

# Research Medical Center School of Radiologic Technology

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## Applicant Information 2024-2026

**Research Medical Center Brookside Campus  
6675 Holmes Rd Suite 660  
Kansas City, MO 64131  
816-276-3390**

## **Research Medical Center School of Radiologic Technology**

### **Mission Statement**

The mission of Research Medical Center School of Radiologic Technology is to provide a quality educational program that promotes excellence in Radiologic Technology and produces competent, professional, and compassionate radiographers for the healthcare community. Graduates will obtain the knowledge required of an entry-level radiographer and be prepared to successfully sit for the ARRT examination.

### **Program Effectiveness, Goals, and Student Outcomes**

#### **Program Effectiveness: Students graduate with the skills necessary to be entry-level technologists.**

- PE - SLO 1: Students will complete the program within 23 months.
- PE - SLO 2: Graduates will indicate that they are satisfied with their educational program.
- PE - SLO 3: Employers will indicate that they are satisfied with the graduate's performance.
- PE - SLO 4: Students will pass the ARRT certification exam on the first attempt.
- PE - SLO 5: Graduates seeking employment will be employed within 6 months of graduation.

#### **Goal 1: Students graduating from the program are clinically competent.**

- Goal 1 - SLO 1: Students will successfully perform routine radiographic exams
- Goal 1 - SLO 2: Students will practice radiation protection and safety for the patient, self, and others
- Goal 1 - SLO 3: Students will appropriately assess and meet patient needs

#### **Goal 2: Students graduate with problem-solving and critical thinking skills.**

- Goal 2 - SLO 1: Students will evaluate and critique radiographs for anatomy, positioning, and pathology
- Goal 2 - SLO 2: Students will demonstrate the ability to adapt to non-routine imaging exams
- Goal 2 - SLO 3: Students will apply critical thinking skills to solve imaging problems

#### **Goal 3: Students graduate with effective communication skills in a health care setting.**

- Goal 3 - SLO 1: Students will demonstrate effective knowledge of verbal medical communication
- Goal 3 - SLO 2: Students will demonstrate effective knowledge of written medical communication

#### **Goal 4: Students graduating from the program will demonstrate a commitment to professional development and ethical behaviors.**

- Goal 4 - SLO 1: Students will understand the ARRT Code of Ethics in a comprehensive manner
- Goal 4 - SLO 2: Students will demonstrate professional work ethics
- Goal 4 - SLO 3: Eligible Students will join the Radiologic Technology Honor Society, Lambda Nu.

### **Program Description**

The program of radiological technology is designed to train individuals who are skilled in the use of ionizing radiation for diagnostic purposes. The curriculum provides instruction in both the classroom and clinic. The didactic component consists of sessions concerning the factual and theoretical basis of radiology. The clinical setting provides the opportunity for applying classroom knowledge in a supervised patient care environment. The entire curriculum is competency-based requiring mastery of all entry-level skills. Each student is provided with educational objectives to achieve in specific time intervals for specific levels of accomplishment. This system provides a method for efficient and productive learning.

The program requires twenty-three months of study and all students enrolled must attend full time. The school is fully accredited by the Joint Review Committee on Education in Radiology Technology (JRCERT) 20 N. Wacker Dr. Suite 2850, Chicago, IL 60606 (312.704.5300) ([www.jrcert.org](http://www.jrcert.org)). The standards for accreditation can be accessed on JRCERT's web site.

Upon successful completion of the course of study, a certificate of completion in Radiologic Technology is issued to the student. The student is then eligible for the ARRT national registry examination in Radiologic Technology. Upon passing the registry, the student becomes a Registered Radiologic Technologist, R.T. (R) (ARRT).

The course of study includes all courses recommended in the Curriculum Guide for Programs in Radiologic Technology, developed by the American Society of Radiologic Technologists ([www.ASRT.org](http://www.ASRT.org)).

### **Length of Program / Early Release**

The radiography program is a 23-month full time program. The program does not provide accommodations for part time students. Students attend forty (40) hours per week. Academic and clinical instruction is based on 40 hours of required attendance. The program begins after the fourth of July, and graduation is typically held during the third week of May. Circumstances such as illness or pregnancy may result in the length of the program being extended. All students are required to complete the program within 36 months. The program does not provide for the early release of students.

The program utilizes a quarter-based curriculum. There are 8 quarters in the 23-month program. At the end of each quarter, the student will be assigned a 5-day quarter break. Students will be scheduled off during one week of the break period. For the other week, the student will be assigned to a clinical area. No classes will be conducted during quarter breaks.

### **Entrance Requirements**

1. A minimum of an Associate's Degree or proof of enrollment in a 2 plus 2 Bachelor's Degree Program with a school articulated with RMC School of Radiologic Technology.
  - Candidates for RMC's program that are currently enrolled in an Associate's Degree program must complete the program and receive their degree prior June 1<sup>st</sup> of the year application.
2. Required courses:
  - Post-secondary (college) courses required (Minimum grade of "C"):
    - Composition
    - Speech
    - Medical Terminology
    - College Algebra completed within the last five years
    - Anatomy and Physiology with a lab completed within the last five years
    - Introduction to Physics
3. Suggested additional postsecondary coursework:
  - Natural sciences
  - Mathematical/logical reasoning
  - Social/behavioral sciences
4. GPA requirements:
  - A cumulative grade point average of 2.75 on a 4.0 scale from postsecondary course work.
  - A minimum of a "C" grade in all required courses.
5. A completed application must be submitted as well as official transcripts from all schools (high school and college) attended as shown on the application. The application will not be processed until transcripts are received.
6. After the application has been received and reviewed by the program, the applicant will be contacted with a date to take the mandatory entrance examination (HESI).
7. A forty dollar (\$40.00) application fee is required before the application will be processed.
8. Applicants must submit two completed reference forms.
9. The application deadline is December 1st. The completed application, all high school and college transcripts, application fee, and reference forms must be post marked by December 1st in order to be eligible for admission.

## Graduation Requirements

In order to graduate from the Research Medical Center School of Radiologic Technology program, the student must possess the following basic traits and complete the following requirements:

- The technical competence to perform diagnostic imaging procedures, and successful completion of all required clinical competency exams.
- The ability to modify standard imaging procedures to accommodate for patient condition and other variables.
- The ability to evaluate medical images and make appropriate adjustments to obtain optimal quality.
- Prudent judgment in administering ionizing radiation to produce diagnostic images.
- Understanding and safe operation of radiographic equipment and accessories.
- A focus on providing optimum patient care in a society that is becoming increasingly diverse and experiencing generational, cultural and ethnic shifts.
- The skill to use modern technologies to research and retrieve information, weigh and discriminate between good and poor sources of information, and take action based on the acquisition of new information and knowledge.
- Stewardship over the security and confidentiality associated with patient medical information.
- Skills that promote career-long learning, where the radiographer assumes the role of student and that of teacher.
- An eagerness to collaborate with others within the medical imaging community to promote standards of excellence in the medical imaging sciences.
- A willingness to contribute to the education and clinical skills development of radiologic science students.
- Demonstrate knowledge in specific content areas by successfully completing all required coursework or remedial coursework assigned by an instructor.
- Complete all make-up time per program policy and procedure.
- Pay all program fees in full.

Upon meeting all of the above terminal competencies, graduation will be conferred to the student and a Certificate of Completion in Radiologic Technology will be issued.

## Application Procedure

- An applicant must submit a fully completed application by December 1st for the following July start date.
- An official copy of all high school (or an official high school equivalency transcript) and college transcripts must be forwarded to the School of Radiologic Technology. It is the applicant's responsibility to verify that the required transcripts have been received by the program.
- Complete a radiology job shadow at RMC. **Job shadows are conducted from May 15 to December 15.**
- Submit the required application fee. If the application fee is paid by check and the check is returned for non-payment, the application becomes nullified.
- Two completed reference forms must be submitted by December 1st.
- When the application has been received and reviewed by the program, the applicant will be contacted with a date to take the mandatory Health Occupations Entrance Examination.
- Approximately 30 applicants will be selected for interviews. The interview selection process is determined by academic achievement, score on the entrance examination, references submitted, and any previous health care work experience.
- Rejection of an application can occur in any step of the application process.
- A maximum of 12 students are accepted each year.
- Applicants that have completed the application process will be notified by March 1<sup>st</sup> whether or not they

have been accepted into the program or chosen as an alternate.

### **Tuition and Program Costs**

Tuition - \$6,600.00

Application fee - \$40.00

Activity Fee - \$750.00

Books – Included in the Tuition

Uniforms - \$400.00 (purchased by student)

Background Check (Approximate cost: \$60.00)

Tuition is due according to the following schedule:

- Deposit of \$750.00 activity fee due upon acceptance into program.
- 1<sup>st</sup> payment of \$1,650.00 will be due on September 15 of the first year in the program
- 2<sup>nd</sup> payment of \$1,650.00 will be due on February 15 of the first year in the program
- 3<sup>rd</sup> payment of \$1,650.00 will be due on September 15 of the second year in the program
- 4<sup>th</sup> payment of \$1,650.00 will be due on February 15 of the second year in the program

### **Financial Aid**

The School of Radiologic Technology participates in the following financial aid programs:

- U.S. Department of Education Pell Grant and U.S. Department of Education Student loan programs
- VA benefits
- Subsidized and Un-subsidized Stafford loans

To qualify for financial aid assistance, the student will have to complete an institutional and a federal application for financial aid. Please contact the financial aid office in the Research College of Nursing at 816.995.2832 or e-mail [stacie.withers@researchcollege.edu](mailto:stacie.withers@researchcollege.edu) to begin the financial aid process. Students receiving financial aid must maintain the program's minimum academic and clinical standards to maintain their eligibility. RMC does not provide loan services to students in the Program.

### **Non-Discrimination Policy**

The Program does not discriminate against applicants or in the administration of its educational policies and procedures by reasons of sex, race, religion, color, handicap, age or national origin. The program adheres to the Fair Practices in Education as established by its accrediting agency, JRCERT.

### **JRCERT Standards**

The JRCERT Standards for an Accredited Educational Programs can be found on-line at:  
<http://www.jrcert.org/programs-faculty/jrcert-standards/>

### **Program Academic Requirements**

Each student is required to complete and obtain a minimum of 80% in all courses to remain in good academic and clinical standing. Failure to meet this requirement will result in the student being placed on academic probation. The first quarter of the program is considered probationary and a student not meeting academic or clinical standards can be dismissed at any time.

A student will be placed on academic probation for any of the following:

- Failure to obtain 80% in any course.
- Failure to obtain 80% on two lab tests.

After being placed on academic probation, a student is required to obtain an 80% in all courses for the remainder of the program. If a student fails to achieve an 80% in any course while on probation they will be dismissed from the program. A student will also be dismissed from the program for any of the following:

- Receiving less than 80% in two courses taught in any one quarter.
- Failure to complete clinical competencies standards as published in the clinical handbook.

- Failing one lab test after being placed on academic probation.

Students who fail to obtain an 80% in any course will be required to successfully complete all remedial course work assigned by the course instructor. The student's grade will not be changed upon completion of remedial work. If a student fails to pass all remedial course work, they will be dismissed from the program.

### **Academic Dishonesty**

Dishonesty on the part of a student in connection with either course material or student records is a serious matter involving the possibility of disciplinary action. Academic dishonesty includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others, e.g. plagiarism; and nondisclosure or misrepresentation in filling out applications or other program records.

When a violation of the policy occurs in connection with a course under the direction of a faculty member, that faculty member is authorized to take whatever action is deemed appropriate, up to and including failing the student for the course. Whenever this penalty is imposed, the instructor will inform the Program Director in writing of the full details of the penalty. The Program Director may impose additional penalties or refer the matter to the Advisory Board for a determination of whether additional penalties are warranted.

### **Grievance Procedure**

#### **Purpose**

The procedure is designed to provide the student with an unbiased, systematic process of resolving issues and discrepancies that arise within the program. This procedure is available to all students on a voluntary basis. The student has a right to file a grievance using the following process for academic or clinical disciplinary actions, dismissal, or expulsion.

#### **Grievance Process**

##### **Step 1**

- The student has the right to have their case reviewed by the Advisory Committee of the School. Any action or grievance that a student wishes the Advisory Committee to consider must be described and submitted in writing to the program director within 7 calendar days of the actual occurrence. If the grievance directly involves the Program Director, the written statement should be submitted to the medical director or the appropriate Director of Imaging services.
- An advisory committee meeting will be scheduled within 10 working days of the receipt of the grievance. In cases of dismissal, a student may request to remain in the program until the advisory committee makes a decision regarding the grievance. In cases of expulsion, where the student's actions were deemed dangerous or threatening they will not be allowed to return to the program until after the committee has reached a decision.
- The student must sign a release of information to permit the Advisory Committee access to their transcripts and student file if the grievance involves the student's academic or clinical performance.
- Students will be required to appear in person before the Advisory Committee to present their grievance.
- If the grievance concerns a member of the Advisory Committee, that committee member will also be allowed to present their case before the Advisory Committee, but will not be present during the student's appearance or during subsequent discussion.
- The program faculty committee members will be excluded from any voting privileges during the appeal process.

- After the grievance has been reviewed by the Advisory Committee, each member, excluding program faculty, will be asked to make a decision or recommendation. Each vote will be anonymous and submitted in writing at the meeting. The ballots will be tallied by a voting member. The final decision will be made according to the majority of the votes from the Committee. At least five voting members must be present for a decision to be valid.
- The student will be notified in writing within 5 working of the Advisory Committee decision or recommendation.

#### Step 2

- If the student feels a decision made by the Advisory Committee is unjustified, they may appeal to the Chief Operating Officer (COO) of the Medical Center.
- Any action or grievance that a student wishes the COO to consider must be described and submitted in writing within 7 days of the Advisory Committee's written decision. This request must be submitted to program faculty or COO.
- The student transcript and file will be forwarded to the COO for their review if needed.
- The COO will respond within 10 working days upon their receipt of the student grievance. Written notification will then be forwarded to the student.
- The COO's decision will be final.
- If the student feels the COO's decision is unjustified they may initiate a complaint with the Missouri Department of Higher Education ([www.dhe.mo.gov](http://www.dhe.mo.gov))

#### Release of Information

The following information will be supplied to the Advisory Committee Members and the COO in all cases of academic or clinical disciplinary action.

- Academic transcript
- All formal and informal documents relevant to the incident
- Attendance records
- Copies of appropriate Student Handbook policies
- Disciplinary action documents
- Grade reports
- Handbook Acknowledgement signed by student
- Letter of appeal submitted by the student
- Student evaluations

#### Failure to Appeal

The student has 7 calendar days to review the disciplinary action. If the student fails to appeal within this time frame, the action will be considered valid and appropriate. Mutual consent of both parties may extend the time periods within the above process.

No students will suffer any reprisals on any level for initiating the grievance process.

## Grading Scale

All clinical and didactic course work is graded based on the following scale:

Percentage Grade	GPA	Letter Grade
95.0 – 100	4.00	A
90.0 – 94.9	3.70	A-
87.0 – 89.9	3.30	B+
83.0 – 86.9	3.00	B
80.0 – 82.9	2.70	B-
77.0 – 79.9	2.30	C+
73.0 – 76.9	2.00	C
70.0 – 72.9	1.70	C-
67.0 – 69.9	1.30	D+
63.0 – 66.9	1.00	D
60.0 – 62.9	0.70	D-
Below 59.9	0	F

**The School of Radiologic Technology observes the following holidays:**

- New Year's Day
- Memorial Day
- 4th of July
- Labor Day
- Thanksgiving Day and the day after Thanksgiving
- Christmas Day

### Program Clinical Education Requirements

Background check/drug screening will be completed prior to clinical assignments.

Documentation of professional liability will be maintained by Research Medical Center.

2 Weeks of evening rotations, 1 week in the first year, 1 week in the second year, no weekend rotations.

Clinical sites:

- Research Medical Center
- Research Medical Center Brookside
- Menorah Medical Center
- Kansas City Orthopedic Institute
- Cass Regional Medical Center
- Kansas City Veteran's Administration
- Children's Mercy Hospital

The purpose of clinical education is to acquire mastery of the knowledge, insight and skills required to obtain quality medical images, as well as practicing prudent radiation protection and safety for the patient, the student and co-workers. Mastery of the interpersonal skills required to deal effectively with patients and other members of the health team is another important component of clinical education.

At Research Medical Center, the student will be guided and supervised in their clinical education. The clinical phase of the program is competency-based. The student must demonstrate clinical competency in each area to successfully meet clinical standards of achievement. Each quarter the student must complete a specific number



of clinical competency evaluations, which will correlate to their knowledge, and application of skills during each respective quarter. All specified clinical competencies must be completed prior to graduation.

The clinical component of the program is a major part of the total educational process. The ultimate goal of the clinical education phase of the program is to provide the students with the necessary repetition and variety of radiologic procedures to assist them in their development into highly skilled medical radiographers. Students are expected to obtain diagnostic medical images with indirect supervision during the last phase of the program.

### **Student Responsibilities**

- Check student schedules for clinical assignments and class times.
- Be on time for clinical assignments and classes.
- Follow the school dress code at all times. Wear name badge, dosimeter and have lead markers at all times when in clinic.
- Communicate with program faculty in the event of an absence or being late and provide a reason. Fill out forms when requesting a day off in advance.
- Review department protocols prior to performing any procedures.
- Seek assistance from a registered technologist when performing all repeat examinations.
- Demonstrate clinical competency prior to performing radiographic examinations with indirect supervision.
- Review clinical objectives and evaluation forms and complete by established deadlines.
- Stock radiographic rooms every morning.
- Participate in all aspects of clinic education and demonstrate a willingness to help in any way possible. Students should be participating in all exams in the assigned rooms.
- Studying for academic classes during clinical education should only be done when it does not interfere with patient examinations and patient flow.
- Use 'slow' times in clinic to practice positioning skills or complete clinical objectives.
- Complete and submit competencies according to published schedule.
- Communicate to the clinical instructor or clinical coordinator any exams or areas that the student feels additional instruction or experience are needed.
- Communicate to the clinical instructor or program director any problems, concerns or questions the student may have.
- Maintain a minimum of 80% in all courses.
- Realize that the Program makes every effort to maintain consistency between the clinical sites; however, differences will occur and are to be expected. One example is that breaks and lunches are determined by the clinical site and will vary from site to site.

RMC School of Radiologic Technology Class of 2023 - 2025							
	1st Quarter - 07.06.23 - 9.30.23	Credits	Didactic Hours	Lab Hours	Clinic Hours	Total Contact Hours	Instructor
RAD 111	Anatomy and Physiology I	3	34			34	Schweigerdt
RAD 112	Principles of Positioning I	3.5	42	84		126	Schweigerdt
RAD 113	Radiology Patient Care I	3	34			34	Barker
RAD 114	Principles of Medical Imaging I	3	34			34	Reynolds
RAD 115	Clinical Education I	2.5			256	256	Faculty
	<b>Total</b>	<b>15</b>	<b>144</b>	<b>84</b>	<b>256</b>	<b>484</b>	
	2nd Quarter - 10.01.23 - 12.30.23	Credits	Didactic Hours	Lab Hours	Clinic Hours	Total Contact Hours	Instructor
RAD 121	Anatomy and Physiology II	2	22			22	Schweigerdt
RAD 122	Principles of Positioning II	3	28	30		58	Schweigerdt
RAD 123	Radiology Patient Care II	2	22			22	Reynolds
RAD 124	Principles of Medical Imaging II	2	22			22	Reynolds
RAD 125	Clinical Education II	3.5			376	376	Faculty
	<b>Total</b>	<b>12.5</b>	<b>94</b>	<b>30</b>	<b>376</b>	<b>500</b>	
	3rd Quarter - 12.31.23 - 03.30.24	Credits	Didactic Hours	Lab Hours	Clinic Hours	Total Contact Hours	Instructor
RAD 131	Anatomy and Physiology III	2	22			22	Reynolds
RAD 132	Principles of Positioning III	3	28	30		58	Schweigerdt
RAD 133	Neuro Anatomy	2	22			22	Schweigerdt
RAD 134	Principles of Medical Imaging III	2	22			22	Reynolds
RAD 135	Clinical Education III	3.5			360	360	Faculty
	<b>Total</b>	<b>12.5</b>	<b>94</b>	<b>30</b>	<b>360</b>	<b>484</b>	
	4th Quarter - 03.31.24 - 06.29.24	Credits	Didactic Hours	Lab Hours	Clinic Hours	Total Contact Hours	Instructor
RAD 141	Sectional Anatomy	2	22			22	Schweigerdt
RAD 142	Principles of Positioning IV	3	28	30		58	Schweigerdt
RAD 144	Principles of Medical Imaging IV	2	22			22	Reynolds
RAD 147	Imaging Modalities I	1	11			11	Reynolds
RAD 145	Clinical Education IV	3.5			380	380	Faculty
	<b>Total</b>	<b>11.5</b>	<b>83</b>	<b>30</b>	<b>380</b>	<b>493</b>	
	5th Quarter - 06.30.24 - 9.28.24	Credits	Didactic Hours	Lab Hours	Clinic Hours	Total Contact Hours	Instructor
RAD 251	Systems Anatomy I	2	22			22	Reynolds
RAD 252	Radiographic Special Procedures	1	11			11	Reynolds
RAD 256	Senior Positioning Seminar I	0.5	6			6	Barker
RAD 257	Radiation Biology and Protection I	1	11			11	Reynolds
RAD 258	Radiation Pathology I	1.5	14			14	Barker
RAD 255	Clinical Education V	4.5			416	416	Faculty
	<b>Total</b>	<b>10.5</b>	<b>64</b>	<b>0</b>	<b>416</b>	<b>480</b>	
	6th Quarter - 9.29.24 - 1.4.25	Credits	Didactic Hours	Lab Hours	Clinic Hours	Total Contact Hours	Instructor
RAD 261	Systems Anatomy II	2	22			22	Reynolds
RAD 266	Principles of Medical Imaging V	2	22			22	Reynolds
RAD 267	Radiation Biology and Protection II	2	22			22	Reynolds
RAD 268	Radiation Pathology II	1.5	16			16	Barker
RAD 269	Aspects of Radation Research	1	11			11	Reynolds
RAD 265	Clinical Education VI	3.5			376	376	Faculty
	<b>Total</b>	<b>12</b>	<b>93</b>	<b>0</b>	<b>376</b>	<b>469</b>	
	7th Quarter - 1.5.25 - 03.29.25	Credits	Didactic Hours	Lab Hours	Clinic Hours	Total Contact Hours	Instructor
RAD 273	Radiation Quality Assurance	2	22			22	Reynolds
RAD 276	Senior Positioning Seminar II	2	22			22	Barker
RAD 277	Imaging Modalities II	2	22			22	Reynolds
RAD 275	Clinical Education VII	3.5			360	360	Faculty
	<b>Total</b>	<b>9.5</b>	<b>66</b>	<b>0</b>	<b>360</b>	<b>426</b>	
	8th Quarter - 03.30.25 - 05.11.25	Credits	Didactic Hours	Lab Hours	Clinic Hours	Total Contact Hours	Instructor
RAD 286	Senior Positioning Seminar III	2.5	20			20	Barker
RAD 287	Radiology Review	3	40			40	Reynolds
RAD 285	Clinical Education VIII	2			228	228	Faculty
	<b>Total</b>	<b>7.5</b>	<b>60</b>	<b>0</b>	<b>228</b>	<b>288</b>	
	<b>Course Totals</b>	<b>91</b>	<b>698</b>	<b>174</b>	<b>2,752</b>	<b>3,624</b>	

## Curriculum

### Quarter Credit Calculations:

Didactic: 11 Contact Hrs. = 1 Quarter Credit

Lab: 30 Contact Hrs. = 1 Quarter Credit

Clinic: 102 Contact Hrs. = 1 Quarter Credit

COURSE DESCRIPTIONS				
Course Number	Course Title	Credits	Contact Hours	Course Description
<b>First Quarter</b>				
RAD 111	Anatomy and Physiology I	3	34	This course includes an introduction to the study of the human body and skeletal anatomy of the upper and lower extremity. Human anatomy and physiology of the osseous and respiratory systems will also be covered.
RAD 112	Principles of Positioning I	3.5	42 Didactic 84 Lab	This course will cover procedures and positioning of the upper and lower extremities, the chest and abdomen. Fundamental anatomy of each section will also be presented. This course includes an energized laboratory with simulations using radiographic phantoms and anatomical models.
RAD 113	Radiology Patient Care I	3	34	Fundamental procedures for the care and management of patients in radiology. The course will include vital signs, body mechanics, oxygen administration, sterilization techniques, patient preps for specific radiologic procedures, isolation techniques, recognition and responding to emergency medical conditions, communication, pharmacology and dealing with diverse patient populations.
RAD 114	Principles of Medical Imaging I	3	34	This imaging course will cover the basic principles of radiographic safety, x-ray production, and x-ray equipment. Introduces the concepts of radiologic science and safety, the structure of matter, electrical theory and magnetism. Describes the history of radiography. Discusses the healthcare system.
RAD 115	Clinical Education I	2.5	256	Supervised clinical practicums pacing the student through a competency-based clinical education. Students will be required to complete specific competency evaluations during the course. This course also includes film critique.
<b>Second Quarter</b>				
RAD 121	Anatomy and Physiology II	2	22	This section of anatomy and physiology will cover the following topics: skeletal anatomy of the vertebral column, bony thorax, digestive system and urinary system.
RAD 122	Principles of Positioning II	3	28 Didactic 30 Lab	This positioning course will include procedures and positions of the gastrointestinal system and the urinary system with the use of special contrast medias.
RAD 123	Radiology Patient Care II	2	22	This course covers professionalism, medical ethics, codes of conduct, history of medicine, communication, health care delivery systems, introduction to radiation protection and safety, specialty areas of radiology and professional organizations in reference to radiology and health care delivery. An introduction to basic radiographic equipment and exams will be covered. A review of common medical terms and abbreviations will also be included.
RAD 124	Principles of Medical Imaging II	2	22	Introduces the concepts of radiation physics. Explores the X-ray imaging system and principles of operation, introduces x-ray production, emission spectrum and photon-matter interactions.

RAD 125	Clinical Education II	3.5	376	During this quarter clinical competency and film evaluation will be assessed in the areas as covered in positioning and procedures 101-102. This course also includes film critique.
<b>Third Quarter</b>				
RAD 131	Anatomy and Physiology III	2	22	This course will cover topics to include: blood, cardiovascular and lymphatic systems.
RAD 132	Principles of Positioning III	3	28 Didactic 30 Lab	Positioning and procedures and its related anatomy of the following structures will be presented: ribs, sternum and the vertebral column (cervical, thoracic, lumbar, sacrum and coccyx). Pediatric radiography is also covered.
RAD 133	Neuro Anatomy	2	22	Anatomy of the skull, facial bones and sinuses will be presented. Radiographic as well as bony anatomy will be the area of focus. An overview of nervous system organization and anatomy and physiology of the central nervous system will also be included.
RAD 135	Principles of Medical Imaging III	2	22	Evaluates and describes the factors affecting x-ray production and the x-ray beam. Teaches students to apply radiation mathematics for optimum image quality and patient safety.
RAD 135	Clinical Education III	3.5	360	During this quarter, clinical competency and film evaluation will be assessed in the areas as covered in positioning and procedures I & II. This course also includes film critique.
<b>Fourth Quarter</b>				
RAD 141	Sectional Anatomy	2	22	This course is designed to introduce the student to sectional anatomy of the head, neck, chest spine, abdomen, pelvis and extremities. Various CT and MRI images will be presented, along with the anatomy of the muscular system. Pathological case studies of CT and MRI images will also be discussed.
RAD 142	Principles of Positioning IV	3	28 Didactic 30 Lab	This positioning course will cover the positioning and procedures of the skull, facial bones, orbits, zygomatic arches, nasal bones, mandible, sinuses and temporomandibular joints.
RAD 144	Principles of Medical Imaging IV	2	22	Discusses and describes factors affecting image capture and image quality. Focuses on Computed Radiography, Digital Radiography and Fluoroscopy. Introduces computer science for radiographic imaging.
RAD 145	Clinical Education IV	3.5	380	During this quarter clinical competency and film evaluation will be assessed in the areas as covered in positioning and procedures 101-104. This course also includes film critique.
RAD 147	Imaging Modalities I	1	11	Introduces Computerized Axial Tomography (CT), CT equipment operations, physics, image capture and procedures.
<b>Fifth Quarter</b>				
RAD 251	Systems Anatomy I	2	22	This course presents the hepatobiliary, male and female reproductive anatomy.
RAD 252	Radiographic Special Procedures	1	11	This course covers angiography, myelography, arthrography, hysterosalpingography, mammography, and special procedures of the biliary system and GI tract.
RAD 256	Senior Positioning Seminar I	0.5	6	This course is a review of Principles of Positioning I & II.
RAD 257	Radiation Biology and Protection I	1	11	Limiting radiation exposure for the patient and personnel is the main focus of this course. Topics include radiation units, the ALARA concept, shielding, primary barriers, equipment considerations and federal regulations regarding radiation safety. This course will also provide the student with the knowledge pertaining to radiation and possible biological damage to the human body.

RAD 258	Radiation Pathology I	1.5	14	This is the study of significant diseases and conditions, which present radiologic findings. Study will include diagnosis, etiology, symptoms, treatment and radiographic correlation. Units on the general principles of the, hepatobiliary, male and female reproductive systems will be presented.
RAD 255	Clinical Education V	4.5	416	During this quarter clinical competency and film evaluation will be assessed in the areas as covered in positioning I & II. This course also includes film critique.
<b>Sixth Quarter</b>				
RAD 261	Systems Anatomy II	2	22	This course covers the anatomy of the body's peripheral and central nervous system, nerve cells and impulse conduction, and the endocrine system.
RAD 266	Principles of Medical Imaging V	2	22	Explores the science of digital radiography and digital fluoroscopy, digital radiographic technique, viewing the digital image and causes of digital image artifacts.
RAD 267	Radiation Biology and Protection II	2	22	This course is a continuation of Radiology Biology and Protection I.
RAD 268	Radiographic Pathology II	1.5	16	This is the study of significant diseases and conditions, which present radiologic findings. Study will include diagnosis, etiology, symptoms, treatment and radiographic correlation. Units on the general principles of disease, respiratory, digestive, and nervous systems will be presented.
RAD 269	Aspects of Radiologic Research I	1	11	This course covers the basic concepts of research in the medical profession. Students will begin the preparation of a research topic to be presented at the Missouri State convention of Radiologic Technologists (MSRT).
RAD 265	Clinical Education VI	3.5	376	During this quarter clinical competency and film evaluation will be assessed in the areas as covered in positioning and procedures 101-205. This course also includes film critique.
<b>Seventh Quarter</b>				
RAD 273	Radiation Quality Assurance	2	22	This course will provide the student with the understanding of quality control and assurance in the radiology imaging department. Tests and procedures for equipment evaluation will be presented. State and federal regulations will be cited as appropriate.
RAD 276	Senior Positioning Seminar II	0.5	6	This course is a review of Principles of Positioning III & IV.
RAD 277	Imaging Modalities II	2	22	This course covers Image intensification, Bone densitometry, ultrasound, computers, digital imaging, and magnetic resonance imaging (MRI).
RAD 275	Clinical Education VII	3.5	360	During this quarter clinical competency and film evaluation will be assessed in the areas as covered in positioning and procedures 101-205. This course also includes film critique. The student will strive to become proficient in the areas of more complex procedures, mammography and surgical imaging.
<b>Eighth Quarter</b>				
RAD 287	Radiology Review	5	60	This is a series of lectures and review with testing in the areas identified within the Registry Content Specification Guide in preparation for the Registry Examination to be taken upon graduation from the program. This course is considered a final review of the entire program. THE STUDENT MUST COMPLETE THIS COURSE WITH AT LEAST AN 80% GRADE IN ORDER TO GRADUATE.

RAD 286	Senior Positioning Seminar III	0.5	6	This course is a review of Principles of Positioning and Final test preparation.
RAD 285	Clinical Education VIII	2	228	This quarter marks the completion phase of the program. All efforts should be made to complete all clinical competency evaluations. During this quarter, the student will gain clinical proficiency in routine diagnostic procedures.