



Radiography

Program No: 10-526-1

Associate Degree in Applied Science

Degree Completion Time: Six Terms

In general, an academic year consists of two terms; however, degree completion time may vary based on student scheduling needs and class availability.

2012-2013

Catalog No.	Class Title	Credit(s)
10806177	General Anatomy and Physiology	4.00
Term 1		
10526149	Radiographic Procedures 1	5.00
10526158	Introduction to Radiography	3.00
10526159	Radiographic Imaging 1	3.00
10526168	Radiography Clinical 1	2.00
	Total	13.00
Term 2 Summer		
10526192	Radiography Clinical 2	3.00
10804107	College Mathematics	3.00
	Total	6.00
Term 3		
10526170	Radiographic Imaging 2	3.00
10526191	Radiographic Procedures 2	5.00
10526193	Radiography Clinical 3	3.00
10801196	Oral/Interpersonal Communication	3.00
	Total	14.00
Term 4		
10526194	Imaging Equipment Operation	3.00
10526196	Modalities	3.00
10526199	Radiography Clinical 4	3.00
10809198	Psychology, Introduction to	3.00
10809172	Race, Ethnic & Diversity	3.00
	Total	15.00
Term 5 Summer		
10526190	Radiography Clinical 5	2.00
10801195	Written Communication	3.00
	Total	5.00
Term 6		
10526174	ARRT Certification Seminar	2.00
10526189	Radiographic Pathology	1.00
10526195	Radiographic Quality Analysis	2.00
10526197	Radiation Protection & Biology	3.00
10526198	Radiography Clinical 6	2.00
10809196	Sociology, Introduction to	3.00
	Total	13.00
	Program Total	70.00

Prerequisites: HS or College Level Algebra, Chemistry; Medical Terminology, and Computer Proficiency Testout

Note: Program start dates vary; check with your counselor for details.

Curriculum and program acceptance requirements are subject to change.

About Shared Programs

LTC offers its Radiography program in cooperation with Nicolet Technical College. As a radiography student, you'll:

- Attend live or interactive TV classes.
- Take general studies classes at your local technical college.

About the Career

Diagnosing certain medical conditions or injuries often requires physicians to go beyond a routine physical examination; they need to see inside the body, so an x-ray of the affected area is ordered. Radiographers work with patients to acquire the necessary diagnostic images. If you're detail-oriented, caring, interested in anatomy and physiology, able to work under pressure, and inclined to work with technology and people, a career as a radiographer may be a satisfying choice for you.

Careers

Upon successful completion of the program, graduates are eligible to take the entry-level certification exam administered by the American Registry of Radiologic Technologists (ARRT) and are employed as radiographers in:

- Clinics
- Diagnostic Imaging Centers
- Radiology and Imaging Departments of Hospitals

Admissions Steps

- Application
- Application Fee
- Entrance Assessment Scores
- Transcripts
- Algebra Requirement
- Background Check
- Chemistry Requirement
- Clinical Observation
- Computer Proficiency Assessment
- Program Advising Session
- Health/TB/Tetanus Form
- Medical Terminology Requirement
- Functional Abilities Statement of Understanding Form

Program Outcomes

You'll learn to:

- Carry out the production and evaluation of radiographic images.
- Apply computer skills in the radiographic clinical setting.
- Practice radiation safety principles.
- Provide quality patient care.
- 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.

Approximate Costs

- \$126 per credit (resident)
- \$182 per credit (out-of-state resident)
- Other fees vary by program (books, supplies, materials, tools, uniforms, health-related exams, etc.)

Graduation Requirements

Students must attain a "C" or better in all required program classes and maintain a grade point average of 2.0 or above to be eligible for graduation.

Special Note

- The clinical portion of the program starts in January and has required evening, weekend, and summer hours.
- 10806177 General Anatomy and Physiology must be completed prior to beginning the occupational portion of the program.
- Postsecondary general education math course required for completion of the program by the American Society of Radiologic Technologists.
- CNA competency must be met within 12 months of starting the program.

Accreditation

LTC's Radiography program is accredited by The Joint Review Committee on Education in Radiologic Technology, 20 North Wacker Drive, Suite 2850, Chicago, Illinois 60606-3182. Phone: 1.312.704.5300.

Functional Abilities

Functional abilities are the basic duties that a student must be able to perform with or without reasonable accommodations. At the postsecondary level, students must meet these requirements, and they cannot be modified.

Entrance Assessment Scores

Accuplacer	ACT
Arithmetic - 83	Mathematics - 18
Reading - 79	Reading - 18
Sentence Skills - 86	English - 18

Transfer agreements are available with the following institutions:

Capella University
Concordia University
Franklin University
Herzing University
Lakeland College
Marian College

Ottawa University
Silver Lake College
University of Phoenix
Upper Iowa University
UW-Green Bay
UW-Oshkosh

UW-Stout

IMPORTANT: For more information on these agreements, visit gotoltc.edu/transfer.

10526149 Radiographic Procedures 1

...prepares radiography students to perform routine radiologic procedures on various parts of the body including the upper body, hip, pelvis and ankle. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired result.

CONDITION: 105261 Radiography Admissions Requirements Met **PREREQUISITES:** 10806177 Gen Anatomy & Physiology or 10806195 Anat & Phys I and 10806196 Anat & Phys II

10526158 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 the radiologic sciences.

CONDITION: 105261 Radiography Admissions Requirements Met

10526159 Radiographic Imaging 1

...introduces radiography students to the process of creating radiographic images. Students determine the factors that affect image quality including contrast, density, and distortion. Students apply OSHA standards for health and safety in the darkroom.

CONDITION: 105261 Radiography Admissions Requirements Met

10526168 Radiography Clinical 1

...is a beginning level clinical course that prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting.

CONDITION: 105261 Radiography Admissions Requirements Met and **COREQUISITE:** 10526149 Radio Proc 1, 10526158 Intro to Radio, 10526159 Radio Imaging 1, and **PREREQUISITE:** 10806177 Gen A&P or 10806196 A&P II

10526170 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 use beam-restricting devices.

PREREQUISITES: 10526159 Radiographic Imaging 1

10526174 ARRT Certification Seminar

...provides preparation for the national certifying examination prepared by the American Registry of Radiologic Technologists. Emphasis is placed on the weak areas of the individual students. Simulated registry examinations are utilized. Successful completion of the Radiography program requirements is required to enroll in this course.

CONDITION: 105261 Radiography Admissions Requirements Met

10526189 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.

CONDITION: 105261 Radiography Admissions Requirements Met

10526190 Radiography Clinical 5

...is the fifth level clinical course that prepares radiography students to perform radiologic procedures on patients with some supervision. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.

COREQUISITE: 10526199 Radiographic Clinical 4

10526191 Radiographic Procedures 2

...prepares radiography students to perform routine radiologic procedures on various parts of the body including the skull and spine. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired result.

PREREQUISITE: 10526149 Radiographic Procedures 1

10526192 Radiography Clinical 2

...is the second level clinical course that prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting.

COREQUISITE: 10526168 Radiography Clinical 1

10526193 Radiography Clinical 3

...is the third level clinical course which prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the demonstration of communication and critical thinking skills appropriate to the clinical setting.

PREREQUISITE: 10526192 Radiographic Clinical 2

10526194 Imaging Equipment Operation

...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. **CONDITION:** 105261 Radiography Admissions Requirements Met and

COREQUISITE: 10526199 Radiography Clinical 4

10526195 Radiographic Quality 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.

CONDITION: 105261 Radiography Admissions Requirements Met and **PREREQUISITE:** 10526194 Imaging Equipment Operation

10526196 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: 10526191 Radiographic Procedures 2 and **CONDITION:** 105261 Radiography Admissions Requirements Met

10526197 Radiation Protection & Biology

...prepares radiography students to protect themselves and others from exposure to radioactivity. Students examine the characteristics of radiation and how radiation affects cell biology. Students apply standards and guidelines for radiation exposure.

PREREQUISITE: 10526194 Imaging Equipment Operation and **CONDITION:** 105261 Radiography Admissions Requirements Met

10526198 Radiography Clinical 6

...is the final clinical course which requires students to integrate and apply all knowledge learned in previous courses to the production of high quality radiographs in the clinical setting. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.

PREREQUISITE: 10526190 Radiography Clinical 5

10526199 Radiography Clinical 4

...is the fourth level clinical course that prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.

PREREQUISITE: 10526193 Radiographic Clinical 3

10801195 Written Communication

...teaches the writing process, which includes prewriting, drafting, revising, and editing. Through a variety of writing assignments, the student will analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Keyboarding skills are required for this course. It also develops critical reading and thinking skills through the analysis of a variety of written documents.

PREREQUISITE: 10831103 Intro to College Wrtg or **CONDITION:** Written Comm Prepared Learner (Accuplacer Wrtg min score of 86 or Equivalent) and **COREQUISITE:** 10838105 Intro Rdg & Study Skills or **CONDITION:** Reading Accuplacer min score of 74 or equivalent

10801196 Oral/Interpersonal Comm

...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects.

COREQUISITE: 10838105 Intro Reading and Study Skills or **CONDITION:** Reading accuplcer minimum score of 74 or equivalent

10804107 College Mathematics

...is designed to review and develop fundamental concepts of mathematics pertinent to the areas of: 1) arithmetic and algebra; 2) geometry and trigonometry; and 3) probability and statistics. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators. **PREREQUISITE:** Accuplacer Math minimum score of 79 or Equivalent or 10834109 Pre-Algebra and **COREQUISITE:** 10838105 Intro Reading and Study Skills or **CONDITION:** Reading accuplcer minimum score of 74 or equivalent

10806177 General Anatomy and Physiology

...examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision-making and professional communication with colleagues and patients.

PREREQUISITE: 10806174 General Chemistry or 10806134 General Chemistry or High School Chemistry Equivalent

10809172 Race, Ethnic and Diversity Studies

...is a course that draws from several disciplines to reaffirm the basic American values of justice and equality by teaching a basic vocabulary, a history of immigration and conquest, principles of transcultural communication, legal liability and value of aesthetic production to increase the probability of respectful encounters among people. In addition to an analysis of majority/minority relations in a multicultural context, the topics of ageism, sexism, gender differences, sexual orientation, the disabled and the American Disability Act (ADA) are explored. Ethnic relations are studied in global and comparative perspectives.

COREQUISITE: 10838105 Intro Reading and Study Skills or Accuplacer Reading score of 74 or equivalent

10809196 Introduction to Sociology

...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues.

COREQUISITE: 10838105 Intro Reading and Study Skills or Accuplacer Reading score of 74 or equivalent

10809198 Intro to Psychology

...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. **COREQUISITE:** 10838105 Intro Reading and Study Skills or Accuplacer Reading score of 74 or equivalent