

# Radiography

Program Code 105261

## Associate Degree - Two Years Plus Two Summers

Offered at the Green Bay campus. For information: (920) 498-5444.

[Admissions Reference Form](#)

Toll-free: (800) 422-NWTC, ext. 5444.

### Program Description

Graduates perform routine radiographic imaging of the body. They work closely with physicians and may assist in the performance of invasive procedures. After completion of the program, many students may choose to acquire advanced certificates in Mammography, Bone Densitometry, Computed Tomography (CT) and/or Magnetic Resonance Imaging (MRI).

### Program Outcomes

- Carry out the production and evaluation of radiographic images.
- Practice radiation safety principles.
- Adhere to quality management processes in radiography.
- Provide quality patient care.
- Apply computer skills in the radiographic clinical setting.
- Model professional and ethical behavior consistent with the A.R.R.T. Code of Ethics.
- Apply critical thinking and problem solving skills in the practice of diagnostic radiography.

### Clinical Practicum

Students will be required to purchase a uniform, pay for liability insurance, provide their own transportation to assigned sites, and cover any other expenses related to clinical experiences. Students may be expected to travel distances, participate in p.m. clinicals, or weekend rotations.

NWTC is required to comply with the Wisconsin Caregiver Law (1997 WISCONSIN ACT 27.) The completion of a caregiver background check includes the review of criminal records for convictions of serious crimes or a history of improper behavior. Students accepted into health programs must complete a background information form disclosing any acts, crimes, or convictions prior to program entry. The information provided in the background information form must be truthful and match any findings on the criminal record check. Students with a criminal history may be denied access to clinical placement at the discretion of the clinical site. Consequently, should a student have a history of convictions of serious crimes or a history of improper behaviors, NWTC cannot guarantee clinical placement, or guarantee graduation within typical program timing.

### Accreditation

The Radiography program is accredited by the North Central Association of Colleges and Schools, 30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602.

### Board/Certification Examinations

Graduates are qualified to take the American Registry in Radiography Technologist (ARRT) Examination.

### Employment Potential

A graduate of the Radiography program can choose to work in a variety of health care settings including clinics, hospitals and private practice physician offices.

Career advancement opportunities exist in education, administration, and in commercial companies as education/application specialists, sales representatives and technical advisors.

### Requirements for Program Application

- Completed application.
- High school transcript or equivalent (such as an HSED or GED® Transcript).
- Academic Skills Assessment, ACT assessment taken within the last three years.
- One year of Algebra and Chemistry with a grade of "C" or better. If high school courses, "C" in two semesters of each.

Candidates submitting applications to the Radiography program must also provide:

- Three references from professional or academic experiences submitted on NWTC forms.
- An essay (no more than 1,000 words) outlining a description of why they are interested in the profession, their current knowledge and experience in the profession, the specific skills and duties of a radiographer, and why they are a good candidate for the program.

The Radiography program follows a competitive enrollment process whereby candidate applications are reviewed by a Selection Committee. Candidates are ranked in the following categories: Assessment, Math/Science, Essays, References. The highest ranking candidates will be offered a place on the program wait list. Remaining candidates will have the opportunity to re-apply.

### Requirements for Program Entry From Wait List

- Attend mandatory spring program orientation.
- Complete physical examination within three months before entering program and maintain current immunization information.
- Complete an American Heart Association Health Care Provider CPR course *prior* to program entry. Students are required to maintain a current CPR card on a one-year renewal cycle to comply with affiliating agency requirements.
- Submit Caregiver Background Check paperwork.
- Complete mandatory four hour job shadow.

### Curriculum

The Radiography program is a two-year, two-summer, six-semester program. Upon graduation, a student will have completed 68 credits.

Summer semester core classes are scheduled to begin mid-May and end mid-July.

#### First Semester

| Catalog No.           | Description               | Credits   |
|-----------------------|---------------------------|-----------|
| * 10-526-149          | RT-Anatomy & Procedures 1 | 5         |
| * 10-526-158          | RT-Intro to Radiography   | 2         |
| * 10-526-159          | RT-Imaging 1              | 3         |
| * 10-526-168          | RT-Clinical Practice 1    | 2         |
| * 10-806-177          | Gen Anatomy & Physiology  | 4         |
| <b>Semester Total</b> |                           | <b>16</b> |

#### Second Semester

|                       |                           |           |
|-----------------------|---------------------------|-----------|
| * 10-526-170          | RT-Imaging 2              | 3         |
| * 10-526-191          | RT-Anatomy & Procedures 2 | 5         |
| * 10-526-192          | RT-Clinical Practice 2    | 4         |
| 10-801-195            | Written Communication     | 3         |
| 10-809-198            | Intro to Psychology       | 3         |
| <b>Semester Total</b> |                           | <b>18</b> |

#### Summer Semester

|                       |                               |          |
|-----------------------|-------------------------------|----------|
| * 10-526-193          | RT-Clinical Practice 3        | 2        |
| 10-809-166            | Intro to Ethics: Theory & App | 3        |
| <b>Semester Total</b> |                               | <b>5</b> |

#### Third Semester

|                       |                              |           |
|-----------------------|------------------------------|-----------|
| * 10-526-194          | RT-Imaging Equip & Computers | 4         |
| * 10-526-195          | RT-Image Analysis            | 2         |
| * 10-526-196          | RT-Modalities                | 1         |
| * 10-526-199          | RT-Clinical Practice 4       | 5         |
| 10-801-196            | Oral/Interpersonal Comm      | 3         |
| <b>Semester Total</b> |                              | <b>15</b> |

#### Fourth Semester

|                       |                                |           |
|-----------------------|--------------------------------|-----------|
| * 10-526-189          | RT-Radiographic Pathology      | 1         |
| * 10-526-190          | RT-Clinical Practice 5         | 2         |
| * 10-526-197          | RT-Radiation Protect & Biology | 3         |
| 10-809-172            | Race Ethnic & Diversity        | 3         |
| 10-809-196            | Intro to Sociology             | 3         |
| <b>Semester Total</b> |                                | <b>12</b> |

#### Summer Semester

|                       |                        |           |
|-----------------------|------------------------|-----------|
| * 10-526-198          | RT-Clinical Practice 6 | 2         |
| <b>Semester Total</b> |                        | <b>2</b>  |
| <b>Total Credits</b>  |                        | <b>68</b> |

\* No final grade lower than "C" is acceptable in any of the courses marked with an asterisk. A student who withdraws or receives a grade lower than a "C" in a program course may apply for reentry into the program. Consideration for reentry will be at the discretion of the re-entry team and will be dependent on clinical availability.

### Suggested Skills for Success

Students are expected to have entry-level computer skills. It is recommended that students complete basic computer skills coursework if deficient in this area.

This program is fully eligible for financial aid.

## Please Note

- Some courses have prerequisites (listed at the end of each course description, if applicable) that need to be taken prior to enrolling in those courses.
- Many courses are offered via our Flexible Learning Options (online, accelerated, ITV, video, weekend, and self-paced) and may be taken in any order as long as prerequisites are met. To find out which program courses are offered through Flexible Learning Options, go to [www.nwtc.edu](http://www.nwtc.edu) or consult a counselor, (920) 498-5444.
- Descriptions of courses not found on this page can be found in the back of this catalog.

## Course Descriptions

*These courses provide an opportunity for students to develop the knowledge, skills, and understanding required for employment in this field.*

**10-526-149 RT-RADIOGRAPHIC ANATOMY & PROCEDURES 1** ...prepares radiography students to perform routine radiologic procedures on various parts of the body including the upper and lower extremities, hip and pelvis. (Prerequisite: Enrolled in Radiography program; Corequisite: 10-806-177, General Anatomy & Physiology)

**10-526-158 RT-INTRODUCTION TO RADIOGRAPHY** ...introduces students to the role of radiography in health care. Students apply legal and ethical considerations to patient care and pharmacology in radiologic sciences. (Prerequisite: Enrolled in Radiography program)

**10-526-159 RT-RADIOGRAPHIC IMAGING 1** ...introduces radiography students to the process of creating radiographic images. Students determine the factors that affect image quality. Students apply OSHA standards for health and safety in the darkroom. (Prerequisite: Enrolled in Radiography program)

**10-526-168 RT-RADIOGRAPHY CLINICAL PRACTICE 1** ...this beginning level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. An emphasis of the course is development of communication and critical thinking skills appropriate to the clinical setting. (Prerequisite: Enrolled in Radiography program)

**10-526-170 RT-RADIOGRAPHIC IMAGING 2** ...prepares radiography students to apply advanced radiographic principles to the production of radiographic images. Students analyze exposure factor considerations, differentiate between film and exposure latitude, and beam restricting devices. (Prerequisites: 10-526-159, RT-Radiographic Imaging 1; 10-526-158, RT-Intro to Radiography; 10-526-149, RT-Anatomy & Procedures 1)

**10-526-189 RT-RADIOGRAPHIC PATHOLOGY** ...prepares radiography students to determine the basic radiographic manifestations of pathological conditions. Students classify trauma related to site, complications, and prognosis and locate the radiographic appearance of pathologies. (Prerequisite: 10526195, RT-Image Analysis)

**10-526-190 RT-RADIOGRAPHY CLINICAL PRACTICE 5** ...this fifth level clinical course prepares radiography students to perform radiologic procedures on patients with some supervision. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. (Prerequisite: 10-526-199, RT-Clinical Practice 4)

**10-526-191 RT-RADIOGRAPHIC ANATOMY & PROCEDURES 2** ...prepares radiography students to perform routine radiologic procedures on various parts of the body including the skull and spine. (Prerequisites: 10-526-149, RT-Radiographic Anatomy & Procedures 1; 10-526-158, RT-Intro to Radiography; 10-526-159, RT-Anatomy & Procedures 1; 10-806-177, General Anatomy & Physiology)

**10-526-192 RT-RADIOGRAPHY CLINICAL PRACTICE 2** ...this second level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting. (Prerequisites: 10-526-168, RT-Radiography Clinical Practice 1; 10-526-149, RT-Anatomy & Procedures 1; 10-526-158, RT-Intro to Radiography; 10-526-159, RT-Imaging 1; Corequisite: 10-526-191, RT-Anatomy & Procedures 2)

**10-526-193 RT-RADIOGRAPHY CLINICAL PRACTICE 3** ...this third level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. An emphasis of the course is the demonstration of communication and critical thinking skills appropriate to the clinical setting. (Prerequisites: 10-526-192, RT-Radiography Clinical Practice 2; 10-526-191, RT-Anatomy & Procedures 2)

**10-526-194 RT-IMAGING EQUIPMENT & COMPUTERS** ...introduces radiography students to the principles and application of x-ray technology. Students analyze how x-rays are produced and determine the corrective actions necessary for common equipment malfunctions. (Prerequisites: 10-526-170, RT-Radiographic Imaging 2; 10-526-158, RT-Intro to Radiography)

**10-526-195 RT-RADIOGRAPHIC IMAGE ANALYSIS** ...prepares radiography students to analyze radiographic images for quality. Students apply quality control tests to determine the causes of image problems including equipment malfunctions and procedural errors. (Prerequisites: 10-526-170, RT-Radiographic Imaging 2; 10-526-191, RT-Anatomy & Procedures 2; Corequisite: 10-526-194, RT-Imaging Equipment & Computers)

**10-526-196 RT-MODALITIES** ...introduces radiography students to other types of imaging including ultrasound, MRI, mammography, and bone density scans. Students analyze the role of various imaging technologies in health care. (Prerequisite: 10-526-191, RT Radiographic Anatomy & Procedures 2)

**10-526-197 RT-RADIATION PROTECTION & BIOLOGY** ...prepares radiography students to protect themselves/others from radiation exposure. Students examine the characteristics of radiation and how radiation affects cell biology. Students apply standards/guidelines for radiation exposure. (Prerequisite: 10-526-195, RT-Image Analysis)

**10-526-198 RT-RADIOGRAPHY CLINICAL PRACTICE 6** ...this final clinical course requires students to integrate and apply all knowledge learned in previous courses to the production of high quality radiographs in the clinical setting. (Prerequisite: 10-526-190, RT-Clinical Practice 5)

**10-526-199 RT-RADIOGRAPHY CLINICAL PRACTICE 4** ...this fourth level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. (Prerequisite: 10-526-193, RT Radiography Clinical Practice 3; Corequisite: 10-526-195, RT-Image Analysis)