbus, Kearney, and Omaha.

Upon completion of 26 specified college prerequisites (https://www.unmc.edu/alliedhealth/education/rt/admission/) and the 21 month professional program, students are awarded a Bachelor Degree in Medical Imaging & Therapeutic Sciences and are eligible to take the national examination for certification in Radiography by the American Registry of Radiologic Technologists (https://www.arrt.org/). Students having completed the Radiography program may also apply for an additional year of study in a secondary certification Medical Imaging & Therapeutic Sciences Program.

**Degree Offered**

Bachelor of Science in Medical Imaging & Therapeutic Sciences

**Length of Program**

The program is 21 months in length, starting in August, and ending in May. The didactic component is composed of approximately 94 semester hours and complies with the American Society of Radiologic Technologists (https://www.asrt.org/) curriculum. There are optional courses available to the student in specialized areas of interest.

The Radiography Program consists of lecture, demonstrations, laboratory, and supervised clinical experiences. The students gain clinical experience by rotating through one or more of the following facilities:

- Nebraska Medicine
- Children's Hospital
- Family Medical Specialties, Holdrege, NE
- Family Practice of Grand Island
- Think Whole Person Healthcare, Omaha, NE
- Veterans Affairs Medical Center
- CHI Health - Saint Francis Medical Center, Grand Island, NE
- Columbus Community Hospital, Columbus, NE
- CHI Health Good Samaritan Hospital, Kearney, NE
- Kearney Regional Medical Center

The amount of time dedicated to the clinical environment depends upon the student's year in the program and semester of enrollment. Part of the clinical experience will involve evening/weekend rotation requirements. The evening/weekend rotations will not comprise more than 25% of the student's total clinical clock hours.

List of technical standards (http://www.unmc.edu/alliedhealth/education/rt/about/rt-tech-standards.pdf) required by the radiography profession.

**Degree Requirements**

Students must successfully complete each course within the radiography curriculum in order to be considered for the Bachelor of Science degree in Medical Imaging & Therapeutic Sciences. A minimum total of 120 semester credit hours are required for the Bachelor of Science degree in Medical Imaging & Therapeutic Sciences (minimum of 26 semester credit hours of specific prerequisite coursework and approximately 94 semester credit hours in the Radiography Program).

All required didactic and clinical courses must be completed with a minimum letter grade of C- or better to meet requirements for graduation from the program.

**Certification & Licensure**

**Certification**

The American Registry of Radiologic Technologists (ARRT) is the credentialing organization that recognizes individuals qualified in the use of ionizing and non-ionizing radiation to promote high standards of patient care in diagnostic medical imaging, interventional procedures and therapeutic treatment. The ARRT tests and certifies technologists and administers continuing education and ethics requirements for their annual registration.

**ARRT Primary Disciplines of Certification**

The ARRT provides certification in these primary disciplines of radiologic technology: Radiography, Nuclear Medicine Technology, Sonography, Magnetic Resonance Imaging and Radiation Therapy.

Upon completion of the Radiography program at UNMC, graduates are eligible to apply for the national examination for certification offered by the ARRT.

For more information about the ARRT and requirements for certification and registration please contact:

The American Registry of Radiologic Technologists (http://www.arrt.org/)
1255 Northland Drive
St. Paul, MN 55120-1155
Phone: 651.687.0048

**Licensure**

Depending on the state in which you decide to practice, you may also be required to become licensed as a radiologic technologist. Each state has its own laws in regard to licensure. Individual states hold the authority to administer the license and grant individuals permission to practice radiologic technology within their state.

More information on licensure in Nebraska (http://dhhs.ne.gov/licensure/Pages/Medical-Radiography.aspx)

**About the Profession**

Radiography is the use of ionizing radiation to produce detailed diagnostic images of the human body. The quality of the radiographs is dependent upon the judgment, knowledge, and skill of the radiographer who assists the Radiologist (a physician specially trained in radiology to diagnose disease and injury) by operating complex, highly technical equipment safely and efficiently.

The Radiographer must have a solid foundation in anatomy, physics, biology, and the professional and technical disciplines related to radiologic science. Imaging specialties found within the radiography profession include: Mammography, Surgical Radiography, Computed Tomography (CT), Cardiovascular Interventional Technology (CVIT), Bone Densitometry, and Quality Management.
Career Outlook
Radiologic technologists are the largest group of allied health professionals in the country.

More than 300 million radiologic procedures are performed every year in the United States, and seven out of 10 Americans undergo some type of medical imaging exam or radiation therapy treatment annually.

As the technology involved with diagnostic imaging, radiation therapy, telemedicine, and teleradiology progresses, so will the need for highly educated, credentialed technologists with independent-thinking and critical-judgment skills. Career opportunities available to certified radiographers include clinical patient care, administration, education, research, radiation dosimetry/physics, clinical therapy treatment, commercial sales, equipment applications, and veterinary medicine.

The American Society of Radiologic Technologists recognizes the baccalaureate degree as the professional level of radiologic science education.

The career outlook for Radiologic Technologists (aka Radiographers) is good. The US Department of Labor projects that the employment of Radiologic Technologists is expected to increase by 9% from 2014-2024. While salaries vary depending upon shift differential, on-call pay, and years of experience, the US Department of Labor estimated the median salary in 2016 to be $58,960 per year.

Admissions
Radiography
Admission Requirements

Enrollment in each program is limited and competitive. Evaluation of the qualifications of each applicant and the final selections for admission are made by the admissions committee of each program, which comprises program faculty and administration.

Cumulative GPA required for admissions consideration: 2.50

Admission to the Radiography Program requires the applicant to successfully complete the following prior to matriculation:

University / College Required Prerequisites
Successful completion of a minimum of [26 semester hours] at an accredited college or university. The required semester hours must include the following:

- Language/Social Sciences (12 semester hours)
  - Require English Composition /Literature
- Natural Science (8 semester hours)
  - Biology (4 semester hours)
  - Physics (4 semester hours)
  - Mathematics (6 semester hours)
- Language/Social Sciences (12 semester hours)
  - Require English Composition /Literature

1 Advanced Placement: A maximum of 6 College Level Examination Program (CLEP) or Advanced Placement (AP) semester hours will be accepted for transfer. CLEP semester hours in math and science will not be accepted & no more than 3 CLEP or AP hours of English Composition will be accepted.

Exceptions to this policy due to COVID-19 (https://www.unmc.edu/alliedhealth/_documents/cahp-interim-admissions-policy-grades-of-pass.pdf)

All science courses must be basic science courses for science majors.

Cumulative GPA required for admissions consideration: 2.50

All required didactic and clinical courses must be completed with a minimum letter grade of C- or better to meet requirements for graduation from the program.

College prerequisites, course requirements, and program requirements are subject to change.

Clinical Environment:

- Accepted students are guaranteed timely and appropriate clinical placement.
- Accepted students will be required to complete a background check and substance abuse testing prior to matriculation into the program. Depending on clinical site, additional requirements may need to be met or updated.
- During the program, students will be assigned to periodic evening/weekend rotations which will not comprise more than 25% of the total clinical clock hours.

Campus Location:
Accepted students will be assigned to a campus location. Once a campus location is assigned, the student will be expected to remain at their assigned campus location for the duration of the program. Students are asked for their campus location preference during the application process; however, there is no guarantee as to what campus location will be offered. Campus location options: Omaha, Columbus, or Kearney. See the Campus Locations page for more information and housing options.

See the Campus Locations page for more information and housing options.

MITS Early Acceptance Pipeline:
The MITS Early Acceptance Pipeline was created for those students who know they have an interest in one of our post-baccalaureate certificate (PBC) programs in the Medical Imaging & Therapeutic Sciences department. Those programs are:

- Cardiovascular Interventional Technology (CVIT)
- Diagnostic Medical Sonography (DMS)
- Magnetic Resonance Imaging (MRI)
- Radiation Therapy (RTT)

Students who want to apply to the above programs must first complete a radiography program, and so the Early Acceptance Pipeline allows applicants to apply to the Radiography Program and one PBC program at the same time. Applicants who choose to apply through the Early Acceptance Pipeline will complete a Radiography Program application during the normal admissions cycle, but will also indicate on the application an interest in one of the PBC programs. At that time, applicants will be asked to submit a personal statement about their
interest in Radiography, as well as a personal statement about their interest in the PBC program of their choice.

Applicants accepted to the Radiography Program but not accepted to the PBC Program through the Early Acceptance Pipeline will be allowed to apply for early acceptance to the PBC Program of their choice again during their first year of the Radiography Program. Again, applicants may only apply for early acceptance to one of the PBC Programs, and will be required to submit a personal statement about their interest in the PBC program.

UNMC Radiography students who were not accepted as part of the Early Acceptance Pipeline are welcome to reapply to any of the PBC Programs during their final year of the Radiography Program.

Questions regarding the Early Acceptance Pipeline can be addressed to CAHP Academic & Student Affairs at cahpadmissions@unmc.edu or via phone at 402-559-6673.

How to Apply
For information on how to apply to the Radiography Program, visit the "How to Apply" website. For information on application deadlines and interview dates, visit the "Application Deadline" website.

Curriculum

First Year

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<tr>
<th>Fall</th>
<th>CAHP 462</th>
<th>HUMAN ANATOMY &amp; PHYSIOLOGY I</th>
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<td>MITS 312R</td>
<td>RADIOGRAPHIC TECHNOLOGY I</td>
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<td>APPLIED RADIOGRAPHIC TECHNOLOGY I</td>
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<td>MITS 390R</td>
<td>DIGITAL IMAGING PRINCIPLES</td>
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<td>INTRODUCTION TO RADIATION PHYSICS</td>
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Spring

| CAHP 310 | MEDICAL TERMINOLOGY | 2 |
| CAHP 426 | HEALTH CARE ETHICS AND CRITICAL THINKING | 3 |
| CAHP 463 | HUMAN ANATOMY & PHYSIOLOGY II | 4 |
| MITS 308R | INTRODUCTION TO MEDICAL IMAGING AND THERAPEUTIC SCIENCES | 2 |
| MITS 313R | RADIOGRAPHIC TECH II | 4 |
| MITS 316R | APPLIED RADIOGRAPHIC TECHNOLOGY II | 5 |
| **Credit Hours** | **20** |

Summer

| MITS 323R | APPLIED RADIOGRAPHIC TECHNOLOGY III | 7 |
| CAHP 415 | COMMUNICATION AND CULTURE IN HEALTHCARE | 3 |
| MITS 461R | CT PHYSICS (online) | 1 |
| MITS 413R | RADIOLOGIC CONTRAST AGENTS | 2 |
| MITS 460R | CT PROTOCOLS AND CROSS SECTIONAL ANATOMY | 2 |
| **Credit Hours** | **15** |

Second Year

| Fall | CAHP 420 | FOUNDATIONS OF INFORMATION TECHNOLOGY IN HEALTHCARE | 2 |
| CAHP 430 | SCANNING HEALTH CARE ENVIRONMENT | 3 |
| MITS 305R | SPECIAL PROJECTS I (online) | 1 |
| MITS 350R | RADIOGRAPHIC PATHOLOGY (online) | 2 |
| MITS 404R | APPLIED RADIOGRAPHIC TECHNOLOGY IV | 6 |
| MITS 414R | RADIATION PHYSICS | 1 |
| NRS 311 | PATHOPHYSIOLOGIC ALTERATIONS IN HEALTH I | 2 |
| NRS 317 | PHARMACOLOGY FOR HEALTHCARE PROFESSIONALS I | 2 |
| **Credit Hours** | **19** |

Spring

| CAHP 423 | PRINCIPALS OF CRITICAL INQUIRY | 2 |
| CAHP 431 | MANAGEMENT IN HEALTH CARE | 3 |
| MITS 306R | SPECIAL PROJECTS II (online) | 1 |
| MITS 355R | RADIOGRAPHIC PATHOLOGY II (online) | 2 |
| MITS 407R | RADIOGRAPHIC IMAGING SEMINARS (online) | 2 |
| MITS 408R | APPLIED RADIOGRAPHIC TECHNOLOGY V | 6 |
| NRS 331 | PATHOPHYSIOLOGIC ALTERATIONS IN HEALTH II | 2 |
| NRS 332 | PHARMACOLOGY FOR HEALTHCARE PROFESSIONALS II | 2 |
| **Credit Hours** | **20** |

Total Credit Hours 94