

# RADIOGRAPHY

# Program Number 10-526-1 Associate Degree in Applied Science • Six Terms

#### **ABOUT THE PROGRAM**

The program prepares individuals for a career as a radiographer in diagnostic imaging (x-ray). The radiographer produces images of the human body to aid healthcare providers in the diagnosis of injuries and diseases.

Graduates of the program are eligible to take the certification examination administered by the American Registry of Radiologic Technologists (ARRT) and may obtain employment in imaging departments to include hospitals, medical clinics, surgery centers, and private offices.

Program curriculum focuses on theory (textbook material) and application (hands-on clinical experience). The clinical experience will consist of rotations in a hospital and clinic setting where the students will work with practicing radiographers to learn the equipment and to become proficient in the field.

### **PROGRAM OUTCOMES**

- · Carryout the production and evaluation of radiographic images.
- · 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.

#### CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

LTC credits transfer to over 30 universities. For more information visit gotoltc.edu/future-students/transfer.

#### ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete a background check and pay for applicable processing fee.
- Complete the online Student Success Questionnaire.
- Complete Technical Standards form.
- Watch Radiography informational video prior to your Program Counseling Session.
- Schedule your 1st Time Program Counseling/Registration Session with your assigned program counselor to plan your first semester schedule, review your entire plan of study and discuss the results of the Student Success Questionnaire.
- \*Submit transcripts and test scores (optional, highly recommended): College transcripts, along with high school transcripts and test scores from within the last five years, used for course registration. Official transcripts needed for transferring college credit(s) and for financial aid purposes.

#### **FUTURE SEMESTER ENROLLMENT STEPS**

- Attend Career Experience session.
- Obtain or provide evidence of CNA course competencies within the past 5 years.
- Complete online Student Success Tutorial prior to registering for second semester.

#### **APPROXIMATE COSTS**

• \$146.20 per credit tuition (WI resident) plus \$8.77 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit gotoltc. edu/financial-aid/tuition-and-fees for details.

# FINANCIAL AID

This program is eligible for financial aid. Visit gotoltc.edu/Financial-Aid or talk with your Admissions Advisor about how to apply for aid.

## **SPECIAL NOTE**

- LTC offers its Radiography program in cooperation with Nicolet Technical College and Gateway Technical College. As a radiography student, you will attend live or interactive TV classes and take general studies classes at your local technical college.
- 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.
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.

#### CONTACT

LTC Admissions Advisor 920.693.1162 • Admissions@gotoltc.edu

Catalog No.	Class Title	Credit(s)
10806177 10806134 10501101	Prerequisite Courses General Anatomy and Physiology General Chemistry Medical Terminology	4 4 3 <b>11</b>
10526149 10526158 10526159 10526168	Term 1 Radiographic Procedures 1 Introduction to Radiography Radiographic Imaging Radiography Clinical 1	5 3 3 2 <b>13</b>
10526192	Term 2 (Summer) Radiography Clinical 2	3 <b>3</b>
10526230 10526191 10526193 10801196	Term 3 Advanced Radiographic Imaging Radiographic Procedures 2 Radiography Clinical 3 Oral/Interpersonal Communication	2 5 3 3 <b>13</b>
10526194 10526231 10526199 10526189 10809198	Term 4 Imaging Equipment Operation Imaging Modalities Radiography Clinical 4 Radiographic Pathology Introduction to Psychology	3 2 3 1 3 <b>12</b>
10526190 10801195	Term 5 (Summer) Radiography Clinical 5 Written Communication	2 3 <b>5</b>
10526174 10526195 10526197 10526198 10809196	Term 6 ARRT Certification Seminar Radiographic Imaging Analysis Radiation Protection and Biology Radiography Clinical 6 Introduction to Sociology	2 2 3 2 3 <b>12</b>

TOTAL 69

Lakeshore Technical College's Radiography program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your program counselor for details. The tuition and fees are approximate based on 2023-2024 rates and are subject to change prior to the start of the academic year. ADVANCED RADIOGRAPHIC IMAGING...explores factors that impact image acquisition, display, archiving and retrieval. Guidelines for selecting exposure factors and evaluating images within digital systems are discussed. Principles of digital system quality assurance and maintenance are presented. PREREQ: 10526159 Radiographic Imaging

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. PREREQUISITE: 10526190 Radiography Clinical 5 and CONDITION: 105261 Radiography admissions requirements met

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: 10806134 General Chemistry or Equivalent

GENERAL CHEMISTRY...covers the fundamentals of chemistry. Topics include the metric system, problem-solving, periodic relationships, chemical reactions, chemical equilibrium, properties of water; acids, bases, and salts; and gas laws. COREQUISITE: 78854773 Math Essentials for Chemistry and Reading placement assessment or equivalent

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. PREREQUISITE: 10526230 Advanced Radiographic Imaging and CONDITION: 105261 Radiography admissions requirements met

IMAGING MODALITIES...introduces radiography students to imaging modalities with an emphasis in computed tomography and cross-sectional anatomy. PREREQUISITES: 10526191 Radiographic Procedures 2 and CONDITION: 105261 Radiography admissions requirements met

INTRODUCTION 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: Reading placement assessment or equivalent

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. PREREQUISITE: 10501101 Medical Terminology and CONDITION: 105261 Radiography admissions requirements met

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: Reading placement assessment or equivalent

MEDICAL TERMINOLOGY...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of all body systems, as well as systemic and surgical terminology.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. COREQUISITE: Reading placement assessment or equivalent

RADIATION PROTECTION AND 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 Equip Operation and CONDITION: 105261 Radiography admissions requirements met

RADIOGRAPHIC IMAGING 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

RADIOGRAPHIC IMAGING...introduces radiography students to the process and components of imaging. Students determine the factors that affect image quality including contrast, receptor exposure, spatial resolution and distortion. PREREQUISITES: 10806174 General Chemistry or 10806143 General Chemistry and CONDITION: 105261 Radiography admission requirements met

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

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 and PREREQUISITES: 10806177 Gen Anatomy & Physiology or 10806177OL Gen Anatomy & Physiology

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

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 Radiographic Imaging, and PREREQUISITE: 10806177 Gen A&P or 10806196 A&P II

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

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

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

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

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

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. COREQUISITE: Writing placement assessment or equivalent AND Reading placement assessment or equivalent