

Radiography

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.

The program prepares individuals for a career as a radiographer in diagnostic imaging (x-ray). The radiographer produces images of the human body in order 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).

This is a shared program with Lakeshore Technical College. [Learn more here.](#)

Program Outline

TERM 1		
Course #	Course Title	Credits
1080617700	<p>Prerequisite: General Anatomy and Physiology</p> <p>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 and Reading placement assessment equivalent</p>	4.00
1080613400	<p>Prerequisite: General Chemistry</p> <p>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 enrollment requirements met or PREREQUISITES: Math and Reading enrollment requirements met</p>	4.00
1052615800	<p>Introduction to Radiography</p> <p>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</p>	3.00
105110100	<p>Prerequisite: Medical Terminology</p> <p>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.</p>	3.00
1052615900	<p>Radiographic Imaging</p> <p>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</p>	3.00
1052614900	<p>Radiographic Procedures 1</p> <p>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</p>	5.00
1052616800	Radiography Clinical Practice 1	2.00

Course #	Course Title	Credits
	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	
TERM 2		
Course #	Course Title	Credits
1052619200	Radiographic Clinical Practice 2	3.00
	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	
1052623000	Advanced Radiographic Imaging	2.00
	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	
TERM 3		
Course #	Course Title	Credits
1080119600	Oral/Interpersonal Communications	3.00
	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 Reading placement assessment equivalent	
1052619100	Radiographic Procedures 2	5.00
	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	
1052619300	Radiographic Clinical Practice 3	3.00
	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	
TERM 4		
Course #	Course Title	Credits
1052619400	Imaging Equipment Operation	3.00
	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	
1052623100	Imaging Modalities	2.00
	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	
1080919800	Introduction to Psychology	3.00
	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. PREREQUISITE: Reading placement assessment equivalent or COREQUISITE: 10838105 Intro to Reading and Study Skills	

Course #	Course Title	Credits
1052618900	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	1.00
1052619900	Radiographic Clinical Practice 4 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	3.00
TERM 5		
Course #	Course Title	Credits
1080119500	Written Communications 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 Writing placement assessment equivalent and COREQUISITE: 10838105 Intro to Rdg & Study Skills or Reading placement assessment equivalent	3.00
1052619000	Radiographic Clinical Practice 5 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	3.00
TERM 6		
Course #	Course Title	Credits
1052617400	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	2.00
1080919600	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 to Reading and Study Skills or Reading placement assessment equivalent	3.00
1052619700	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	3.00
1052619500	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. CONDITION: 105261 Radiography admissions requirements met and PREREQUISITE: 10526194 Imaging Equipment Operation	2.00
1052619800	Radiography Clinical Practice 6	2.00

Course #	Course Title	Credits
	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	

Total Credits: 70.00

Talk with a Success Coach about the program outline. Together, you will determine if credits you've already earned satisfy any requirements, discuss possible alternative courses, and choose the best classes if you're thinking of transferring.

At A Glance

How You'll Learn

What You'll Learn

- Apply knowledge of anatomy, physiology, positioning, and radiographic techniques to accurately demonstrate anatomical structures on a radiograph or other imaging receptor.
 - Determine exposure factors to achieve optimum radiographic techniques with minimum radiation exposure to the patient.
 - Evaluate radiographic images for appropriate positioning and image quality.
 - Apply the principles of radiation protection for the patient, self, and others.
 - Provide patient care and comfort.
 - Recognize emergency patient conditions and initiate lifesaving first aid and basic life support procedures.
 - Report malfunctions to the proper authority.
 - Exercise independent judgment and discretion in the technical performance of medical imaging procedures.
 - Participate in radiologic quality assurance programs.
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Your Potential Careers

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

Your application can be submitted online, it takes just a few minutes to complete.

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