Lakeland COMMUNITY COLLEGE

PROGRAM GUIDE

Applied Studies Division

Radiologic Technology

- Associate of Applied Science Degree in Radiologic Technology
- Computed Tomography Certificate
- Magnetic Resonance Imaging 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 1,500 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

To further your education, Lakeland's Holden University Center offers a variety of bachelor's degree programs from a number of four-year colleges and universities offering you the opportunity to *stay here and go far!* Visit lakelandcc.edu/uc to explore your options.

First Semester:

BIOL 2210 . . . . . Anatomy and Physiology I 4
ENGL 1110* . . . . . English Composition I (A) 3
OR
ENGL 1111 . . . . . English Composition I (B)
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

16

Second Semester:

BIOL 2220 . . . . . Anatomy and Physiology II 4
RADT 1150 . . . . . Principles of Imaging II 4
RADT 1220 . . . . . Radiographic Procedures II 3
RADT 1320 . . . . . Clinical Experience I 2

13

Summer:

MATH 1330 or any mathematics course from MATH 1550 or higher** 3
RADT 2310 . . . . . Clinical Experience II. 2

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

14

Fourth Semester:

COMM 1000 . . . . . Effective Public Speaking 3
OR
COMM 1100. . . . . Effective Interpersonal Communication
RADT 2280 . . . . . Radiographic Pathology 2
RADT 2330 . . . . . Clinical Experience IV. 3
RADT 2410 . . . . . Radiation Protection and Biology 3
Choose course(s) from the Arts and Humanities Electives list. 3

14

Summer:

RADT 2340 . . . . . Clinical Experience V 2
RADT 2450 . . . . . Seminar 2

4

Program Total: 66

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

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

Arts and Humanities Electives: minimum 3 credits

ARTS 1120, 2220, 2230; ENGL 2250, 2260, 2280, 2290; HUMX 1100, 1200; MUSC 1200, 1215, 1800, 2200, 2250; PHIL 1500, 2000; PHOT 1000

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 health care team work closely with physicians to provide radiographic studies that assist with patient diagnoses and treatment.

The CT 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.

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

7

Second Semester:

RADT 2640 . . . . . Sectional Anatomy and Pathophysiology II 3
RADT 2710 . . . . . CT Physics and Imaging 2
RADT 2720 . . . . . CT Clinical Experience 2

7

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 on 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.

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

7

Second Semester:

RADT 2640 . . . . . Sectional Anatomy and Pathophysiology II 3
RADT 2810 . . . . . MRI Physics and Imaging 3
RADT 2820 . . . . . MRI Clinical Experience 2

8

Certificate Total: 15

Radiologic Technology

Lakeland Community College Admission Requirements

For admission into Lakeland, students must be a high school graduate or have obtained a high school diploma equivalency. Please consult Lakeland Community College's Enrollment Guide (available on Lakeland's website at lakelandcc.edu/enrollment) for specific admissions requirements and procedures.

Health Program Admission Requirements

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 1400 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.

Upon successful completion of the above criteria, the applicant will be admitted into the program. Students must complete HLTH 1215 (Medical Terminology for Health Professionals) 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 with a "C" or higher and have a minimum cumulative GPA of 2.5 or higher.
  - HLTH 1215 Medical Terminology for Health Professionals
  - BIOL 2210 Anatomy & Physiology I
- Complete an observation day in a radiology department.

NOTE: *Students must meet one of these requirements to take BIOL 2210 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. Biology 1200 Fundamentals of Biology for the Health Technologies.

Students are required to take the Math Placement Test and be placed into MATH 1330 or complete MATH 0850 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 and program requirements are subject to change. Find the most up-to-date information in the college catalog, available on the website at lakelandcc.edu.

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.

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.

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, www.hlcommission.org.

Lakeland COMMUNITY COLLEGE

4/2018 sm