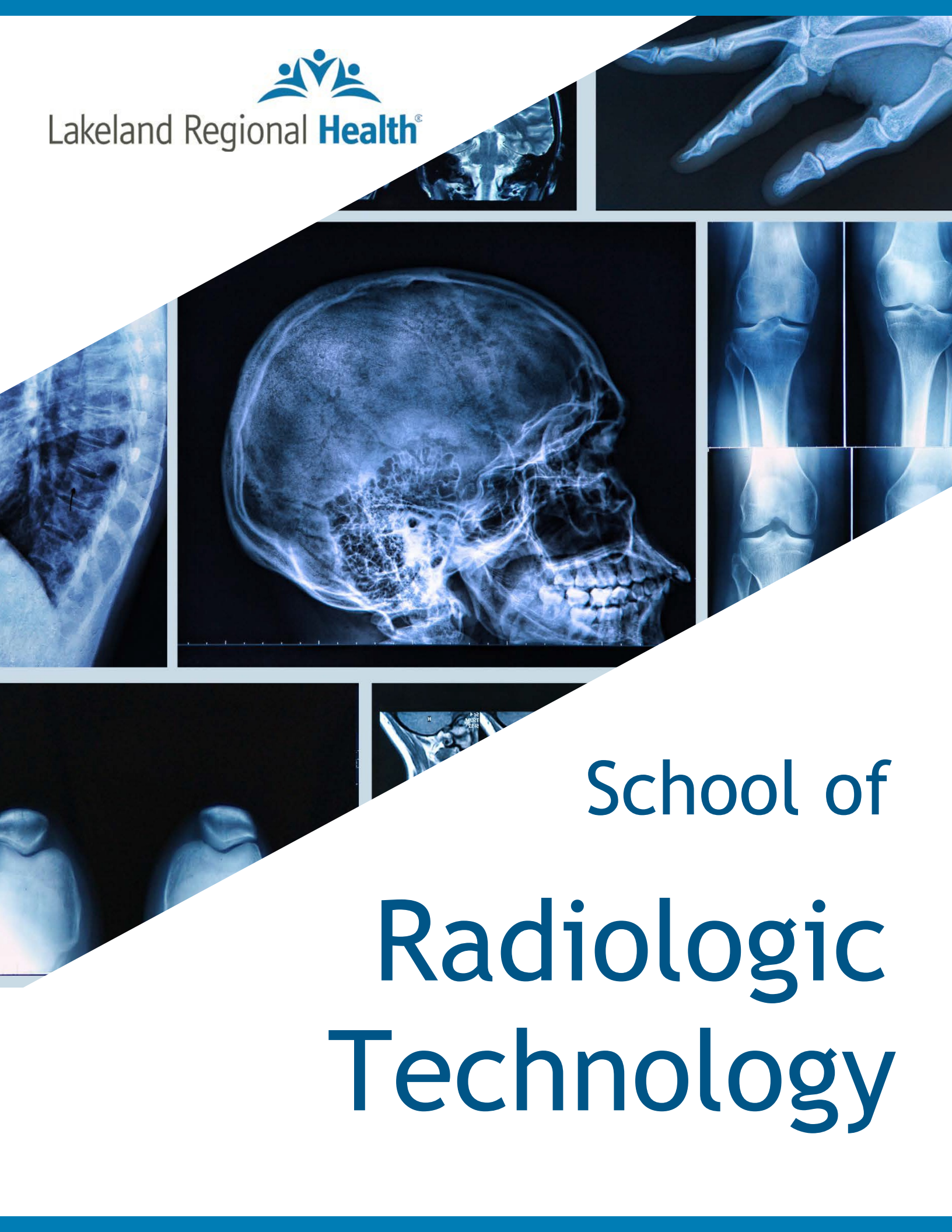




Lakeland Regional Health<sup>®</sup>



School of  
**Radiologic  
Technology**

# Lakeland Regional Health School of Radiologic Technology

## TWO YEARS TO YOUR FUTURE.....

Welcome to the Lakeland Regional Health Medical Center School of Radiologic Technology Program. Medical imaging professionals utilize x-rays and other energy forms to help diagnose and treat medical conditions. The medical imaging professional (radiologic technologist or radiographer) provides quality patient care while creating diagnostic images independently, assisting radiologists and other physicians in imaging the body, and operating specialized radiographic equipment.

Lakeland Regional Health is looking for individuals who are committed to caring for themselves, our team members, our patients and families and our entire community. This program is ideal for people interested in both personal interaction and a “high-tech” career. Medical imaging professionals apply their knowledge of anatomy, physiology, pathology, patient positioning, radiation protection, and image production techniques in the performance of their duties. Students acquire the knowledge and skills necessary for professional competence through a blend of classroom and clinical education.

Students of Lakeland Regional Health Medical Center School of Radiologic Technology will have the unique opportunity to complete didactic and clinical components for both Radiography and Computed Tomography (CT). The education received at LRH will allow the student to complete The American Registry of Radiologic Technologists® (ARRT) requirements for the national certification exams in both Radiography and CT in the traditional 23-month time frame.

### **Our Vision**

Lakeland Regional Health Medical Center School of Radiologic Technology,  
providing the best educational experiences.

### **Our Core Purpose / Mission**

Graduating individuals with the qualities, knowledge, and competencies necessary to become Registered Radiologic Technologists who provide the best outcomes and safest care.

### **Our Values & Beliefs**

We Promise...

- to treasure all people as uniquely created
- to nurture, educate and guide with integrity
- to inspire each and every one of us to do our very best

### **Our Goals**

- Goal 1. Students will demonstrate competence for successful practice as entry-level radiographers.
- Goal 2. Students will develop and demonstrate growth, professional ethics, and characteristics of a healthcare practitioner.
- Goal 3. Students will demonstrate abilities in effective communication with staff and patients.
- Goal 4. Students will apply critical thinking and problem-solving skills necessary for professional practice.

## INTRODUCTION

Radiologic Technology is both an art and a science and offers limitless opportunities for growth. The education offered at Lakeland Regional Health provides exposure to many Radiologic disciplines including Diagnostic & Fluoroscopic Imaging, Vascular & Interventional Imaging, Cardiac Imaging, Magnetic Resonance Imaging (MRI), CT Imaging, Mammography, Ultrasound, Radiation Therapy, and Nuclear Medicine. This exposure will open the door to specialization if you wish to continue your education. The choice is entirely up to you.

The role of the Radiologic Technologist (or "Radiographer") is varied and includes providing quality patient care while performing various radiology-related procedures. The primary function of a Radiographer is to use x-rays to visualize and record anatomy of the human body. This entails knowledge of:

- theories of x-ray production
- interaction of photon energy with matter
- biological effects of radiation on living cells
- anatomy and physiology of the human body
- pathology
- patient care and nursing skills
- exact patient positioning to allow for visualization of anatomy on a radiograph

## GENERAL INFORMATION

Lakeland Regional Health School of Radiologic Technology provides a diverse education in radiologic technology and enables graduates to become registered Radiologic Technologists. The School of Radiologic Technology was organized in 1965 and is sponsored by Lakeland Regional Health Medical Center. The Lakeland Regional Health School of Radiologic Technology is accredited by the following agency:

Joint Review Committee on Education in Radiologic Technology (JRCERT)  
20 North Wacker Drive, Suite 2850  
Chicago, Illinois 60606-3182  
312.704.5300 + e-mail: [mail@jrcert.org](mailto:mail@jrcert.org)

The JRCERT is recognized by the U.S. Department of Education as an approved accrediting agency. The program is also approved by the State Approving Agency for Veterans Training and HEW. Qualified veterans are eligible to apply for financial benefits.

The program is a hospital-based educational program and requires 23 months of full-time attendance in classroom and clinical courses. Classes begin in the summer of each year. After successful completion of the 23-month program, students are issued a certificate of achievement and will have completed the radiography requirements needed to apply for the national examination in Radiologic Technology given by the American Registry of Radiologist Technologists® (ARRT). Applicants who pass the American Registry examination receive a certificate that confers upon them the right to use the title "Registered Technologist in Radiography" or the abbreviation "R.T.(R)" along with their names. This certification is an indication that the individual is qualified to work in the field of ionizing radiation.

The American Registry of Radiologic Technologists® (ARRT) is a national certifying agency for radiologic technologists recognized by the American Society of Radiologic Technologists (ASRT®), the American College of Radiology (ACR), and the American Medical Association (AMA).

## HOSPITAL INFORMATION

### Our Vision

Together, our Promise is YOUR HEALTH

### Our Mission

We deliver the best outcomes and safest care by placing people at the heart of all we do.  
We improve lives every day by promoting wellness, education and discovery.

### Our Promises

We Promise...

- to treasure all people as uniquely created
- to nurture, educate and guide with integrity
- to inspire each and every one of us to do our very best

Lakeland Regional Health Medical Center, a not-for-profit facility, has served Lakeland and the surrounding communities for 100 years. LRH is licensed for 849 beds and is accredited by The Joint Commission (TJC). In 2016 and 2017, according to *Becker's Hospital Review*, Lakeland Regional Health Medical Center Emergency Department (ED) was the busiest single-site ED in the United States. Lakeland Regional Health offers some of the most comprehensive and sophisticated care available, from early detection and education programs, to primary and specialized care, and is equipped with a variety of the most advanced radiographic and diagnostic imaging equipment. The Medical Center's patients enjoy a wide scope of specialized medical services uncommon in a community of this size.

The Department of Radiology incorporates two independent groups of radiologists and is guided by a director who acts as a liaison between the hospital administration, the radiologists, and staff personnel within the various radiology modalities. Students are under the direct supervision of the School Program Director, School Program Clinical Coordinator, Clinical Instructors, and Imaging Clinical Coordinators.

## ADMISSION POLICIES & PROCEDURES

The application process and requirements for consideration of admission to the program are:

### 1. If you have earned an A.A., A.S. or higher degree from an appropriately accredited school

You must have the following prerequisite college-level courses:

- **Anatomy & Physiology:**
  - Anatomy & Physiology I & II
- **College Algebra**
- **Medical Terminology**
- **Introduction to Computers or Computer Literacy:**
  - College-level course in computer basics or computer programming.
- **English Composition**
- **Ethics or comparable Social Science**
- **General Psychology**

**OR**

### If you do not have an A.A., A.S. or higher degree

To be awarded the degree upon completion of LRH Radiography Program, all necessary degree requirements through our articulation agreements must be completed at one of the following colleges:

- Polk State College (PSC) [www.polk.edu/radiography](http://www.polk.edu/radiography)
- Hillsborough Community College (HCC) [www.hccfl.edu/academics.aspx](http://www.hccfl.edu/academics.aspx)
- Valencia College (VC) [www.valenciacollege.edu](http://www.valenciacollege.edu)

**OR**

Student must be enrolled in the Bachelor of Science in Medical Imaging Sciences Program at Clarion University [www.clarion.edu](http://www.clarion.edu) and have completed a minimum of 60 hours of credit required of the Medical Imaging Sciences Program.

2. You must have an overall GPA of 2.5 or higher and no lower than a “C” in any given prerequisite course and a minimum of 2.5 GPA in math and science courses.
3. Submission of a completed program application with \$25.00 application fee.
4. Completion of a minimum of one four-hour observation session in the Radiology Department at Lakeland Regional Health. Please read Student Observation Orientation Handbook and fill out the observation application.
5. Complete and submit Clinical Observation Form with application
6. Submission of a two-page typewritten Purpose Statement in APA Style including, but not limited to:
  - Reasons for selecting Radiologic Technology as a career
  - Reasons for selecting LRH School of Radiologic Technology
  - Your plans and aspirations for the future
7. Submission of official, sealed college transcripts.
8. Submission of two references utilizing the program’s applicant reference forms
9. Applicants are responsible to confirm their degrees are granted by an institution accredited by a mechanism recognized by ARRT. Click here to confirm. <https://www.arrt.org/students-of-the-profession/requirements/education/associate-degree-requirement/arrt-recognized-accreditation-mechanisms>
10. Completion of a basic math admissions test. (This test will be administered during the interview process.)
11. Ability to meet the requirements of the school’s published Technical Performance Standards.

Upon request, the radiography program director will evaluate transcripts for appropriateness of courses taken. If you have any questions regarding the pre-requisite requirements, please call the program director for guidance.

## ARTICULATION AGREEMENTS

**Credit for successful completion of the program:** Lakeland Regional Health School of Radiologic Technology has articulation agreements with Polk State College (PSC), Hillsborough Community College (HCC) and Valencia College (VC) for students entering the program without an A.A. or A.S. degree or higher. All of the following prerequisite courses must be completed prior to admission to LRH. Students entering the program who seek an A.S. degree at PSC, HCC or VC are to be granted a block of credit hours from LRH toward their A.S. degree. Each college requires the student to complete a minimum of 25% of the degree credits (between 20 and 26 credit hours depending on the college) at that institution. See the list below of requirements for each college:

### PSC requirements

- ENC1101 College Composition 1
- MAT1105 College Algebra or higher
- PHI2600 Ethics
- PSY2012 General Psychology or other Social Science approved for General Education at PSC
- BSC2085C Anatomy and Physiology I
- BSC2086C Anatomy and Physiology II
- HLP1081 Wellness Concepts
- CGS1061C Intro to Computers and Information Systems
- HSC1531 Medical Terminology

### HCC requirements

- ENC1101 English Composition I
- PSY2012 General Psychology
- BSC1085 Human Anatomy & Physiology I
- BSC1085L Human Anatomy & Physiology I Lab
- MAC1105 College Algebra or Higher
- CGS1000 Introduction to Computers and Tech
- BSC1086 Human Anatomy & Physiology II
- BSC1086L Human Anatomy & Physiology II Lab
- General Education Humanities Courses (approved for RTE program)
- Medical Terminology (not required by HCC but to enter LRH)

### VC requirements

- ENC1101 English Composition I
- Humanities General Education Core or Institutional Course
- MAC 1105 College Algebra or higher
- PSY 2012 General Psychology
- BSC2093C Anatomy and Physiology I
- BSC2094C Anatomy and Physiology II
- CGS1060C Intro to Computers
- HSC1531 Medical Terminology

Students may transfer a minimum amount of credits from other institutions to LRH but do not automatically qualify for the articulation agreement. They may submit an evaluation of credit from previous institutions to the Registrar at PSC, HCC or VC, who will determine if the student will qualify under their articulation agreement with LRH.

The student is responsible to ensure they have completed all of the requirements from PSC, HCC or VC and are eligible for graduation with an A.S. degree from PSC, HCC, VC upon completion of LRH School of Radiologic Technology. Without an A.S., A.A. or higher degree the student **will not** meet the requirements for the ARRT certification exam.

### ***Application Check List***

Applications are accepted from November 1 through February 1 of each year. All forms needed for applying to LRH School of Radiologic Technology can be found at the following site under the heading of "Getting Started":  
<https://mylrh.org/school-radiologic-technology/>

Required when submitting application packet to LRH School of Radiologic Technology listed below:

- 1. Program Application for Admission**
- 2. Application fee of \$25 – check or money order made payable to Lakeland Regional Health**
- 3. Official sealed college transcripts**
  - a. If using the articulation agreement to obtain an A.S. degree from PSC, HCC, VC, please check with an advisor from that institution to make sure you meet their requirements to receive your A.S. degree upon completion of the LRH Radiography program.**
- 4. Two applicant reference forms**
- 5. Signed technical standards form**
- 6. Two-page typewritten Purpose Statement, APA Style, including, but not limited to:**
  - a. Reasons for selecting Radiologic Technology as a career**
  - b. Reasons for selecting LRH School of Radiologic Technology**
  - c. Your plans and aspirations for the future**
- 7. Clinical observation form**

All applicants meeting the minimum requirements for admission are interviewed and evaluated by the members of the Student Acceptance Committee for acceptance into the School of Radiologic Technology. Acceptance in the program is based on a point system. Points will be given for the following criteria: college math and science GPA, higher level college math and sciences courses, assigned essay, college degree, previous education in allied health field, and on-site interview score. Approximately 12 students are accepted into the program each year. Each student accepted will be scheduled at Lakeland Regional Health's Employee Health Department for a physical exam, background check, and drug screening (which includes testing for nicotine). LRH has joined organizations like Mayo Clinic, Cleveland Clinic, and Orlando Health in maintaining a prohibition in using tobacco products. Effective April 1, 2017, LRH prohibits the hiring of applicants (including LRH students), volunteers, or contractors who use tobacco products. All required components of this process must be met prior to final acceptance into the program. For more information or for an appointment for observation, please call or write the address below:

Program Director  
School of Radiologic Technology  
Lakeland Regional Health  
P.O. Box 95448  
Lakeland, FL 33804  
Phone: 863.687.1100, ext. 3768 or 3769

## **TRANSFER OF CREDIT**

**Credit for previous education:** Any student transferring from another JRCERT approved program into the program at Lakeland Regional Health will be evaluated for acceptance and advanced standing on an individual basis. All VA students who have had prior training in radiologic technology will be evaluated on an individual basis and credit will be awarded where appropriate. The student and the VA office will be notified of credit awarded.

## FINANCIAL INFORMATION

Application Fee ( <u>non-refundable</u> )	\$ 25.00
Tuition (\$675.00 / quarter x 8)	5,400.00

Payable to Lakeland Regional Health. Quarter one payment is due by May 30; quarters two – eight are due the last week of class prior to the start of the next quarter.

If for any reason a student does not complete the quarter, the tuition refund policy is as follows:

1st week	50% refund
After 1st week	no refund

Background Check, Drug Screening, and Physical (if accepted into the program) completed at Lakeland Regional Health - <u>non-refundable</u>	200.00
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### First Year Fees

Books (approximate cost)	850.00
Trajecsys – web based education management system	150.00
American Society Radiologic Technology membership	35.00
Florida Society of Radiologic Technology membership	30.00

### Second Year Fees

Books (approximate cost)	100.00
Supply Fee	30.00
American Society Radiologic Technology membership	35.00
CORECTEC on line course	80.00
Graduation Fee	125.00

### ***Current fees subject to change***

Each student is responsible for his or her own uniforms, room, food, transportation, seminar, personal graduation expenses, and all application fees associated with state and/or national certification examinations.

<b>American Registry of Radiologic Technologists national certification exam</b>	200.00
<b>DOH Florida State License</b>	50.00

The Radiology Program does not participate in Title IV financial aid. Second-year students are eligible to apply for a scholarship offered by the LRH Foundation. Scholarships are dependent upon donations made to the Foundation Radiology Scholarship Fund. Foundation Scholarships are awarded based on student's grade point average and financial need. Employees of LRH are eligible for Education Assistance contingent with LRH Policy 1.32.001.12 and the Career Advancement Program. The American Society of Radiologic Technologist (ASRT) offers scholarships for entry-level students; information can be found at [www.asrt.org](http://www.asrt.org) Financial assistance is offered by the Agricultural and Labor Program (ALPI) for students who are residents in Polk, Highlands, Glades, and Hendry counties. Funding available through Meritize. Get pre-approved in minutes at <https://apply.meritize.com>. A variety of financial aid may be available at [www.fastweb.com](http://www.fastweb.com)

Textbooks can be purchased as new or used; workbooks must be purchased new. Textbooks may be bought or sold to other students or at the owner's discretion. Upon acceptance into the program you will be notified of the current list of textbooks and workbooks. Books change yearly so do not buy books until notified.



## CLASSROOM AND CLINICAL EDUCATION

After orientation, students are scheduled for approximately ten to twelve hours of classroom instruction per week during each quarter of the program. An minimum average of 78% or "C" in all courses must be maintained to graduate. Additionally, each student must pass a first-year final examination to progress to the second year, and a second-year final examination to graduate from the program.

The didactic grading scale is as follows:

93 - 100%	A
84 - 92%	B
78 - 83%	C
Below 78%	F

After orientation, clinical education courses require approximately 28 hours of scheduled clinical rotations per week. Students are supervised, instructed, and evaluated by staff radiographers, clinical instructors, the clinical coordinator and program director. Students must show competence in performing specified diagnostic procedures in order to graduate from the program. Students are assigned to different clinical rotations in various clinical settings to allow for adequate exposure and experiences in all areas of Radiologic Technology. Most clinical assignments and rotations are completed at Lakeland Regional Health, Monday – Friday from 8 a.m. – 4 p.m. However, due to different procedure experiences, students will be assigned to clinical rotations at various times during the 23-month course of study that range between 5:00 a.m. and 7:00 p.m. All students will be assigned a total of six, week-long rotations from 3:30 to 9:30 p.m. These rotations are scheduled in quarters 3 through 8.

The clinical grading scale is as follows:

95 - 100%	A
87 - 94%	B
80 - 86%	C
Below 80%	F

### English Language:

All classroom and clinical instruction will be conducted in English. By accepting a position in this program, the student acknowledges this and accepts the responsibility for sufficient proficiency in the English language to be able to successfully complete the program.

### Student Services and Benefits:

The school has a dedicated classroom and a learning/resource lab for instructional purposes. Students have access to the hospital's radiographic rooms for demonstration and practice labs; access to the hospital's medical library, computer lab, and internet services for research assignments or projects; use of the school's imaging phantoms and anatomic models; and access to numerous self-study audiovisual and computer-aided instructional materials covering all disciplines of Radiologic Technology. Tutoring services are available when requested and scheduled. The hospital's Employee Health Department provides services for medical testing, immunizations, illnesses, or injuries related to the student's clinical assignments while in the radiography program. Students will be referred to their personal physician for any other medically related needs. Students have access to LRH's chaplain services and may also be referred to Peace River Center which provides a vast amount of resources including counseling and crisis assistance to the greater Polk County community. Students receive the same discount as employees when using the hospital's cafeteria.

### Graduation Requirements:

Requirements to receive a certificate of completion and to graduate from Lakeland Regional Health School of Radiologic Technology are as follows:

1. Successfully complete all required didactic and clinical courses.
2. Complete the required senior projects.
3. Pass both first and second year comprehensive final examinations with a minimum score of 78%.

## **SCHOOL BREAKS & HOLIDAYS**

The LRH radiography program operates on a quarter system. Quarter breaks vary in length, fall and spring breaks are one week, winter/Christmas break is two weeks, and summer break is two and a half weeks. Additionally, students do not attend class or clinical rotations on the following holidays:

- Labor Day
- Thanksgiving Day
- Friday after Thanksgiving
- Good Friday
- Memorial Day
- July 4th

## **PROGRAM STAFF**

Medical Advisor	Duane Lee, PA-C, RRA, RT(R)
Program Director	Barbara Sanders, MSRS, RT(R)(CV)(M)
Clinical Coordinator	Chris Kowtko, MSRS, RT(R)(M)
Faculty	Tina Bishop, AS, RT(R)(CT)

In addition, we have Clinical Instructors at all clinical sites. We also have various instructors who provide classroom instruction in specialty areas.

## **FIRST YEAR COURSE DESCRIPTIONS**

### **RAD 100 – ORIENTATION TO RADIOLOGIC TECHNOLOGY**

This course is an introduction to Radiologic Technology as a profession. This course provides the foundation for all other courses studied during the 23-month program.

As part of the course, students are rotated through pre-clinical assignments in the Radiology Department for observation and orientation of the various aspects and functions of the radiology areas within the hospital. Included in this pre-clinical exposure are practice labs to familiarize students to various patient positions and basic operation of a radiographic tube, table and control panel.

### **RAD 110 - RADIOLOGIC PATIENT CARE**

This course involves a study of nursing techniques and practices, pharmaceuticals, drug administration, patient care strategies as they relate to the diagnostic, mobile, and fluoroscopic practices of patient care during the performance of Radiographic Procedures.

### **RAD 120 – ANATOMY, PHYSIOLOGY, AND RADIOGRAPHIC PROCEDURES I**

This course begins with the study of development, anatomy, physiology, common pathologies and medical terminology associated with the skeletal system, chest and abdomen. Included in this course are lecture/ audio-visual presentations, demonstrations, and practice labs of the anatomy and positioning (as it relates to radiologic diagnosis and treatment) of the upper and lower extremities, pelvic girdle, shoulder girdle, chest and abdomen. Instruction and demonstration of routine, trauma, and mobile radiographic procedures are included. This course also includes the study of pediatric imaging including special positioning, immobilization, exposure factors, and communication techniques. The final portion of this course includes an introduction to surgical equipment and procedures. Presented concurrently with this course is **Image Critique and Identification**, which includes assessment of image quality (positioning and exposure) and identification of radiographic anatomy and simple pathologies. The necessity of proper radiation protection practices are stressed for any given procedure studied or demonstrated.

### **RAD 130 – RADIOGRAPHIC EXPOSURE I**

This course is a comprehensive study of all principles related to radiographic exposure and quality as they relate to density, contrast, detail visibility, definition and distortion as well as their implications in patient exposure. All concepts discussed will include analog and digital imaging systems.

### **RAD 121 – ANATOMY, PHYSIOLOGY, AND RADIOGRAPHIC PROCEDURES II**

This course is a study of development, anatomy, physiology, common pathologies, and medical terminology associated with body systems. Included in this course is an introduction to pathology, and the study of the pathologies of the various systems studied during this course. Lecture/audio-visual presentations, demonstrations, and practice labs of radiographic positioning and procedures for each associated body system are studied in depth. Presented concurrently with this course is **Image Critique and Identification**, which includes assessment of image quality (positioning and exposure) and identification of radiographic anatomy and pathologies. The necessity of proper radiation protection practices are stressed for any given procedure studied or demonstrated.

### **RAD 122 – ANATOMY, PHYSIOLOGY, AND RADIOGRAPHIC PROCEDURES III**

The first section of this course involves lecture, demonstration and practice labs of the anatomy, physiology, positioning, and pathology (as it relates to Radiologic diagnosis and treatment) of the skull and facial bones. Instruction and demonstration on routine and trauma procedures are included. Gross anatomy and pathology of the Central Nervous System – brain and spinal cord will be examined. The second part of this course is the study of cross-sectional anatomy of the head, face, neck, thorax, spine, abdomen/pelvis, upper and lower extremities. Instruction, demonstration and practice labs of positioning (as it relates to Computed Tomography diagnosis and treatment) of the aforementioned anatomy is included. Presented concurrently with this course is **Image Critique and Identification**, which includes assessment of image quality (positioning and exposure), and identification of cross sectional and radiographic anatomy and pathologies.

### **RAD 140 – CT BASICS**

This course involves lecture on the fundamental basics of Computed Tomography, to include the discovery and development of CT, the generations of CT, location and function of major CT components, and common uses of computed tomography in medical imaging. CT procedures will be discussed to include routine and trauma exams of the head, face, neck, spine, thorax, upper/lower extremities, abdomen/pelvis and central nervous system. CT imaging procedures are correlated with the study of associated cross-sectional anatomy. Lecture/ audio-visual presentations, demonstrations of procedures for each associated system or specialized area are studied in depth. Presented concurrently with this course is patient safety which includes the necessity of proper radiation protection practices for any given procedure studied or demonstrated and Image Gently.

## **SECOND YEAR COURSE DESCRIPTIONS**

### **RAD 230 – RADIOGRAPHIC EXPOSURE II**

This course is a study of x-ray fundamentals as related to types of image receptors and processing; image display; formation of proper techniques and use of automatic exposure control devices. All topics will include concepts for analog, digital, and computed tomography imaging systems.

### **RAD 220 – ANATOMY, PHYSIOLOGY, AND RADIOGRAPHIC PROCEDURES IV**

This course is a continuation of the study of the development, anatomy, physiology, common pathologies, and medical terminology associated the urinary, circulatory and lymphatic body systems, skeletal system pathology and specialized areas of radiography. Lecture/audio-visual presentations, demonstrations, and practice labs of radiographic positioning and procedures for each associated system or specialized area are studied in depth. The necessity of proper radiation protection practices are stressed for any given procedure studied or demonstrated. Presented concurrently with this course is **Image Critique and Identification**, which includes assessment of image quality (positioning and exposure) and identification of radiographic anatomy and pathologies.

### **RAD 240 - RADIOLOGIC PHYSICS**

This course is a comprehensive study of the principles of radiation physics that relate to x-ray production and emission. Content of this course is designed to establish a basic knowledge of atomic structure. Other topics include nature and characteristics of x-radiation; ionizing and non-ionizing radiation; the production of x-rays; the properties of x-rays and the fundamentals of x-ray photon interaction with matter as well as the terminology associated with these components.

### **RAD 250 – RADIATION BIOLOGY AND RADIATION PROTECTION**

Provides instruction on the principles of cell radiation interaction. Radiation effects on cells and factors affecting cell response are presented. Acute and chronic effects of radiation are discussed. Topics include: radiation detection and measurement; patient protection; personnel protection; absorbed dose equivalencies; agencies and regulations; introduction to radiation biology; cell anatomy, radiation/cell interaction; and effects of radiation.

### **RAD 260 – SENIOR REVIEW I**

This course is an intensive review of all courses taken during the 23-month Radiography program in order to prepare the student for the LRH Program Final Exam and the ARRT Certification Exam. As part of this course the student will complete an online review provided by Corectec.

### **RAD 261 – SENIOR REVIEW II**

This course is a continuation of Senior Review I and the use of Corectec. This course provides an in-class review of basic knowledge from previous coursework and helps students prepare for the ARRT national certification examinations for radiography and CT. To pass this course students must pass the LRH Program's Final Exam with a minimum score of 78%, a requirement to graduate from the Radiography Program.

### **RAD 270 – SPECIALIZED IMAGING MODALITIES**

The first section of this course provides a study of the principles and fundamentals of fluoroscopy, image intensification, and the radiographic equipment associated with these specialized imaging modalities. The second segment of this course is a study of specialized modalities to include Interventional Radiography; Nuclear Medicine; Magnetic Resonance Imaging; Radiation Therapy; Ultrasound; and Mammography.

### **MEDICAL TERMINOLOGY**

Medical Terminology is a prerequisite course, but it is integrated into and taught concurrently with Orientation to Radiologic Technology, Patient Care, and Anatomy, Physiology, and Radiographic Procedures I, II, III, & IV. This course includes terminology specific to anatomy, physiology and diseases of each system; body positioning and planes; prefixes and suffixes; and hospital terminology.

### **IMAGE IDENTIFICATION, CRITIQUE & PATHOLOGY**

Image Identification, Critique, and Pathology are not offered as separate courses, but are integrated into and taught concurrently with Orientation to Radiologic Technology and Anatomy, Physiology, and Radiographic Procedures I, II, III, & IV. The course includes extensive radiographic image presentations of pathologies related to each system and instruction in radiographic image identification of anatomy and assessment of image quality of all procedures as related to each system studied.

### **SENIOR PROJECT**

During the second year, each student is required to write a research paper on a subject related to radiation protection. Also, each student will prepare a free-standing exhibit depicting a new innovation in the radiologic sciences to be submitted for competition at the Florida Society of Radiologic Technologist (FSRT) conference.

## **CLINICAL COURSE DESCRIPTIONS**

### **RADC 110 - CLINICAL PRACTICUM I (Modules 1 & 2)**

This course involves the practical application of the subject matter taught in the classroom setting. Demonstration of knowledge and/or competence in various procedures or processes is required and is outlined in the clinical education handbook. Emphasis during this term includes the following:

- orientation rotations in the technical area
- orientation rotations in diagnostic imaging rooms
- radiographic/fluoroscopic equipment and accessories
- assessment of the patient to include basic vital functions
- emergency responses to various patient distresses
- implementation and use of proper body mechanics to move and/or transfer patients

### **RADC 120 - CLINICAL PRACTICUM II (Modules 3 & 4)**

This course is the practical application of subject matter taught in the classroom setting. Demonstration of knowledge and/or competence in various procedures or processes is required and is outlined in the clinical education handbook. Emphasis during this term includes the following:

- radiographic/fluoroscopic equipment and accessories
- advanced assessment of patient status, with the ability to respond appropriately to patient distress situations
- venipuncture
- radiography of the upper extremities, lower extremities, shoulder girdle, chest and abdomen
- bedside radiography of the extremities

### **RADC 130 - CLINICAL PRACTICUM III (Modules 5 & 6)**

This course is the practical application of subject matter taught in the classroom setting. Demonstration of knowledge and/or competence in various procedures or processes is required and is outlined in the clinical education handbook. Emphasis during this term includes the following:

- radiography of the pelvis and spine
- fluoroscopic procedures of the Gastrointestinal and Biliary Systems
- emergency department radiography of upper extremities, lower extremities, shoulder girdle, pelvis and spine
- bedside radiography of the chest, abdomen and extremities

### **RADC 140 - CLINICAL PRACTICUM IV (Modules 7 & 8)**

This course is the practical application of subject matter taught in the classroom setting. Demonstration of knowledge and/or competence in various procedures or processes is required and is outlined in the clinical education handbook. Emphasis during this term includes the following:

- fluoroscopic procedures of the Gastrointestinal and Biliary Systems
- emergency department and trauma services radiography of upper extremities, lower extremities, shoulder girdle, pelvis, spine, and bony thorax
- surgical radiographic procedures
- radiography of the skull and facial bones

### **RADC 210 - CLINICAL PRACTICUM V (Modules 9 & 10 or 11 & 12)**

This course is the practical application of subject matter taught in the classroom setting. Demonstration of knowledge and/or competence in various procedures or processes is required and is outlined in the clinical education handbook. Emphasis during this term includes the following:

- maintenance and review of skills in patient assessment, charting and patient education
- maintenance of skill in radiography of extremities, pelvis, shoulder girdle, spine, and bony thorax
- fluoroscopic procedures of the Gastrointestinal System, Urinary System, Biliary System, and Reproductive System
- surgical radiographic procedures
- radiography of the skull and facial bones
- advanced imaging modalities to include Ultrasound, Magnetic Resonance Imaging

### **RADC 220 - CLINICAL PRACTICUM VI (Modules 11 & 12 or 13 & 14)**

This course is the practical application of subject matter taught in the classroom setting. Demonstration of knowledge and/or competence in various procedures or processes is required and is outlined in the clinical education handbook. Emphasis during this term includes the following:

- maintenance and review of skills in patient assessment, charting and patient education
- maintenance of skill in radiography of extremities, pelvis, shoulder girdle, spine, and bony thorax
- surgical radiographic procedures
- radiography of the skull and facial bones
- advanced imaging modalities to include Ultrasound, Magnetic Resonance Imaging, Vascular and Interventional Imaging, Nuclear Medicine, and Radiation Therapy

### **RADC 230 - CLINICAL PRACTICUM VII (Modules 13 & 14 or 15 & 16)**

This course is the practical application of subject matter taught in the classroom setting. Demonstration of knowledge and/or competence in various procedures or processes is required and is outlined in the clinical education handbook. Emphasis during this term includes the following:

- radiography of the skull and facial bones
- advanced imaging modalities to include Ultrasound, Magnetic Resonance Imaging, Vascular and Interventional Imaging, Nuclear Medicine, and Radiation Therapy
- surgical radiographic procedures
- maintenance of previous competencies passed
- final competency exams
- completion of all competencies required by the Radiography Program

### **RADC 240 - CLINICAL PRACTICUM VIII (2 modules – Modules 9-14)**

This course is the practical application of subject matter taught in the classroom setting. Demonstration of knowledge and/or competence in various procedures or processes is required and is outlined in the clinical education handbook. Emphasis during this term includes the following:

- Computed Tomography equipment and accessories
- CT imaging and procedures
- Emergency Department CT imaging and procedures
- CT guided fluoro procedures
- Advanced assessment of patient status, with the ability to respond appropriately to patient distress situations
- Completion of all CT competencies required by the Radiography Program to include 80% of the 125 ARRT competencies



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