



### Opportunity Starts Here

#### Quality Education

Lakeland prepares you for a high-demand career or for transfer to a four-year college or university. Professors at Lakeland are experts in their fields with real-world experience. Small class sizes allow for personalized attention.

#### Affordable Tuition

Save thousands on your college education. Lakeland's tuition is about one-third the cost of most four-year schools. Financial assistance is available, including federal and state grants, scholarships, loans, and work study employment.

#### Convenience

Lakeland offers convenient day, evening and weekend class times, and a growing number of online courses. The main campus in Kirtland is only 20 miles northeast of Cleveland. Classes are also offered in Madison, Willowick and Painesville.

#### Focus on Students

Lakeland offers a variety of student services to help you succeed, such as counseling, tutoring, wireless computer labs, career services, free parking, and affordable child care.

### Applying to the Program

A student enrolled in a nursing or allied health program/certificate must complete a criminal background check. Finger printing and/or drug screening may also be required. In such situations, each student is responsible for obtaining and paying for the background check or other screening processes at the school's designated vendor. Although the College will make reasonable efforts to place admitted students in field experiences and internships, it will be up to the host facility to determine whether a student will be allowed to participate in clinical experience at that facility. Host facilities may consider expunged convictions in placement decisions. Students shall further be aware that a criminal record may jeopardize licensure by the State certification body. Students should consult the licensing or certification body corresponding to their intended occupation for more details. Successful completion of a program of study at the College does not guarantee licensure, certification, or employment in the relevant occupation. Standards may change during a student's program of study. Delays, for any reason, in obtaining background results may cause an interruption in the clinical rotation sequence or inability to complete program requirements.

Students convicted of any felony, misdemeanor, or any crime involving moral turtude may be deemed ineligible to sit for the national certification exam in Radiography administered by the ARRT. Students should contact the ARRT for clarification of their eligibility at:

The American Registry of Radiologic Technologists  
1255 Northland Drive • St. Paul, MN 55120 • 651.687.0048 • www.arrt.org

#### OPTION 1: High School Option

This option is for current high school seniors or high school graduates who apply to the program within two years of high school graduation. Please note: Deadlines for submission of applications may be obtained from the admissions or counseling offices.

- Complete college application(s)
- Composite score of 21 or higher on the American College Test (ACT) or combined score of 1400 on the Scholastic Aptitude Test (SAT)
- Complete high school algebra, chemistry and biology with a "C" grade or better
- An overall high school GPA of 2.5 on a 4.0 scale or equivalent
- Meet with a counselor to review program prerequisites and requirements

Upon successful completion of the above criteria, the applicant will be admitted into the program. Students must complete HLTH 1210 (Medical Terminology) with a "C" grade or better prior to enrolling in their first radiologic technology course.

#### OPTION 2: College Option

This option is for students who do not qualify for admission under Option 1. Please note: Deadlines for submission of applications may be obtained from the admissions or counseling offices.

- Complete college application(s)
- Submit high school transcript as well as any college transcript(s)
- Successful passing score on the required program pre-admission test
- Meet with a counselor to review program prerequisites and requirements
- The following courses, or equivalent courses at other regionally accredited colleges, must be completed with a "C" or better and have a minimum cumulative GPA in program applicable courses of 2.8 or better
- HLTH 1210 Medical Terminology
- BIOL 2210 Anatomy & Physiology I

NOTE: Students must meet one of these requirements to take BIOL 2210:

1. High school biology within last five years and high school chemistry
2. High school biology within last five years and CHEM 1100 Elementary Chemistry
3. BIOL 1200 Fundamentals of Biology for the Health Technologies

Students are required to take the Math Placement Test and be placed into MATH 0950 or complete MATH 0850 with a "C" grade or higher.

### For more information

1.800.589.8520 • www.lakelandcc.edu

Jack Thomas, Radiologic Technology Program Director  
440.525.7074 • jthomas@lakelandcc.edu  
www.lakelandcc.edu/academic/sh/rad



# LAKELAND COMMUNITY COLLEGE



## Radiologic Technology

- Associate of Applied Science Degree



Opportunity starts **HERE**

[lakelandcc.edu](http://lakelandcc.edu)

# Radiologic Technology

A rewarding career in medicine and science await those who choose radiologic technology as a profession. Radiographers use x-radiation to produce images of tissues, organs, bones, and vessels of the human body. They accurately position the body part of the patient between the x-ray tube and image receptor and apply the amount of radiation necessary to safely produce a quality diagnostic image. These images are then used by radiologists, who are physicians, to diagnose or rule-out injury or disease. Radiographers play an important role on the health care team as they provide important diagnostic information and communicate with patients, physicians, the public, and other health care professionals.

Radiographers utilize their knowledge of anatomy, physiology, patient positioning, and radiographic technique in the performance of their duties. Additional duties include image processing, evaluation of radiographic equipment and providing patient education relevant to specific imaging procedures. Radiographers strive to provide quality patient care and are particularly concerned with limiting radiation exposure to patients, themselves and others. Radiographers display personal attributes of compassion, courtesy and concern in meeting the special needs of the patient.

## Career Opportunities

There are abundant career opportunities for radiologic technologists, as medical imaging is one of the fastest-growing areas of health care today. Information released by the Ohio Hospital Association indicated a 9.8 percent vacancy rate for radiographers over the last two years in Ohio. The Bureau of Labor Statistics predicts a growth rate of 18-26 percent through 2014. Radiographers can find job openings in hospitals, specialized imaging centers, urgent care clinics, private physician offices, industry, or civil service/public health centers. Advances in machinery and technology have provided career paths for radiographers that were nonexistent 20 years ago. Radiographers can further their careers by specializing in specific imaging techniques and obtaining additional certifications in areas such as computed tomography, magnetic resonance imaging and mammography. A well-planned education is the key to success. The role of the radiologic technologist will continue to expand as they make a significant impact in medical science.



## Lakeland's Program

Lakeland's radiologic technology program is a two-year program leading to an associate of applied science degree. Extensive coursework in imaging and radiographic procedures plus six semesters of clinical experience prepare students to be competent entry-level radiographers. They have the knowledge and technical skills to properly produce and evaluate radiographs of the body and the necessary interpersonal skills to comfortably interact with patients and other members of the health care team. Students also learn to recognize and respond to emergency patient conditions, apply principles of radiation protection, and exercise independent judgment and discretion in performing procedures.

Graduates of the program can further their education with additional courses in computed tomography (CT) and magnetic resonance imaging (MRI) offered by the college.

Lakeland's radiologic technology program is fully accredited by the Joint Review Committee on Education in Radiologic Technology.

Joint Review Committee on  
Education in Radiologic Technology  
20 N. Wacker Drive, Suite 2850  
Chicago, IL 60606-3182  
312.704.5300

## The Lakeland Advantage

- Graduates are eligible to apply for examination by the American Registry of Radiologic Technologists
- National board exam scores of Lakeland students are at or above the national average
- 75 percent job placement rate upon graduation
- Two-year program leading to an associate of applied science degree

# Radiologic Technology Curriculum

## First Semester:

BIOL 2210	Anatomy and Physiology I	4
ENGL 1110*	English Composition I (A)	3
<b>OR</b>		
ENGL 1111	English Composition I (B)	
RADT 1100	Introduction to Radiologic Technology	4
RADT 1210	Radiographic Procedures I	3
RADT 1310	Patient Care and Clinical Experience I	2
		<b>16</b>

## Second Semester:

BIOL 2220	Anatomy and Physiology II	4
ENGL 1120	English Composition II	3
ITIS 1000	Introduction to Personal Computers	1
RADT 1150	Principles of Imaging I	4
RADT 1220	Radiographic Procedures II	3
RADT 1320	Clinical Experience II	2
		<b>17</b>

## Summer Semester:

RADT 2050	Seminar I	1
RADT 2310	Clinical Experience III	4
		<b>5</b>

## Third Semester:

PSYC 1500	Introduction to Psychology	3
RADT 2100	Special Imaging Modalities	2
RADT 2150	Medical Physics	3
RADT 2200	Principles of Imaging II	3
RADT 2320	Clinical Experience IV	3
		<b>14</b>

## Fourth Semester:

RADT 2280	Radiographic Pathology	2
RADT 2330	Clinical Experience V	3
RADT 2410	Radiation Protection and Biology	3
SPCH 1000	Effective Public Speaking	3
<b>OR</b>		
SPCH 1100	Effective Interpersonal Communications	
Choose course(s) from the Arts and Humanities Electives list		
		<b>14</b>

## Summer Semester:

RADT 2340	Clinical Experience VI	4
RADT 2450	Seminar II	2
		<b>6</b>

**Program Total: 72**

\*English course selection is based on placement test results (ENGL 1111 is 4 credits, only 3 credits apply to the degree).

### Arts and Humanities Electives: minimum 3 credits

ARTS 1120, 2220, 2230, 2240; ENGL 2250, 2260, 2280, 2290; HUMX 1100, 1200; MUSC 1200, 2200, 2250; PHIL 1500, 2000

## Radiologic Technology Certificates

- Computed Tomography
- Magnetic Resonance Imaging

## Computed Tomography Certificate (3811)

Computed Tomography (CT) technologists are responsible for taking detailed cross-sectional images of the internal structures of the human body using advanced computerized x-ray equipment. These members of the healthcare team work closely with physicians to provide radiographic studies that assist with patient diagnoses and treatment.

The Computed Tomography certificate program provides technologists with a solid foundation in CT physics and imaging, cross-sectional anatomy, and pathophysiology.

**Students must meet specific admission requirements for this program.** Candidates for this certificate program must be registered by the American Registry of Radiologic Technologists (ARRT), or be registry eligible. Students should contact the director of admissions or the Counseling Office for details about applying for admission to the certificate program.

### First Semester:

RADT 2600	Introduction to Computed Tomography and Magnetic Resonance Imaging	2
RADT 2620	Sectional Anatomy and Pathophysiology I	3
RADT 2720	CT Clinical Experience	2
		<b>7</b>

### Second Semester:

RADT 2640	Sectional Anatomy and Pathophysiology II	3
RADT 2710	CT Physics and Imaging	2
RADT 2720	CT Clinical Experience	2
		<b>7</b>

**Certificate Total: 14**

## Magnetic Resonance Imaging Certificate (3821)

Magnetic resonance imaging (MRI) technologists use radio waves, powerful magnets, and computers to create images of the body. MRI has become an important diagnostic imaging method that has had a significant impact in the field of medicine.

The Magnetic Resonance Imaging certificate program provides technologists with a solid foundation in MRI physics and imaging, cross-sectional anatomy, and pathophysiology.

**Students must meet specific admission requirements for this program.** Candidates for this certificate program must be registered by the American Registry of Radiologic Technologists (ARRT), or be registry eligible. Students should contact the director of admissions or the Counseling Office for details about applying for admission to the certificate program.

### First Semester:

RADT 2600	Introduction to Computed Tomography and Magnetic Resonance Imaging	2
RADT 2620	Sectional Anatomy and Pathophysiology I	3
RADT 2820	MRI Clinical Experience	2
		<b>7</b>

### Second Semester:

RADT 2640	Sectional Anatomy and Pathophysiology II	3
RADT 2810	MRI Physics and Imaging	3
RADT 2820	MRI Clinical Experience	2
		<b>8</b>

**Certificate Total: 15**