



Lakeland Regional **Health**<sup>®</sup>

# SCHOOL OF RADIOLOGIC TECHNOLOGY



1895



2019

**2019** STUDENT  
HANDBOOK



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### **DISCLAIMER CLAUSE:**

**The Radiography Program at LRH reserves the right to make changes in the regulations and policies announced in this handbook as circumstances arise.**

**If changes in this handbook are required during the academic year, the student will be given formal notice of those changes and be asked to verify by signature that the required changes were (read) received and understood.**

**The provisions of this handbook are not to be regarded as an irrevocable contract between the student and the Radiography School. The Radiography School reserves the right to make and designate the effective date of changes in school policies and other regulations at any time such changes are considered to be desirable or necessary.**

# LAKELAND REGIONAL HEALTH MEDICAL CENTER SCHOOL OF RADIOLOGIC TECHNOLOGY MISSION / GOALS AND OUTCOMES

## 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 that 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 and Student Learning Outcomes

- Goal 1. Students will demonstrate competence for successful practice as entry level radiographers.
- Students will utilize proper radiation practices on all exams.
  - Students will show evidence of proper manual technique exposure factors.
  - Students will demonstrate optimal positioning skills.
  - Graduates will be prepared and competent in their employment.
  - Employers are satisfied with entry level graduates overall performance skills.
- Goal 2. Students will develop and demonstrate growth, professional ethics, and characteristics of a healthcare practitioner.
- Students will consistently demonstrate ethical values.
  - Students will demonstrate professional work ethics.
  - Students understand the importance of lifelong learning.
- Goal 3. Students will demonstrate abilities in effective communication with staff and patients.
- Students will be able to utilize effective oral communication in the clinical setting.
  - Students will utilize effective oral communication with Radiology Department Leadership.
  - Students will use effective written communication in the classroom setting.
- Goal 4. Students will apply critical thinking and problem solving skills necessary for professional practice.
- Students will be able to critique images to recognize diagnostic quality.
  - Students are able to modify technique and positioning for non-routine patients.
  - Students will use critical thinking skills to analyze ALARA principles. (Oral Presentation)
  - Students will be able to review CT procedure orders and correlate the appropriateness criteria for patient's pathology.



# Lakeland Regional Health<sup>®</sup>

## **VISION & MISSION STATEMENTS**

### **Our Vision**

Together, our Promise is YOUR HEALTH.

### **Our Core Purpose/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 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*



YEAR 1	YEAR 2
Quarter 1 <u>July 9 - September 21, 2018</u>  Holiday: September 3, 2018  Quarter Break: September 22 - September 30, 2018	Quarter 5 <u>July 8 - September 20, 2019</u>  Holiday: September 2, 2019  Quarter Break: September 21 - 29, 2019
Quarter 2 <u>October 1 - December 21, 2018</u>  Holiday: November 22 & 23, 2018  Quarter Break: December 22, 2018 - January 6, 2019	Quarter 6 <u>September 30 - December 20, 2019</u>  Holiday: November 28 & 29, 2019  Quarter Break: December 21, 2019 - January 5, 2020
Quarter 3 <u>January 7 - March 29, 2019</u>    Quarter Break: March 30 - April 7, 2019	Quarter 7 <u>January 6 - March 27, 2020</u>    Quarter Break: March 28 - April 5, 2020
Quarter 4 <u>April 8 - June 14, 2019</u>  Holiday: April 19, 2019 May 27, 2019  Quarter Break: June 15 - July 7, 2019	Quarter 8 <u>April 6 - June 5, 2020</u>  Holiday: April 10, 2020 May 25, 2020  Graduation: June 4, 2020



YEAR 1	YEAR 2
<p><b>Quarter 1</b> <u>July 8 - September 20, 2019</u></p> <p>Holiday: September 2, 2019</p> <p>Quarter Break: September 21 - 29, 2019</p>	<p><b>Quarter 5</b> <u>July 6 - September 18, 2020</u></p> <p>Holiday: September 7, 2020</p> <p>Quarter Break: September 19 - 27, 2020</p>
<p><b>Quarter 2</b> <u>September 30 - December 20, 2019</u></p> <p>Holiday: November 28 &amp; 29, 2019</p> <p>Quarter Break: December 21, 2019 - January 5, 2020</p>	<p><b>Quarter 6</b> <u>September 28 - December 18, 2020</u></p> <p>Holiday: November 26 &amp; 27, 2020</p> <p>Quarter Break: December 19, 2020 - January 3, 2021</p>
<p><b>Quarter 3</b> <u>January 6 - March 27, 2020</u></p> <p>Quarter Break: March 28 - April 5, 2020</p>	<p><b>Quarter 7</b> <u>January 4 - March 26, 2021</u></p> <p>Quarter Break: March 27 - April 4, 2021</p>
<p><b>Quarter 4</b> <u>April 6 - June 16, 2020</u></p> <p>Holiday: April 10, 2020 May 25, 2020</p> <p>Quarter Break: June 17 - July 5, 2020</p>	<p><b>Quarter 8</b> <u>April 5 - June 4, 2021</u></p> <p>Holiday: May 31, 2021</p> <p>Graduation: June 3, 2021</p>



# LAKELAND REGIONAL HEALTH MEDICAL CENTER

## SCHOOL OF RADIOLOGIC TECHNOLOGY

### HANDBOOK OF RULES AND REGULATIONS

#### Professional Behavior Expectations:

LRH School of Radiologic Technology will prepare you for entry into the health care profession. Certain standards of behavior and conduct will be expected of all students in both the classroom and the clinical area. Students will be expected to keep commitments, to be punctual and prepared for all learning experiences, and to actively participate in the learning process. Appropriate behavior is a requirement for successful completion of this program as outlined in the handbook.

#### Program Expectations

The following is a list of policies and guidelines for students of the Radiologic Technology Program at Lakeland Regional Health. Please read this material carefully as you will be held responsible for the information contained in this handbook. By signing the acknowledgment page, you are agreeing to adhere to all rules, regulations, and policies of the School. Additionally, you will be scheduled for a general hospital orientation to acquaint you with the hospital's policies and guidelines, failure to attend this orientation will void your acceptance into the program. During your tenure here as a student radiographer, you will be responsible for following all policies and requirements of Lakeland Regional Health Medical Center. All LRH policies can be found on the hospital's intranet.

## GENERAL POLICIES

- I. Health Related Policies
  - A. Pre-enrollment Physical, Drug, Tobacco Testing and Background Screening
    1. Prior to final acceptance into the program, students accepted by the interview committee must undergo a background screening provided by LRH and pass the hospital's physical and drug test given by the Employee Health Department at Lakeland Regional Health. This is a \$200.00 non-refundable fee.
  - B. Hospitalization Insurance
    1. All students must carry some type of hospitalization / medical insurance in order to remain in the program. You **must** provide proof of hospitalization insurance before classes start.
  - C. Health Care and Standard Precautions
    1. 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.
    2. The hospital assumes no responsibility for free health care for any student.
      - a. The Employee Health Department will refer students to their personal physician for any non-program related health care needs.
    3. Students receive instruction in Standard Precautions, which are the guidelines set forth by Lakeland Regional Health in regard to patient/staff disease and precautions.
    4. All hospital policies regarding standard precautions are located on the hospital's intranet and can be accessed via the hospital's computer system.
  - D. Personal Counseling
    1. LRH Chaplin's Office, 1<sup>st</sup> floor, 863-687-1247
    2. Peace River Center – 24 hour crisis line 863-519-3744; outpatient services 863-248-3311  
[www.peacerivercenter.org](http://www.peacerivercenter.org)

## II. Student Services and Learning Resources

- A. The school has the following student services and learning resources available:
1. Dedicated classroom for the radiography program
  2. Use of laptops in the classroom
  3. Learning/resource lab for instructional purposes / computer lab and internet access
  4. Access to the hospital's radiographic rooms for demonstration and practice labs
  5. Access to the hospital's medical library, computer lab, and Internet services for research assignments or projects
  6. Use of the school's imaging phantoms and anatomic models
  7. Access to numerous self-study audiovisual and computer aided instructional materials covering all disciplines of Radiologic Technology.
  8. Tutoring services – when requested and scheduled.
  9. Access to the hospital's Employee Health Department for medical testing, immunizations, illnesses, or injuries related to the student's clinical assignments while in the radiography program.
    - a. Students will be referred to their personal physician for any other medically related needs.
  10. The same discount as employees when using the hospital's cafeteria.
  11. Free parking provided by the hospital and all clinical sites.

## III. Parking

- A. All students must obtain a hospital issued parking permit if they drive a car to the hospital for clinical rotations or class. There is no fee for obtaining this permit.
1. Students are responsible for parking in the designated parking lot for any given clinical rotation.
    - a. Students are given a map of the employee and student parking lots and are shown the proper parking area for any given clinical assignment.
    - b. Students may only park in either parking garage on the 2 upper levels when on the 3:30pm – 9:30pm shift
  2. The employee parking sticker must be placed on the left rear area of the car.
- B. Violation of parking rules can lead to fines, suspension and/or dismissal from the radiography program.

## IV. Attendance

- A. At LRH students will clock in and out on Trajecsys on a computer at their clinical site.
- B. Attendance records are kept up to date and accurate on each individual student. The following are indicated on the attendance records:
1. Attendance hours
  2. Personal Days
  3. Class absences
  4. Make-up time
- C. As classroom hours are incorporated into the 38-hour per week time frame, class attendance is mandatory. You will find possible clinical rotations and clinical hours in the Clinical Handbook.
- D. Lunch, Breaks, and Lounge Privileges
1. 30 minutes is allowed for lunch and is scheduled by the area supervisor.
    - a. Hospital I.D. badges are required to receive employee prices in the cafeteria.
    - b. Students leaving the hospital grounds for lunch must notify their assigned staff and program official. Students must clock out and be back on time (within the 30-minute timeframe) for their clinical assignment or class if they choose to leave the clinical site for lunch.
  2. Breaks are granted at the discretion of the clinical area supervisor and are usually 15 minutes in length.
  3. Lakeland Regional Health System is a smoke free organization; therefore no smoking is allowed inside or on the grounds of the hospital or other campuses (including in your car).
  4. Eating is allowed in the designated lounge areas of the Radiology department. Students and staff share the responsibility of keeping this area clean.
  5. All drinks must be labeled and in designated drink parks.
- E. Time Off – School Breaks, Holiday and Personal Time
1. School Breaks – Students are not scheduled for any clinical rotations or didactic classes during the quarter breaks. 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. Quarter breaks are scheduled so students will have time to plan events so they will not miss any didactic or clinical education time.

2. Holidays – Students are given 6 additional holidays per year which are as follows:
  - Good Friday
  - Memorial Day
  - July 4<sup>th</sup>
  - Labor Day
  - Thursday and Friday of the week of Thanksgiving
  - a. Christmas Eve, Christmas Day, New Year’s Eve, and New Year’s Day are recognized school holidays that fall during the standard quarter breaks. Students that are making up clinical time during the quarter breaks may not make up time on recognized hospital holidays.
  
3. Personal time – Students are allotted 48 hours of personal time, per year during the 23-month program (96 personal hours total). These days are reserved for illness or for unexpected events that arise making an absence necessary for a given day.
  - a. Up to five consecutive days missed due to illness or injury will count as one personal day (8 hours) if the student has a written excuse for the illness or injury from their personal physician. This may be used only once per academic year. All other absences will be counted as the actual time missed. Surgery or an extended illness will be considered on an individual basis.
  - b. If personal time is needed for use other than illness the time is to be requested a minimum of 24 hours in advance.
  - c. If a student voluntarily requests clinical time beyond their regularly scheduled hours those hours will not be added to their personal timebank.
  - d. Any student unable to report for clinical practice **must** do the following:
    1. Notify the department supervisor a minimum of 30 minutes prior to scheduled start time.
    2. Notify the Program Director and the Clinical Coordinator a minimum of 30 minutes by email prior to the start time (this can be done through Trajecsys). No texting or phone message except in the case of an emergency.
  - e. Any time missed the day before or after a holiday or quarter break will have double the hours used deducted from their timebank.
  - f. You are **required** to attend your senior’s graduation as well as your own; you may not use personal time for either event.
  
4. If the allotted 48 personal hours have been used within a given year, and the student misses any additional time, the time must be made up during the next scheduled quarter break.
5. Absences, whether excused or unexcused, will not alter the requirements of any given clinical module.
6. Excessive unscheduled absences (more than two per month) can lead to dismissal from the Program.
7. VA students will not receive extended benefits for any clinical make-up hours that are completed after the scheduled program completion date. (*Benefits will terminate at the time of the scheduled program completion date.*)
8. Veterans' benefits will be terminated for any VA student exceeding three (3) **unexcused** absences in a calendar month. Excused absences will be granted for extenuating circumstances and will be substantiated by entry in the student's file.

F. Tardiness

1. Students are expected to clock in on Trajecsys by the assigned clinical start time. Clock in times later than 1 minute past the assigned start time is considered late / tardy.
  - a. Refer to the Disciplinary Policy for consequences of excessive Tardiness.
2. Any student that determines he or she will be late must do the following:
  - a. Notify the department supervisor a minimum of 30 minutes prior to the scheduled start time that he/she will be late and the estimated time of arrival, if possible.
  - b. Notify the Program Director and the Clinical Coordinator a minimum of 30 minutes, by email, prior to the start time (this can be done through Trajecsys). No texting or phone message except in the case of an emergency.
3. Program officials are aware that there may be extenuating circumstances when notification prior to the scheduled start time is not possible. These circumstances will be considered on an individual basis.

G. Inclement Weather

1. There are no allotted inclement weather days. Students are expected to use good judgement and attempt to arrive at their assigned clinical site without jeopardizing their health and safety.
2. Program faculty may enact the inclement weather policy and students will be given up to two (2) hours past their scheduled arrival time and will not be considered tardy. Students must still notify the clinical instructor and program officials 30 minutes prior to their scheduled arrival time if they expect to be late or absent.
3. In the event of extreme severe weather the program officials may close the school, cancelling classes and clinical rotations. The program officials will text all students for school closures. It is each student's responsibility to call their clinical instructor if they expect to be late or absent.

V. Dress Code

A. Radiography Program Uniform

1. Royal blue uniform/scrub pants and white uniform/scrub tops.
  - a. Must be clean and ironed.
  - b. Uniforms should not be too tightly fitted.
2. The embroidered logo is done at UniformConnection:
  - a. Address: 2123 E Edgewood Drive  
Lakeland, FL33803  
Telephone: 863 667-2682
  - b. Inform them that you are a student in the LRH Radiography Program and they will assist you.
  - b. The LRH logo and "Radiography Program" will be on the right front of the scrub top.
  - e. The cost of the required embroidering is approximately \$7.00 per top, plus tax.
3. White undershirt / tee shirt to be worn under the uniform / scrub top
  - a. Must be totally white with no logos, etc.
  - b. If short sleeves the undershirt cannot extend lower than the sleeves of the uniform top.
  - c. You may wear long sleeves totally white t-shirt under scrub top during cold months.
4. Black shoes with black hose or blacksocks.
  - a. Shoes are to be clean and polished.
  - b. Shoes are to be totally black (i.e. no colored logos, stripes, or embellishments)
  - c. **Shoes must have closed toes and a closed heel.**
5. Optional: White lab coat.

If you choose to wear a lab coat, you must have the LRH logo and "Radiography Program" embroidered on the right front of the lab coat. No sweaters, sweatshirts or hoodies etc. are permitted for clinical or didactic classes.
6. LRH OR scrubs will be worn only if the student is scheduled in portables/surgery. Students are to change back into their school uniform prior to attending class. An exception will be made should the student's uniform become soiled by bodily fluids.

B. Jewelry and Tattoos

The following is the **only** jewelry permitted

1. Maximum of 2 rings
2. A watch with a second hand
3. One medic alert necklace or medic alert bracelet is allowed
4. Earrings - Only small post ball type earrings may be worn. (No hoops or dangles of any kind will be allowed.) If wearing earrings, only one pair (one in each ear) of earrings is allowed.
5. Other than pierced ears, no other body piercing jewelry may be worn.
6. Tattoos must not be offensive and are to be covered whenever possible by clothing or hosiery.

C. Hair

1. Hair must be neatly styled. **All hair** must be pulled back away from face (including bangs) when in uniform.
  - a. Hair that is touching the top of the shoulders or longer must be pulled back or put up.

- b. Bangs must be above eyebrows or pulled back.
  - c. Only white, royal blue, or dark colored (brown or black) clips or bands are to be used to secure hair.
  - d. Extreme hair styles or extreme hair coloring are not allowed
2. Beards
- a. Closely trimmed beard, if applicable.
  - c. Clean shaven if student does not have a beard.

D. Make-up, perfumes or colognes

- 1. Students should use make-up with discretion. No heavy or extreme make-up is allowed.
- 2. **No perfumes or colognes can be worn while on clinical assignments.**

E. Nails

- 1. Nails must be no longer than ¼ inch above the tip of the finger, and kept clean.
- 2. Only clear or very light shades of nail polish may be worn.
- 3. **No artificial nails or enhancement product are allowed. This includes but is not limited to acrylic, gel nails, wraps, extenders, overlays, tips, tapes, shellac, fingernail and nail-piercing jewelry.**

F. No chewing gum, drinks or food are allowed in patient care areas.

G. Program uniform and I.D. badges must be worn while on the hospital premises or any clinical site, for any program related activity.

H. Badges will be worn on left shoulder.

VI. Electronic Devices Policy

Cell phones, watches and other communication devices are prohibited from use in classrooms, laboratories, clinical areas, institution hallways, and libraries, unless authorized by the appropriate faculty or staff. Devices must be silenced and may not be visible in the classroom or in the clinical area. Students are not to leave during class or clinical education to answer or use their cell phone.

VII. Disciplinary Actions

A. Probation

- 1. Students are evaluated every Quarter. If a student is placed on academic or clinical probation, the probation will last (a minimum) from one evaluation period until the next.
- 2. The purpose of probation is to allow the student time to improve one or more of the following:
  - a. grades
  - b. clinical performance
  - c. record keeping: staff evaluations / patient records
- 3. Probation may also act as a disciplinary action for a minor breach of rules.
- 4. Should the incident that causes probation persist into the next evaluation period, the student will be disciplined in one of the following manners:
  - a. Dismissal
  - b. Delay of Graduation
  - c. Suspension: time missed is to be made up after the twenty-three month educational program

B. Dismissal or Suspension

- 1. The School has the right to dismiss or suspend a student from the Program for the following reasons:
  - a. Dishonest acts of any nature
    - (1) Cheating
    - (2) False Witness
    - (3) Concealment of acts that could result in poor patient care or avoidable overexposure to patients.
  - b. Excessive absences
  - c. Grade percentage below 78%
  - d. Abusing patient rights including confidentiality of information
  - e. Theft
  - f. Drug abuse
  - g. Persistent unprofessional behavior and/or disrespectful attitude toward patients, staff, physicians, or fellow students
  - h. Antagonistic attitude giving rise to student behavior problem

- i. Disregard for policies and rules of the hospital and School of Radiologic Technology.
- j. Disruptive classroom habits. (*i.e. talking, tardiness, sleeping*)

C. Honor Code

1. Students are responsible for the honest conduct of themselves and their fellow students in the didactic and clinical
2. If a student becomes aware of dishonesty and does not report that dishonesty, that student is equally guilty.
  - a. See Section B - Dismissal or Suspension

VIII. Disciplinary Policy

This policy is established to provide guidelines for consistent disciplinary actions due to breeches in Program Rules and/or Policies. Consequences for breeches of Program rules and policies are divided into four levels and are as follows:

A. **LEVEL I**

Students will be issued an incident report for up to three occurrences per year for a combination of the following breeches of Program Rules and/or Policies:

1. Breech of dress code
2. Tardy to class or clinical practice assignment without an acceptable due notice.
3. Failure to follow proper notification protocol when calling in to miss clinical practice and/or class.
4. Failure to be prepared for a clinical practice assignment. (No RT and LT lead markers, no technique notebook on person, or not wearing appropriate radiation monitoring badge)
5. Failure to respond to or sign and return notices in a timely manner
6. Cell phone present in clinical setting.
7. Cell phone and or Apple watches (or similar devices with internet, phone, photo etc. capabilities) not in locker, backpack, purse etc. when in the classroom and not on silent
8. Leaving assigned clinical practice area without permission
9. Antagonistic, insubordinate, or disrespectful attitude toward the patient, school officials, staff, supervisors or fellow students.
10. Unprepared for class
11. Sleeping in class or clinical area.
12. Parking violation
13. Missing or not prepared for the scheduled procedures check-off session
14. Failure to follow school or hospital policies
15. Failure to clock in or out on Trajecsys

B. **LEVEL II**

Students will be given at a minimum of a 3 day suspension for the following breeches of Program Rules and/or Policies:

1. More than three occurrences per year of LEVEL I breeches of Program Rules and/or Policies during each academic year.
2. Unauthorized changing of the clinical practice assignment schedule.
3. Not following proper radiation protection practices for self and/or patient
4. Unethical behavior or practice when on clinical practice rotation
5. Holding an image receptor during any radiographic procedure

C. **LEVEL III**

Students will be given at a minimum a one-week suspension for the following breeches of Program Rules and/or Policies:

1. Exceeding three occurrences (of the same rule or infraction) listed in Level II during each academic year.
2. Any action that would be a potential danger to the safety of a patient, staff, or fellow student.

**D. LEVEL IV**

Students will be dismissed from the program for any of the following breeches of Program Rules and/or Policies.

1. More than one occurrence of a LEVEL III breach of Program Rules and/or Policies during each academic year.
2. Cheating, lying, or falsification of records
3. Evidence of drug or alcohol abuse while on the premises of any clinical practice assignment or in the classroom
4. Possession of a firearm or any weapon while on the premises of any clinical practice assignment or in the classroom.
5. Wanton disregard of established patient care practices or any established standard of care.

**IX. Grievance Procedure**

A. All students are given an Organizational Chart of Lakeland Regional Health, the Radiology Department and a copy of the program's grievance procedure.

1. The organizational charts are discussed with all students during Orientation

B. The Grievance Procedure for the radiography program is as follows:

1. Any student wishing to file a grievance must give written notice to the Program Director within three days of the occurrence, describing the occurrence and their grievance issue concerning the occurrence.
2. Within three business days of receiving the grievance, the Program Director will give a written response to the student's grievance issue. If the matter is not resolved to the student's satisfaction, the student may:
3. Ask for consultation with the Director of Radiology. This request will be in writing and be sent or given to the Program Director and the Director of Radiology within three business days of the prior response. A consultation will be scheduled within one week of the delivered request and a response to the issue will be given to the student within three working days post conference. If the matter is not resolved to the satisfaction of the student at this level, the student may:
4. Ask for a consultation with the Hospital Associate Vice-President over the Radiology Department. This request will be in writing and be sent or given to the Program Director, the Director of Radiology, and the Associate Vice-President within three business days of the prior response. The consultation will be scheduled within two weeks of the delivered request and a response to the issue will be given to the student within two weeks post conference. All decisions made and set forth at this level are final.

X. Pregnancy Policy

- A. A declared pregnant woman “DPW” whose duties involve working in a radiation environment will not, during gestation, knowingly be exposed to ionizing radiation exceeding 5.0 mSv (500 millirem) during gestation. Although declaring pregnancy is a voluntary action, the program officials recommend that the pregnant student officially declare her status so that proper precautions can be taken to protect the fetus. If a student radiographer opts to declare her pregnancy she must complete the Declaration of Pregnancy Form (Appendix A) and submit it to the Program Director. The Program Director will complete the appropriate section and send the Radiation Safety Office (RSO) the notification form. The RSO will return the completed form to the Program Director’s office. The completed form will be kept in the student’s file. The Program Director will arrange for the student to meet with the RSO if she wishes to discuss any concerns regarding fetal exposure.

If a student does declare pregnancy, the following options will be offered to the pregnant radiography student:

1. The student may continue in the program with no modifications in clinical practice assignments. The student will assume any risk associated with exposure to ionizing radiation as long as the total exposure received does not exceed 5.0 mSv (500 millirem) or .05 mSv per month.

Should the student elect this option and subsequently experience difficulties relating to the pregnancy that necessitates missing more than 15 consecutive clinical practice assignments or ten consecutive didactic classes, the student will be required to take a leave of absence. The student will have the option to rejoin the program at the same time the following year.

2. The student may continue in the program with slight modifications in the clinical practice assignments. During the first three months of the pregnancy, the student will **not** be assigned clinically to any area involving fluoroscopic procedures, but will be assigned to alternate clinical areas. This may or may not involve additional clinical time over the twenty-three month program. The student must complete all clinical modules and competencies prior to receiving a certificate of graduation.

Should the student elect this option and subsequently experience difficulties relating to the pregnancy that necessitates missing more than 15 consecutive clinical practice assignments or ten consecutive didactic classes, the student will be required to take a leave of absence. The student will have the option to rejoin the program at the same time the following year.

3. The student may elect to continue only the didactic portion of the program throughout her pregnancy and up to three months post-partum and then resume the clinical practice assignments. If this option is taken, the student must complete all required clinical modules, competencies, and clinical practice assignments prior to receiving a certificate of graduation.

Should a declared pregnant student radiographer elect to continue the didactic portion of the program and subsequently experience difficulties relating to the pregnancy that necessitates missing more than ten consecutive didactic classes, the student will be required to take a leave of absence. The student will have the option to rejoin the program at the same time the following year.

4. The student may elect to take a leave of absence from the program and rejoin the program at the same time the following year.

- B. The student may un-declare her pregnancy in writing or elect to not declare her pregnancy in writing. If pregnancy is not declared or undeclared, the student will assume full liability of any consequences of being assigned through the various clinical practice assignments as no accommodations can be made to protect the fetus without the written declaration. Additionally, the student will be subject to the school’s attendance policy. Although it is both procedure and practice of this Program to offer the utmost in radiation protection to the students, neither the School of Radiologic Technology nor Lakeland Regional Health will assume liability of the mother or child in case of pregnancy. Information regarding a student leaving due to pregnancy will be held in confidence in accordance with applicable privacy laws.



XI. Dissemination of Information

- A. Communication of information will be by text message, email, Trajecsys, student mail box or bulletin board: Items posted on the bulletin board may include the following:
1. Clinical and room rotation schedules
  2. Listing of competencies completed by each student
  3. Class lesson schedule and assignments
  4. Class or clinical announcements
  5. Employment or continuing educational opportunities
- B. Students will receive an email notification or text message of changes. It is the student's responsibility to check their messages daily to be aware of any changes in schedules or assignments; email is one of the main sources of instructor - student communication.
- C. Each student is assigned a "mail slot" located in the school area. Program officials use these mail slots to communicate notices, schedule changes, or any other non-confidential communications to the student.
- D. Students will receive written notice or any policy changes.
1. Signed acknowledgement of policy changes will be kept in an electronic file.

XII. First Year and Graduation Requirements

- A. First Year Requirements – In order to progress to the second year of the program, students must:
1. Successfully complete all first year didactic and clinical courses
  2. Pass a comprehensive first year final with a minimum score of 78%.
- B. Second Year Requirements – In order to graduate from the program students must:
1. Successfully complete all second year didactic and clinical courses
  2. Complete and turn in senior projects
  3. Pass a final examination covering all subject matter covered during the 23 month program with a minimum score of 78%.
  4. All requirements must be completed no later than 14 days after the scheduled graduation date.
- C. Course Repeat Policy
1. From time to time, a student does poorly in their didactic and/or clinical education, but demonstrates the desire to stay in the program. If program officials determine that the student can succeed with more time in the program and if there is space available, the student may be allowed to repeat the first or second year of the Radiologic Technology Educational Program.
  2. The final decision for re-entry into the Program will be left to the discretion of the Program officials.
  3. Any student failing a didactic course with a grade of 77% or lower will have the opportunity to voluntarily retake the course. In order to receive a passing grade for the course unit tests and final exam for repeated course will be taken concurrently with their regular course studies.
    - a. If the unit tests and final exam are passed with a 78% or better, the grade of 78% will be recorded in the gradebook. If a 78% or better is not scored on the unit tests or final exam, the actual grade will be recorded in the gradebook.
    - b. The final grade for the course will consist of the unit tests and the final exam scores and must be a minimum grade of 78% to successfully complete the course.
    - c. The recorded grade for the successful completion of the course repeated will be 78%.
    - d. No repeat attempt will be given for the comprehensive final exam. If the student does not pass the final exam with at least a 78%, the grade received on the final exam will be recorded.
  4. There will be a tuition charge for this course of \$415.00 to be paid prior to starting the course.
  5. Failure to repeat a course or not successfully completing a repeated course will result in dismissal from the program.
  6. No student will be allowed to repeat more than 2 courses.
  7. If a student receiving Veterans benefits fails the first or second year, they will be terminated from the Radiography program for pay purposes. Should the student desire to repeat the first or second year of the Radiologic Technology educational program, they must have the approval of the Program Director and must do so without Veterans benefits. After successful completion of the first quarter, they may reapply for Veterans benefits. Each case will be individually assessed.

- D. ARRT Registry Application
1. All senior students will make application to the American Registry of Radiologic Technologists (ARRT) to write the ARRT examination by March 1<sup>st</sup> of their senior year.
    - a. Unless all program requirements have been met, a student will not be eligible to take the ARRT examination.
  2. **Please note that the State of Florida and the American Registry of Radiologic Technologists (ARRT) application processes include inquiry concerning conviction of a felony or a misdemeanor (including pleas of guilty, pleas of nolo contendere, withheld adjudication, or suspended sentence). Some prior criminal history may preclude an individual from being eligible to take the ARRT exam or obtain a license from the State of Florida. If you have any concerns regarding this matter, a pre-application process is available to determine your eligibility. You may contact the American Registry at (651) 687-0048 or at [www.arrt.org](http://www.arrt.org) and Florida Department of Health at (850) 245-4266 or <http://www.doh.state.fl.us/environment/radiation/index.html> for more information regarding this matter.**
  3. **It is the student's responsibility to ensure that they meet all of the requirements necessary to take the ARRT exam and obtain a Florida license.**

XIII. Student Placement Service

- A. No placement service is available, however, any notification received announcing job openings are posted on the student bulletin board.
1. Program officials will provide counseling assistance as students seek employment opportunities prior to graduation.
  2. Prior to graduation students meet with a hospital recruiter and leadership of the radiology department for an in service on interviewing skills and resume building.
  3. Students will have the opportunity to experience a mock interview with leadership.
  4. Students will be granted one clinical day to attend a job fair or interview during the last quarter of their second year, if available.

XIV. Students Privacy Rights

- A. All rights of student privacy are strictly adhered to by program officials and are in accordance to all applicable state and national statutes.
1. Individual records are kept on each student and any student may see their own individual accessible records upon written request.
    - a. Students desiring to view their records must schedule a time to view the records with the program officials.
  2. Any request for release of records must be made in writing to the radiography program officials.
    - a. The request must include student's name, Social Security number, dates of attendance, address of where the records are to be sent, and signature of the student or graduate.

XV. Tuition and Fees

- A. Students are required to pay tuition, by check, money order, or credit card in the amount of \$675.00 to LRH each quarter. Payment of tuition not made at this time will incur a late fee of \$100.00. If payment is not made by the first day of the quarter students will not be able to attend their assigned clinical rotation or class. Time missed will be deducted from their time bank at double the time missed. Repeat course fee of \$415.00 is due prior to retaking the course. Cost of tuition is subject to change.
- B. Students must purchase required textbooks. Information regarding ordering procedures will be sent to students accepted into the program at least 1 month prior to the start date. Total cost of texts will vary according to the number of texts required per year of enrollment.
1. Students may purchase used textbooks. However all workbooks **must be** in new condition.
  2. Students have the option of selling their textbooks to new students if the same edition is being used.
- C. Additional fees for supplies and memberships in professional affiliations will be assessed prior to the beginning of the first and second year of the program.

- D. Quarter 7 & 8 *CORECTEC'S On-Line Registry Review Course* current fee of \$80.00 (subject to change).
- E. The student will also be responsible for application fees for the American Registry of Radiologic Technology (ARRT) and the Florida Department of Health certification and registration.
  - 1. ARRT application fee: \$200.00
  - 2. Florida DOH application fee: \$50.00
- F. Title IV Financial Aid is **not** available at LRH School of Radiologic Technology. 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. 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 is 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).

XVI. Refund Policy

- A. Tuition:  
Students withdrawing from the Radiography Program will have tuition refunded as follows:
 

1 <sup>st</sup> week or class	50% reimbursement
After 1 <sup>st</sup> week of class	0% reimbursement
- B. Miscellaneous: Advanced payment of required fees that have not been used will be refunded.

XVII. Transfer of Credit

- A. Students applying for the program with prior credit(s) from another JRCERT accredited program in Radiologic Technology (who left in good standing) will be considered on an individual basis.
  - 1. For advanced placement into the program, the following considerations will be applied:
    - a. The current class size. If the class the applicant is wishing to transfer into is at capacity, no consideration can be granted to the applicant.
    - b. Testing results. The student must pass the first year final and meet first year clinical competency requirements to be placed into thesecond year class.
    - c. Course compatibility. The course offerings at the previous institution must be able to be matched to the program's course offerings so that proper transfer of credit can be awarded.
    - d. Student information. Number of courses completed, clinical competency records, student's GPA, and faculty recommendations from the prior program attended will be evaluated.
    - e. A.S., A.A degree or higher is required if applicant does not qualify for articulation/affiliation agreement at PSC, HCC, VC or Clarion University.
  - 2. The transfer student may be required to repeat all or some of the courses previously taken based on testing results.
  - 3. Any VA student that has 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.

XVIII. JRCERT Complaint Resolution Policy

The LRH radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). To maintain accreditation the program must stay in compliance with the **Standards for an Accredited Educational Program in Radiologic Sciences**. Standards can be found at: <http://www.jrcert.org/programs-faculty/jrcert-standards/>

The Federal Higher Education Act of 1965, as amended, provides that a student, graduate, faculty or any other individual who believes he or she has been aggrieved by an educational program or institution has the right to submit documented allegation(s) to the agency accrediting the institution or program.

The JRCERT recognized by the United States Department of Education for the accreditation of radiography and radiation therapy educational programs investigates allegation(s) submitted, in writing, signed by any individual with reason to believe that an accredited program has acted contrary to **Standards for an Accredited Educational Program in Radiologic Sciences** or that conditions at the program appear to jeopardize the quality of instruction or the general welfare of its students.

A. Process

1. The individual should first attempt to resolve the complaint directly with program or institution officials through the program established grievance policy.
2. If the individual is unable to resolve the complaint via the grievance procedure or believes that the concerns have not been properly addressed, he or she may contact the JRCERT to request an Allegations Reporting Form.  
Chief Executive Officer  
Joint Review Committee on Education in Radiologic Technology  
20 North Wacker Drive, Suite 2850  
Chicago, Illinois 60606-3182  
Phone: 312-704-5300  
Fax: 312-704-5304  
E-mail: [mail@jrcert.org](mailto:mail@jrcert.org)
3. The Allegations Reporting Form must be completed, signed, and sent to the above address. Incomplete or unsigned forms will not be considered. The completed form should indicate the resolution being sought and any efforts that have been made to resolve the complaint through program's grievance procedure.
4. Submitted allegations must relate to the **Standards for an Accredited Educational Program in Radiologic Sciences**. The JRCERT will not divulge the identity of the complainant(s) unless required to do so through legal process. A copy of the JRCERT standards can be found at <http://www.jrcert.org/programs-faculty/jrcert-standards/>.
5. If program officials received notification from the JRCERT office of a submitted allegation, the program will submit a response to the JRCERT office within the specified timeframe as established by the JRCERT office.
  - a. The response to the JRCERT office will contain rationale and supporting documentation regarding the resolution the program deems appropriate to the allegation.
6. A record of all allegations or complaints and their resolutions will be maintained by the program in a secured location in the Program Director's office.

XIX. Hospital and School Rights

- A. All rights herein designated are reserved by the Hospital and the School of Radiologic Technology. The School also reserves the right to make any changes deemed necessary for the benefit of the Program or to accommodate unforeseen events that may occur concerning courses, faculty, or requirements.
1. Students will receive written notice of any policy changes.
  2. Students will sign an acknowledgement form that they have received and read the policy change. These signed acknowledgements will be kept in an electronic file.

## Classroom Expectations

Each class provides a valuable opportunity for learning. A patient's health and well-being depend on the implementation of knowledge acquired in the learning process. Since there is little room for error, there is little room for absence. Attendance is expected at all classes. Should an absence be unavoidable, it is the student's responsibility to contact faculty and make up missed work.

Active participation is necessary to acquire the knowledge needed to safely care for patients. It is important to listen attentively to faculty, staff and peers, as well as to participate in educational activities. This necessitates arriving for class on time to avoid interrupting the learning process of others. Demonstration of respectful behaviors towards faculty, staff and peers is expected.

### I. Class Schedule

A. After orientation, students attend formal class sessions ten hours per week. The scheduled classes are as follows:

First Year Students:

Tuesdays & Thursdays	12:00 p.m. – 4:00 p.m.
Fridays	8:00 a.m. – 10:00 a.m. quarter 1 & 2 12:00 p.m. – 4:00 p.m. quarters 3 & 4

Second Year Students

Mondays & Wednesdays	12:00 p.m. – 4:00 p.m. quarters 5 & 6 1:00 p.m. – 4:00 p.m. quarters 7 & 8
Fridays	12:00 p.m. – 4:00 p.m. quarters 5 & 6 8:00 a.m. – 12:00 p.m. quarters 7 & 8

A. Workshops

1. Workshops for additional help or clarification may be scheduled when needed. These workshops are not mandatory.

B. No formal classes are held during the quarter breaks or on an observed holiday. However remedial testing or make-up work may be accomplished during these breaks (excluding holidays).

### II. Class Assignments

A. Homework assignments, special projects, technical research, and remedial assignments are not considered a part of the scheduled program and are to be completed on the student's own time.

B. The course syllabus for each course is posted documents in Trajecsys.

1. The syllabus contains course content, objectives, outlines and assignments for the course.
2. The assignments follow the course objectives and course outlines, but are broken down into daily lesson plans to be followed more comprehensively by the student.
3. Homework and necessary textbooks are posted with the daily class lesson plans.
4. Failure to come to class prepared (*i.e. not having textbooks or workbooks or assignments to be graded in class*) will result in Student Incident Report.
5. Homework assignments must be completed by each student on their own. Copying another's homework assignment is viewed as cheating and is a breach of the school's honor code.

C. Students are expected to complete and turn in assignments on time.

1. Assignments that are complete and turned in on time will receive credit. Assignments turned in late or not turned in will receive a 0.
  - a. If you are absent on a class day, it is the student's responsibility to turn in assignments on the next class day to receive credit.
3. Assignments done during class will be assigned a grade, if you are absent or do not participate you will your grade will be 0.

D. Students are expected to make up missed tests as soon as possible when they return to class.

1. Tests missed due to a class absence must be taken no later than 3 days after the student's return.
  - a. Students are responsible to make arrangements, with the instructor, to schedule the test missed.
2. **Failure to make up the exam within the allotted time will result in a 20% reduction for that test or exam grade.**

E. Tutoring is available upon request.

III. Textbooks (*Subject to change*)

**First Quarter Books:**

Adler Carlton	<i>Introduction to Radiologic Sciences and Patient Care</i> 6 <sup>th</sup> Edition      ISBN 978-0-323-31579-1
Bontrager Lampignano	<i>Textbook of Radiographic Positioning and Related Anatomy</i> 8 <sup>th</sup> Edition      ISBN 978-0-323-08388-1
Bontrager & Lampignano	<i>Radiographic Positioning and Related Anatomy Workbook</i> 8 <sup>th</sup> Edition      ISBN 978-0-323-08832-9
Shoener	<i>A Pocket Guide to Radiographic Procedures - <b>Optional</b></i> 1 <sup>st</sup> Edition      ISBN-13: 978-0803622746
DeAngelis	<i>The Integrated Radiography Workbook - <b>Optional</b></i> 6 <sup>th</sup> Edition      paperback 2014

**Second Quarter Books:**

Eisenberg Johnson	<i>Comprehensive Radiographic Pathology</i> 6 <sup>th</sup> Edition      ISBN 978-0-323-35324-3
Eisenberg Johnson	<i>Comprehensive Radiographic Pathology Workbook</i> 6 <sup>th</sup> Edition      ISBN 978-0-323-35325-0
Carroll & Bowman	<i>Adaptive Radiography with Trauma, Image Critique, and Critical Thinking</i> ISBN-13: 978-1-111-54120-0 <a href="http://www.cengagebrain.com">www.cengagebrain.com</a> e-book

**Third Quarter Books:** Charles C Thomas Publisher - <http://www.ccthomas.com>

Carroll	<i>Radiography in the Digital Age: Physics-Exposure-Radiation Biology</i> 2 <sup>nd</sup> Edition      ISBN 978-0-398-08096-9
Carroll	<i>Radiography in the Digital Age – Workbook</i> 2 <sup>nd</sup> Edition      ISBN 978-0-398-08119-5

**Fourth Quarter Books:**

Lazo	<i>Fundamentals of Sectional Anatomy Workbook: An Imaging Approach</i> 2 <sup>nd</sup> Edition      ISBN 978-1-133-96085-0
Seeram	<i>Computed Tomography: Physical Principles, Clinical Applications and Quality Control</i> 4 <sup>th</sup> Edition      ISBN 978-0-323-31288-2

**Seventh Quarter Books:**

Cummings	<i>CORECTEC'S On-Line Registry Review Course</i> Ordered through CORECTEC by students
Saia, D.A.	<i>Lange Q &amp; A Radiography Examination</i> 11 <sup>th</sup> Edition

- C. The booklist is reviewed each year and the School reserves the right to change textbooks from one class to another at the discretion of the Program Director (do not buy books until given list specific to each class).
1. Textbooks may be purchased new or used.
  2. Workbooks must in new condition you may not purchase used.

## Course Requirements

- A. All courses require a minimum grade average 78% to pass.
  - 1. Students will receive course grades at the end of each quarter. If a student is failing in any course at the time of the quarter evaluation the student will be placed on academic probation.
  - 2. Students receiving VA benefits will lose said benefits if the student is placed on academic or clinical probation twice during any given year.
  
- B. Didactic Grading Scale:
  - 93 - 100%      A
  - 84 - 92%        B
  - 78 – 83%        C
  - Below 78%       F

Students will meet with Program Director and Clinical Coordinator after each quarter to receive grades and talk about any concerns of the student or program officials.
  
- C. Homework must be turned in on time to receive credit. (*See Section II. Assignments*)
  
- D. Students are required to sign a grade qualification notice upon entry into the Radiologic Technology Program.
  
- E. Course Repeat Policy
  - 1. Any student failing a didactic course with a grade of 77% or lower will be allowed to voluntarily retake that course concurrently with their regular course studies. (*For additional information, see “Repeat Policy”, Section XI C, under General Policies and Guidelines.*)

## IV. Classroom Attendance

- A. Classroom attendance is mandatory
- B. Absences
  - 1. All assignments must be turned in immediately upon the student’s return.
    - a. In case of prolonged serious illness, make-up assignments will be scheduled by the instructor.
  - 2. If a student is going to miss class, the student must notify the instructor before the start of class.
  - 3. Five class absences during any one course will automatically lower that course grade by 1 letter.
  
- C. Students are to be to class on time.
  
- D. Dress Code
  - 1. Students will wear the school uniform when attending classes.

## V. Educational Leave

- A. Student Seminar
  - 1. Adequate time will be given to each student in good standing to attend a student seminar during the Second Year.
  - 2. No student on probation will be allowed to participate in out-of-town student seminars, conferences, workshops or programs, they will report to class and clinical assignments.
  
- B. Unforeseen educational programs of benefit to the student will be considered on an individual basis and the student will be granted time off at the discretion of the Program Director.

## Course Descriptions - Didactic and Clinical

### **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 twenty-three program. In addition to the subject areas listed below, students are given an overview of Radiographic Exposure (density, contrast, detail and definition); X-Ray Production; and Basic Radiographic and Medical Terminology.

*Subject areas studied more in depth are the following:*

#### Introduction to Imaging and Radiologic Sciences

- Professional Organizations
- Educational Survival Skills
- Critical-Thinking and Problem-Solving Strategies
- Introduction to Clinical Education
- Radiology Administration
- Radiographic Imaging
- Radiographic and Fluoroscopic Equipment
- Basic Radiation Protection and Radiobiology
- Professional Ethics
- Health Records and Health Information Management
- Medical Law
- Department Specific Orientation
- LRH Hospital Orientation
- Positioning, Terminology, and Principles
- General, Systemic, and Skeletal Anatomy and Arthrology
- Human Diversity

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.

Prior to the official start date of the program students attend Part 1 of the mandated hospital orientation classes to meet OSHA and JCAHO requirements.

**Year 1, Quarter 1  
150 Clock Hours**

### **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. *Included in this course are the following components:*

- Safe Patient Movement and Body Mechanics
- Immobilization Techniques
- Patient Interactions and Communication
- History Taking
- Infection Control
- Standard Precautions – to include state mandated AIDS / HIV Education
- Aseptic and Nonaseptic Techniques
- Vital Signs
- Basic Cardiac Monitoring
- Oxygen
- Chest Tubes and Lines
- Medical Emergencies
- Mobile Radiography
- Pharmacology
- IV Therapy and Venipuncture
- Contrast Media
- Medical Terminology as related to Patient Care

**Year 1, Quarter 1  
70 Clock Hours**



### **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.

**Year 1, Quarter 2**  
**114 Clock Hours**

### **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. *Included in Radiographic Exposure I are the following:*

- Image Formation in Digital and Analog Systems
- Exposure Technique Factors to include Relationship of kVp and mAs
- Primary Principles and Factors of Radiographic Quality
- Beam Restriction
- Comparison of Digital and Analog Imaging Systems Functions
- Introduction to Compton and Photoelectric Effect
- Factors Contributing to Differential Absorption

**Year 1, Quarters 3 - 4**  
**46 Clock Hours**

### **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. *Included in this course of study is the following:*

- Introduction to Pathology
- Bony Thorax
- Vertebral Column
- Respiratory System
- Respiratory Pathology
- Gastrointestinal and Biliary System
- Digestive System Pathology

**Year 1, Quarter 3**  
**110 Clock Hours**

### **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. *Included in this course of study is the following:*

- Skull and Facial Bones
- Nervous System
- Cross-Sectional Anatomy
- CT Positioning
- First Year Review
- First Year Final

**Year 1, Quarter 4**  
88 Clock Hours

### **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.

**Year 1, Quarter 4**  
30 Clock Hours

### **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. *Included in Radiographic Exposure II are the following:*

- Image quality utilizing different types of image receptors
- Image quality principles of computed tomography
- Necessary Technique and Adjustments Needed for Proper Utilization of Computed Radiography, Direct Digital Radiography, and Screen-Film Imaging.
- Scatter Control including grids, Aperture Diaphragms, and Collimation
- Image Processing and Display within Analog and Digital Imaging Systems
- Intensifying Screens Construction and Function
- Communications within Imaging including PACS, DICOM, RIS, HIS and HL7.
- Principles of Automatic Exposure Control Devices
- Methods of Formulating Technique Charts

**Year 2, Quarter 5**  
132 Clock Hours

### **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 with body systems 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. *Included in this course of study is the following:*

- Circulatory System
- Lymphatic System
- Urinary System
- Pathology of Skeletal System

**Year 2, Quarter 6**  
40 Clock Hours

### **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

- Fundamental units of mass, energy and measurements
- Basic atomic structure
- Fundamentals of Radiation: Properties and characteristics; types; units and dosages (RAD, REM, R); and production of and interactions with matter
- Fundamentals of electricity and magnetism
- Basic components of an electric circuit
- Basic principles and functions of generators, motors, transformers, and rectification
- Basic design and components of an x-ray circuit
- The construction, characteristics, and functions of x-ray and CT tubes
- The purpose and application of heat rating and anode cooling charts
- An in-depth study of x-ray production and emission

**Year 2, Quarter 6**  
96 Clock Hours

### **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.

- Fundamentals of Radiation: Properties and characteristics; types; units and dosages (RAD, REM, R); and production of and interactions with matter
- Principles of Radiobiology: Cellular composition and structure; cell division; L.E.T. and R.B.E.; radiosensitivity and radioresistance; direct and indirect target theory; somatic and genetic effects; dose effect curves; acute and chronic exposure factors; radiation syndromes
- Regulations in the Work Environment: Advisory groups for radiation protection; dose equivalent limits; ALARA principle; barriers and regulatory standards; warning signs; State licensing and/or certification regulations
- Protection of Patient and Radiographer: Shielding devices, time and distance; fluoroscopic considerations; filtration; coning; and half-value layers
- Radiation Monitoring Devices: Film, TLD, & OSL badges; Geiger counters; ionizations chambers; Victoreen R meters

**Year 2, Quarter 7**  
96 Clock Hours

### **RAD 260 – SENIOR REVIEW I**

This course is an intensive review of all courses taken during the twenty three 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.

**Year 2, Quarter 7**  
24 Clock Hours

### **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.

**Year 2, Quarter 8**  
92 Clock Hours

### **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.

**Year 2, Quarter 8**  
20 Clock Hours

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

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:

- 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

**YEAR 1, Quarter 1**  
184 Clock Hours

### **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

**YEAR 1, Quarter 2**  
296 Clock Hours

### **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

**YEAR 1, Quarter 3**  
330 Clock Hours

### **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

**YEAR 1, Quarter 4**  
234 Clock Hours

**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,

**YEAR 2, Quarter 5**  
270 Clock Hours

**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

**YEAR 2, Quarter 6**  
300 Clock Hours

**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

**YEAR 2, Quarter 7**  
252 Clock Hours

**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

**YEAR 2**  
(270 – 300 Clock Hours depending on which quarter taken)

**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.

**Year 1 & 2**

**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.

**Year 1 & 2**

**SENIOR PROJECT**

During the second year, each student is required to write a research paper on a radiation protection related subject, and prepare a free-standing exhibit depicting some new aspect of radiology to be submitted for competition at the Florida Society Radiologic Technologists (FSRT) conference.

**Year 2**

## Course Sequencing

### YEAR 1, 1<sup>st</sup> Quarter

RAD 100 Introduction to Radiologic Technology  
RAD 110 Radiologic Patient Care  
RADC 110 Clinical Practicum I

### YEAR 1, 2<sup>nd</sup> Quarter

RAD 120 Anatomy, Physiology & Radiographic Procedures I  
RADC 120 Clinical Practicum II

### YEAR 1, 3<sup>rd</sup> Quarter

RAD 121 Anatomy, Physiology & Radiographic Procedures II  
RAD 130 Exposure I  
RADC 130 Clinical Practicum III

### YEAR 1, 4<sup>th</sup> Quarter

RAD 122 Anatomy, Physiology & Radiographic Procedures III  
RAD 130 Exposure I  
RAD 140 CT Basics  
RADC 140 Clinical Practicum IV

### Year 2, 5<sup>th</sup> Quarter

RAD 231 Radiographic Exposure II  
RADC 210 Clinical Practicum V **or**  
RADC 240 Clinical Practicum VIII

### Year 2, 6<sup>th</sup> Quarter

RAD 220 Anatomy, Physiology & Procedures IV  
RAD 240 Radiologic Physics  
RADC 210 or 220 Clinical Practicum V or VI **or**  
RADC 240 Clinical Practicum VIII

### Year 2, 7<sup>th</sup> Quarter

RAD 250 Radiation Biology & Protection  
RAD 260 Senior Review I  
RADC 220 Clinical Practicum VI or  
RADC 240 Clinical Practicum VIII

### Year 2, 8<sup>th</sup> Quarter

RAD 270 Specialized Imaging Modalities  
RAD 261 Senior Review II  
RADC 230 Clinical Practicum VII

+Original: 1980

Revised: 1985; 1988; 1990; 1992; 1993 (1<sup>st</sup> 3/93); 1993 (2<sup>nd</sup> 6/93); 1993 (3<sup>rd</sup> 12/93); 1994 (1<sup>st</sup> 6/94); 1994 (2<sup>nd</sup> 10/94); 1996; 1997; 1999; 2000; 2001; 2002; 2003; 2004; 2005; 2006(1<sup>st</sup> 4/06); 2006(2<sup>nd</sup> 5/06); 2007; 04/2008; 04/2009; 07/2010; 6/2011; 06/2012; 05/2013; 03/2014; 05/2014; 07/2014; 10/2014; 01/2015; 01/17; 06/17; 01/18; 12/18





**LRH School of Radiologic Technology  
Declaration of Pregnancy**

**APPENDIX A**

Name (print): \_\_\_\_\_ Social Security #: \_\_\_\_\_

Estimated Date of Conception (month, year): \_\_\_\_\_

Badge Number \_\_\_\_\_ Program State Date: \_\_\_\_\_

By providing this information in writing to the Radiography Program Director, I am voluntarily declaring myself to be pregnant as of the date shown above. I understand that under the provision of 10CFR Part 20.1208, the exposure to my unborn child from occupational exposure to radiation will not be allowed to exceed 5mSV (500 mrem) during the entire pregnancy. The dose to my unborn child shall be taken as the sum of my deep-dose equivalent. I understand that this limit includes any exposure I have received since conception and that this limit is intended to provide an extra measure of protection for the embryo/fetus since it may be more sensitive to ionizing radiation than an adult. I understand that if I should find out that I am not pregnant, or if for any reason my pregnancy is terminated, I should inform the Program Director as soon as practical. I also understand that I may undeclared my pregnancy in writing at any time.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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**Program Director's Receipt of Pregnancy Declaration**

By signing this statement, I acknowledge receipt of the declaration of pregnancy for the above student in the Radiography Program. I have also provided her with an outline of the potential risks from exposure to the unborn child from the information provided in Regulatory Guide 8.13 and have talked to her about these associated risks in accordance with the above stated limitations and the ALARA program. I understand it is my responsibility to forward this form to the Radiation Safety Officer.

**Name:** \_\_\_\_\_ **Badge #:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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**Radiation Safety Officer's Receipt of Pregnancy Declaration**

By signing this statement, I acknowledge receipt of the declaration of pregnancy for the above individual. I have evaluated her prior exposure to ensure appropriate limits to control the dose to her unborn child have been established and are in accordance with above stated limitations and the ALARA program, and that appropriate monitoring is being provided.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

*Please return signed form to the Radiography Program Director's Office.*



Lakeland Regional **Health**<sup>®</sup>

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