

Lakeland

COMMUNITY COLLEGE

PROGRAM GUIDE

Applied Studies Division

Radiologic Technology

- Associate of Applied Science Degree in Radiologic Technology
- Computed Tomography Certificate
- Magnetic Resonance Certificate

 Opportunity
starts **HERE**
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. The Bureau of Labor Statistics predicts a faster than average growth rate through 2024. 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

Extensive coursework in imaging and radiographic procedures, plus five semesters of clinical experience, prepares students to be competent, entry-level radiographers. They have the knowledge and technical skills to properly produce and evaluate radiographic images 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.
- The program provides 1,400 hours of clinical experience in radiology departments.
- This is a two-year program leading to an Associate of Applied Science degree.

For more information

1.800.589.8520 • lakelandcc.edu

Jack Thomas, Radiologic Technology Program Director

440.525.7074 • jthomas@lakelandcc.edu

lakelandcc.edu/radtech



Radiologic Technology (9380)

Associate of Applied Science Degree

Radiographers work under the supervision of qualified radiologists or physicians. Radiographers perform imaging examinations, process and evaluate radiographic images, utilize radiographic equipment, manage quality assurance, provide patient education relevant to specific imaging procedures, and apply radiation protection principles to patients, self, and others. Work settings include hospitals, specialized imaging centers, urgent care clinics, private physician offices, or civil service/public health centers.

Lakeland's Radiologic Technology degree program prepares students to be competent entry-level radiographers. Upon satisfactory completion of the program requirements, graduates are eligible to apply for examination by the American Registry of Radiologic Technologists. Students convicted of any felony or misdemeanor may be prohibited from applying for the certification examination.

Students must be admitted to the Radiologic Technology program to enroll in RADT courses. Other courses may be taken prior to admission to the program.

All students enrolled in a nursing or allied health program/certificate must complete a criminal background check. In accordance with clinical site requirements, students with a criminal record may be ineligible to participate in a clinical course/rotation/practicum. Delays, for any reason, in obtaining background results may cause an interruption in the clinical rotation sequence or inability to complete program requirements. Additional background screening may be required by individual facilities.

Drug testing may be requested in accordance with clinical affiliation requirements and/or for patient/student health and safety.

A minimum GPA of 2.0 and a "C" grade or higher is required in all radiologic technology and general education courses as listed in the curriculum guide for the AAS degree in radiologic technology. Satisfactory/Unsatisfactory grades may not be used to fulfill health program requirements.

Certificates in Computed Tomography and Magnetic Resonance Imaging are available.

Admission Procedures

Students must meet specific admission requirements for this program. Listed below are requirements for admission to the Radiologic Technology Program:

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.

- Complete college application(s).
- Composite score of 21 or higher on the American College Test (ACT) or combined score of 940 on the Scholastic Aptitude Test (SAT).
- Place into MATH 1330 Statistics for the Health Sciences or higher or pass MATH 0850 Beginning Algebra.
- Complete high school algebra, chemistry, and biology with a "C" grade or higher.
- 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.
- Complete an observation day in a radiology department. *(Please note the observation day requirement is temporarily suspended during the pandemic.)*

Upon successful completion of the above criteria, the applicant will be admitted into the program. Students must complete HLTH 1215 Medical Terminology for Health Professions with a "C" grade or higher prior to enrolling in their first health technology course.

Option 2: College Option

This option is for students who do not qualify for admission under Option 1.

- 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 requirement.
- The following courses, or equivalent courses at other regionally accredited colleges, must be completed:
 - BIOL 2210 Anatomy and Physiology I: two attempts to earn a "B" grade or higher
 - HLTH 1215 Medical Terminology for Health Professions: a "C" grade or higher
- Complete an observation day in a radiology department. *(Please note the observation day requirement is temporarily suspended during the pandemic.)*

NOTE: Students must meet one of these requirements to take BIOL 2210 Anatomy and Physiology I with a "C" or higher:












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 1330 Statistics for the Health Sciences or complete MATH 0850 Beginning Algebra with a "C" grade or higher.



Option 3: Advanced Education Option

Students pursuing this option must have an Associate of Applied Science Degree in Nursing or Allied Health, Bachelor of Science Degree in a natural science, or an Associate of Science Degree to be waived from the preadmission testing. All other Option 2 requirements apply.

Curriculum


Course	Title	Credit Hours
First Semester		
BIOL 2210	Anatomy and Physiology I	4
ENGL 1110 or ENGL 1111	English Composition I (A) ¹ or English Composition I (B)	3
FYEX 1000	First Year Experience	1
RADT 1100	Introduction to Radiography and Imaging Principles 	4
RADT 1210	Radiographic Procedures I 	3
1st 8 weeks		
RADT 1300	Patient Care in Radiography	1
Credit Hours		16
Second Semester		
BIOL 2220	Anatomy and Physiology II	4
RADT 1150	Principles of Imaging II 	4
RADT 1220	Radiographic Procedure II 	3
RADT 1320	Clinical Experience I 	2
Credit Hours		13
Summer Semester 1		
MATH 1330	Statistics for the Health Sciences (or any mathematics course from MATH 1550 or higher) ²	3
RADT 2310	Clinical Experience II 	2
Credit Hours		5
Third Semester		
PSYC 1500	Introduction to Psychology	3
RADT 2100	Special Imaging Modalities 	2
RADT 2150	Radiation Physics	3
RADT 2200	Principles of Imaging III 	3
RADT 2320	Clinical Experience III 	3
Credit Hours		14
Fourth Semester		
COMM 1000 or COMM 1100	Effective Public Speaking or Effective Interpersonal Communications	3
RADT 2280	Radiographic Pathology	2
RADT 2330	Clinical Experience IV 	3
RADT 2410	Radiation Protection and Biology 	3
Select course(s) from the Arts and Humanities Electives list		3
Credit Hours		14

Summer Semester 2

RADT 2340	Clinical Experience V 	2
RADT 2450	Seminar II 	2
Credit Hours		4
Total Credit Hours		66

¹ English course selection is based on placement test results (ENGL 1111 English Composition I (B) is 4 credits, only 3 credits apply to the degree).

² Students planning to transfer to a four-year college should take a sequence of math as advised by their counselor

 This course is designated as a technical course in the program. Students must earn a "C" grade or higher in the course to fulfill the college's graduation requirements policy.

Electives

Course	Title	Credit Hours
Arts and Humanities		
ARTS 1120	Art Appreciation	3
ARTS 2220	Survey of Art I	3
ARTS 2230	Survey of Art II	3
ENGL 2250	Survey of American Literature I	3
ENGL 2260	Survey of American Literature II	3
ENGL 2280	Survey of British Literature I	3
ENGL 2290	Survey of British Literature II	3
HUMX 1100	Introduction to Humanities	3
HUMX 1200	The American Experience in the Arts	3
MUSC 1200	Music Appreciation	3
MUSC 1215	World Music	3
MUSC 1800	Popular Music: Rock, Jazz, Country, and Hip-Hop	3
MUSC 2200	Music History and Literature I	3
MUSC 2250	Music History and Literature II	3
PHIL 1500	Introduction to Philosophy	3
PHIL 2000	Comparative Religion	3
PHOT 1000	History of Photography	3

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 enrolled in a radiography program as a second year student. Students should contact the director of admissions or the Counseling Office for details about applying for admission to the certificate program.

Course	Title	Credit Hours
First Semester		
RADT 2600	Introduction to Computerized Imaging Modalities	2
RADT 2620	Sectional Anatomy and Pathophysiology I	3
RADT 2720	CT Clinical Experience	2
Credit Hours		7
Second Semester		
RADT 2640	Sectional Anatomy and Pathophysiology II	3
RADT 2710	CT Physics and Imaging	2
RADT 2720	CT Clinical Experience	2
Credit Hours		7
Total Credit Hours		14

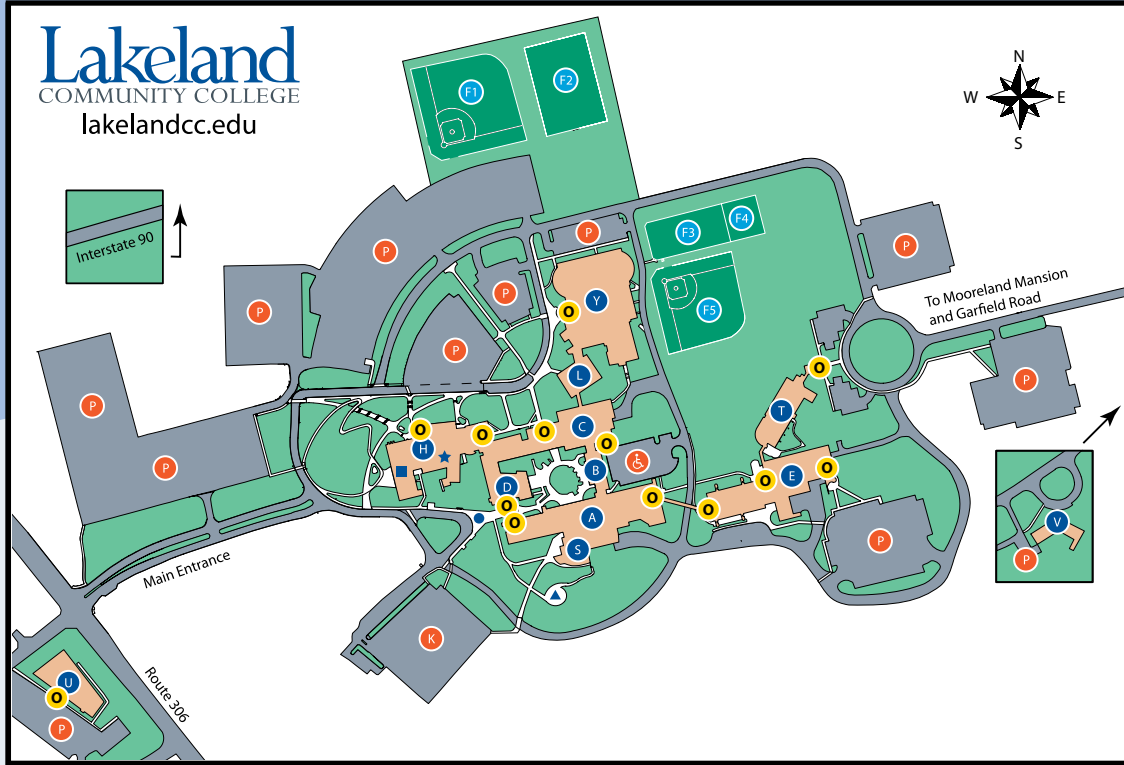
Magnetic Resonance Imaging Certificate (3821)

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 enrolled in a radiography program as a second year student. Students should contact the director of admissions or the Counseling Office for details about applying for admission to the certificate program.

Course	Title	Credit Hours
First Semester		
RADT 2600	Introduction to Computerized Imaging Modalities	2
RADT 2620	Sectional Anatomy and Pathophysiology I	3
RADT 2820	MRI Clinical Experience	2
Credit Hours		7
Second Semester		
RADT 2640	Sectional Anatomy and Pathophysiology II	3
RADT 2810	MRI Physics and Imaging	3
RADT 2820	MRI Clinical Experience	2
Credit Hours		8
Total Credit Hours		15



CAMPUS MAP

- | | | |
|--|-------------------------------------|--|
| A A-Building/
Student Service Center | F4 Multi-Purpose Court | V Mooreland Mansion |
| B B-Building | F5 Softball Field | Y Athletic & Fitness Center |
| C C-Building | H H-Building | ● Clocktower |
| D D-Building | K Faculty Staff Lot | ★ Dental Hygiene Clinic |
| E E-Building | L Teaching Learning Center | ♿ Handicap Parking |
| F1 Baseball Field | P Parking | ■ HIVE |
| F2 Soccer Field | S S-Building/Breakers Dining | ▲ Mind Ladders |
| F3 Tennis Courts | T T-Building | ○ Open Entrances and Temperature
Check Station during COVID-19 |
| | U Holden University Center | |

Quality Education

Professors at Lakeland are experts in their fields with real-world experience. Lakeland prepares you for a high-demand career or for transfer to a four-year college or university. Access to bachelor's and graduate degrees is available on campus from partner institutions through Lakeland's Holden University Center (lakelandcc.edu/uc).

Affordable Tuition

Lakeland's tuition is about one-third the cost of most four-year schools. More than 50 percent of Lakeland students receive some form of financial assistance (lakelandcc.edu/tuition).

Convenience

Lakeland offers convenient day, evening, weekend and online courses (lakelandcc.edu/schedule).

Focus on Students

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

Opportunity starts HERE

Visit us on campus or online. Call 440.525.7900, email recruitmentcenter@lakelandcc.edu or visit lakelandcc.edu/visit for a campus tour.

Apply online: lakelandcc.edu/apply

Accreditation

Lakeland Community College is accredited through the Higher Learning Commission (HLC) and participates in the Academic Quality Improvement Program (AQIP). The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413, phone: 800.621.7440, hlcommission.org.