Radiologic technologists, also known as radiographers, typically do the following:

- Adjust and maintain imaging equipment
- Precisely follow orders from physicians on what areas of the body to image
- Prepare patients for procedures, including taking a medical history and answering questions about the procedure
- Protect the patient by shielding exposed areas that do not need to be imaged
- Position the patient and the equipment in the location needed to get the correct image
- Operate the computerized equipment to take the images
- Work with radiologists reading the images to determine whether other images need to be taken

Healthcare professionals use many types of diagnostic equipment to diagnose patients. Radiologic technologists specialize in diagnostic radiology, computed tomography (CT), magnetic resonance imaging (MRI), ultrasound mammography, diagnostic medical sonography, cardiovascular sonography, nuclear medicine and several others. (Occup. Outlook Handbook)

The following two year pre-radiologic technology program is based on the requirements for admission to the Department of Medical Imaging and Therapeutic Sciences at the University of Nebraska Medical Center (UNMC) and other affiliated professional training programs (see below). Admission to the professional portion of the program is competitive and is not automatically assured by successful completion of pre-radiologic technology courses.

A. Requirements:

Take all of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 225</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 226</td>
<td>Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 325</td>
<td>Medical Terminology</td>
<td>1</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Introduction to Academic Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102GS</td>
<td>Academic Writing and Research</td>
<td>3</td>
</tr>
<tr>
<td>MATH 102GS**</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 205GS</td>
<td>General Physics</td>
<td>5</td>
</tr>
<tr>
<td>PSY 203GS</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 100GS</td>
<td>Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>STAT 241GS</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Students with sufficient preparation may enter the mathematics program at MATH 123GS.

Take one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 145GS</td>
<td>Introductory Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 160GS</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

B. Electives

Take 3 hours of elective courses in both the humanities and social sciences:

Appropriate options include courses in anthropology, art history, economics, history, philosophy, political science, psychology and sociology.

Additional Electives & Requirements:

For Option 1 below: Select 15 hours of elective courses for UNMC requirements.

For Option 2 below: Students pursuing a degree from UNK in Applied Health Sciences must complete the remainder of the General Studies requirements (18 credit hours) and additional elective hours to reach a minimum total of 70 credit hours as part of the pre-radiography program. While in professional clinical training, students must take HSCI 475 – Internship in Health Sciences: Radiography, 5 credit hours, every semester of clinical training for a total of 25 credit hours.

C. Professional Training in Radiography

Upon completion of the required coursework, students will apply for a position in a two-year professional training program. Students have two options for professional training.

**Option 1:** Students may apply to the Division of Medical Imaging and Therapeutic Sciences at the University of Nebraska Medical Center. If accepted, they will receive a Bachelor’s Degree from UNMC following completion of the program. Accepted students will be assigned to a UNMC clinical training site. The options include Kearney, Omaha, and Columbus locations. For more information, please contact UNMC: Program Director: Tammy Webster, R.T. (R) (M)

MPA Phone: 402 559-3846 Email: tammy.webster@unmc.edu Website: http://www.unmc.edu/alliedhealth/rt.htm

**Option 2:** Students may also apply to an affiliated hospital-based clinical training program. The University of Nebraska at Kearney is currently affiliated with five schools of radiography. These include Mary Lanning Hospital in Hastings; CHI Health in Omaha; Regional West Medical Center in Scottsbluff; Sanford Medical Center in Sioux Falls; SD; and Avera Sacred Heart Hospital in Yankton, SD. Students interested in the Bachelor's Degree in Applied Health Sciences may be awarded 25 hours of credit upon completion of the clinical training program. Students attending an affiliated hospital program are required to register for HSCI 475 every semester during clinical training as stated above.

Academic Guidelines

While no minimum GPA is required for most professional training programs in radiography, students who are successful in gaining admission to a professional training program typically have at least a 3.0 cumulative GPA. However, a higher GPA is preferred and will result in the student being a more competitive applicant. Each required course must be passed with a grade of “C” or better. A grade of “C-” will not be accepted by some programs.

Students searching for electives outside their major requirements should consider courses from the following areas: biology, chemistry, mathematics, sociology, psychology, business administration, healthcare management, and healthcare economics. See your advisor for suggestions. Students should be aware of prerequisites on all courses and plan their coursework accordingly.

Non-Academic Guidelines

There is no magic formula for acceptance into professional training. Admission is based on GPA, test scores if required, shadowing and medical experiences, community involvement and volunteerism, leadership qualities, the interview, an essay, and letters of recommendation. Radiography students are required to shadow a minimum of 20 hours in order to apply to some professional programs. The hours must be documented and students may use the Shadowing Documentation located on the Health Sciences website. Health Sciences offers opportunities to meet these non-academic guidelines through the Shadowing Program, the Health Science Club, and volunteer experiences. Students should plan to be involved in these types of activities and experiences throughout their undergraduate career. Other important non-academic factors include good moral character, excellent interpersonal skills, a deep commitment to healthcare, evidence of leadership potential and service to others.

**Notes:** BIOL 226 is not required by UNMC, however, it highly recommended and counts as elective credit. Students should check with the specific schools of radiologic technology to which they intend to apply to ensure that any other requirements are fulfilled, especially UNMC. Please see advisor for additional information.

Additional options include Kearney, Omaha, and Columbus locations. For more information, please contact UNMC: Program Director: Tammy Webster, R.T. (R) (M)

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**Notes:** BIOL 226 is not required by UNMC, however, it highly recommended and counts as elective credit. Students should check with the specific schools of radiologic technology to which they intend to apply to ensure that any other requirements are fulfilled, especially UNMC. Please see advisor for additional information.
The Application Process
The applications to the professional training programs are available directly from each program. The applications can be accessed directly through the program’s website. The applications should be completed during the fall semester of the student’s last year of coursework at UNK. Most applications are due early in the spring semester and the application/interview process is typically complete by April.

Entrance Examination Requirement
A few radiography programs require an entrance examination, such as the HOBEt test. These tests are given by the programs themselves early in the spring semester. Students should check the websites of the programs they are applying to in order to determine if a test is required.

Letters of Evaluation/Recommendation
Letters of evaluation will be required of applicants. Letters from a faculty member, health care practitioner, academic advisor, or employer would be appropriate. Information about the non-academic character of a student would be most useful as academic information is already in the application.

Interviews
Most programs screen applicants with some form of personal interview. The format of the interview may vary depending on the programs to which the student is applying.

Criminal Background Checks
Prerequisite for enrollment into any health science professional program or professional training is consent for an external background check. This check includes, but is not limited to, past criminal offenses and registry information. If there is evidence of arrest for a crime(s), conviction for a crime(s), presence on an abuse registry, or other information which reasonably suggests that patient safety might be compromised, the student will be asked to provide additional information.

Citizenship/International Students
Professional schools in the health sciences vary as to whether they accept non-U.S. citizens. Some programs that do accept non-citizens require a substantial financial commitment up front. Since not all programs accept non-citizens and since the financial commitment of those that do may be substantial, students should thoroughly research and carefully consider such a decision and discuss it with their pre-health advisors early in their undergraduate years.

Websites
Rad Tech – Occupational Outlook: www.bls.gov/ooh/Healthcare/Radiologic-technologists.htm#tab-1
UNK Health Sciences: www.unk.edu/healthsciences

Suggested Sequence of Key Courses

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
</table>
| Year 1 | CHEM 145GS or 160GS
        | MATH 102GS
        | Portal General Studies Course 188GS
        | ENG 101 (if needed)
        | PSY 203GS
        | 16 credit hours                                                      | PHYS 205 GS
        |                                                                 | STAT 241GS
        |                                                                 | ENG 102GS
        |                                                                 | SPCH 100GS
        |                                                                 | Humanities GS
        |                                                                 | 17 credit hours                                                      |
| Year 2 | BIOL 225
        | BIOL 325
        | Radiography Elective
        | Humanities GS
        | Social Science GS
        | Aesthetic GS
        | 17 credit hours                                                      | BIOL 226
        |                                                                 | Capstone General Studies Course 388GS
        |                                                                 | MIS 182GS
        |                                                                 | Radiography Elective/GS Elective
        |                                                                 | Democracy GS
        |                                                                 | 18 credit hours                                                      |
| Year 3 | Professional training at UNMC or in affiliated hospital-based radiography program
        | HSCI 430 – Students must register for this course every semester of professional training if in a hospital program. |
| Year 4 | Professional training at UNMC or in affiliated hospital-based radiography program
        | HSCI 430 if applicable                                               | Professional training at UNMC or in affiliated hospital-based radiography program
        | HSCI 430 if applicable                                               | HSCI 430 if applicable                                               |

- Students should be aware of prerequisites for courses and plan accordingly.
- A MATH ACT score of 20 is a pre-requisite for College Algebra (MATH 102).
- A MATH ACT score of 22 or prior completion of College Algebra (MATH 102) or higher is a pre-requisite for CHEM 160.
- A minimum MATH ACT score of 20 or prior completion of College Algebra (MATH 102) (Grade of B+ or better) or higher is required for entry into PHYS 205.
- Completion of one semester of chemistry is required for entry into BIOL 225.

Professional Programs at Affiliated Hospitals

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Phone</th>
<th>Program Director</th>
<th>Applications</th>
</tr>
</thead>
</table>
| Mary Lanning Healthcare - School of Radiologic Technology
  Hastings, NE | 402-461-5170 | Cristi Engel
cengel@marylanning.org | Accepted
  Oct 1 – Jan 15 |
| CHI Health - School of Radiologic Technology
  Omaha, NE | 402-398-5527 | Robert Hughes
robert.hughes@alegent.org | Feb 1 Deadline |
| Regional West Medical Center - School of Radiologic Technology
  Scottsbluff, NE | 308-630-1155 | Stephanie Cannon
stephanie.cannon@rwhs.org | Feb 1 Deadline |
| Sanford Medical Center - School of Radiologic Technology
  Sioux Falls, SD | 605-333-7445 | Candace McNamara
candace.mcnamara@sandfordhealth.org | Jan 31 Deadline |
| Avera Sacred Heart Hospital - School of Radiologic Technology
  Yankton, SD | 605-668-8158 | Annessa VanOsdel
anessa.vanosdel@avera.org | Jan 15 Deadline |
Notes On Attending a Hospital-Based Professional Radiography Training Program

• **Required Course: HSCI 430:** If attending one of the affiliated hospital-based professional programs and planning to receive a degree from UNK, students are required to register each semester for a one credit hour course titled “Special Topics in Radiography” (HSCI 430). This course is required in order to track students and allow students to receive financial aid from UNK if necessary. The course is a credit/no credit course and students are given credit each semester as long as they are passing their professional program. In order to graduate, students are required to register for the course 5 times – fall and spring semesters of the first year of radiography school, the summer between the first and second year, and the fall and spring semesters of the second year. Students will be reminded each semester to register for HSCI 430. **If all requirements are complete, students should apply for summer graduation by June of their final year of the professional to receive the Bachelor of Science in Applied Health Sciences Degree from UNK.** All Pre-Rad Tech courses and General Studies courses must be complete to receive the degree.

• **Cost of Attendance:** The cost of attending an affiliated radiography program varies by program and can range anywhere from approximately $3,000 - $12,000 including the program’s tuition, books, fees and uniforms. Housing costs are not included. The UNK tuition for HSCI 430 has been waived, but students will be charged the fees associated with one credit hour.

• **Mode of Delivery:** A professional program in radiography includes both didactic coursework and hands-on training in a clinical setting. The didactic coursework will occur in a classroom setting, however, some of the content may be delivered electronically or via distance education. The hands-on training will occur in person in the clinical setting.

**Post-Primary Specialization Opportunities**
The University of Nebraska Medical Center in Omaha offers specialization certificates in the following areas: CT, MRI, Vascular Intervention Technology, Radiation Therapy, Diagnostic Medical Sonography, and Nuclear Medicine. Most of these programs are approximately an additional one year in length. For more information, please check the UNMC website at [http://www.unmc.edu/alliedhealth/rste.htm](http://www.unmc.edu/alliedhealth/rste.htm).

**Students pursuing a program of study in pre-radiologic technology are expected to choose a major so that they can be working towards a bachelor’s degree concurrently with the pre-radiologic technology program. This requires a major/minor combination or a comprehensive major, as well as completion of the UNK general studies requirements and other degree requirements as set forth in the college catalog. This is encouraged to ensure that students have an alternative plan if not accepted to professional training.**