PROGRAM DESCRIPTION
FOR
JULY 2018 – JUNE 2019

PROGRAM INCEPTION:  July 1982
PROGRAM REVISION:  June 2018

ACCREDITED BY:
THE JOINT REVIEW COMMITTEE ON EDUCATION IN RADIOLOGIC TECHNOLOGY (JRCERT)
MISSION STATEMENT
The mission of King’s Daughters’ Health (KDH) School of Radiologic Technology is to provide a quality education in the radiographic sciences, utilizing a current, sequential, twenty-four month competency-based clinical/didactic method of instruction. This prepares our graduates for a professional career as a radiographer and to sit for the ARRT (American Registry of Radiologic Technologists) national registry, which is accomplished only by integrating this new knowledge and skill with The KDH mission:

“To improve the health of our patients through care, service, and education.”


ROLE OF A RADIOLOGIC TECHNOLOGIST
The KDH School of Radiologic Technology is a 24 month, six semester program that prepares its students to become competent radiologic technologists. A radiologic technologist is a highly trained professional who is skilled in the use of ionizing radiation for the quality demonstration of portions of human anatomy on a computer monitor or fluoroscopic screen. The images produced by the radiologic technologist are used for diagnostic interpretation by a radiologist. Many radiologic technologists work in hospitals, although positions in clinics and private offices are available.

JRCERT ACCREDITATION
The KDH School of Radiologic Technology has been nationally accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Due to this accreditation, the graduating student is eligible (upon successful completion of the program and upon acquiring an associates degree) to take the national registry examination of the American Registry of Radiologic Technologists. Upon passing the ARRT registry exam, the graduate will be able to use the credentials of R.T.(R)(ARRT) behind their name.
The KDH School of Radiologic Technology is accredited by the JRCERT because of its commitment to and maintenance of the Standards for an Accredited Educational Program in Radiography as set forth by the JRCERT. Once accepted into the program, students are issued a handbook that contains a copy of the JRCERT Standards for Accreditation.

The King’s Daughters’ Health Radiologic Technology Program’s student learning outcomes and program effectiveness data can be viewed by visiting the Joint Review Committee on Education in Radiology web site at: [www.jrcert.org](http://www.jrcert.org). Accreditation and the JRCERT Standards for Accreditation can also be accessed at this web site.

In addition, the JRCERT can be reached at the following address and / or phone number:

JRCERT  
20 N. Wacker Drive  
Suite 2850  
Chicago, IL 60606-3182  
(312) 704-5300

**ADMINISTRATIVE SUPPORT**

The KDH School of Radiologic Technology has a strong administrative support base. The President and CEO of KDH is Mrs. Carol Dozier. The Medical Imaging Department Administrator is Mrs. Amy Kasper. The Program Director for the Radiology School is Mrs. Meghan Scudder. The KDH Board of Managers is also very supportive of the program. The Board Chair is Mrs. Paula Heiderman. With the support of this dedicated group of individuals, the radiology school is equipped with the resources necessary to provide a quality education for our students, thus enabling them to sit for and pass the ARRT national registry. Administrative support also makes allowances for school faculty to pursue continuing educational opportunities. This enhances the knowledge, competence, and proficiency of school faculty.

**GENERAL PROGRAM GOALS AND OUTCOMES**

The KDH School of Radiologic Technology, in accordance with JRCERT standards, has set the following general program goals and outcomes for its graduates:

**Goal #1:**  
**Students will be clinically competent.**  
*Outcomes for Goal #1:*

1. Students will apply their learned positioning skills to provide quality images.  
2. Students will select appropriate technical factors.  
3. Students will use proper radiation protection methods for their patients and themselves.

**Goal #2:**  
**Students will communicate effectively.**  
*Outcomes for Goal #2:*

1. Students will demonstrate appropriate oral communication skills.  
2. Students will demonstrate appropriate non-verbal communication skills.
3. Students will document appropriate exam information.

Goal #3: **Students will use critical thinking and problem solving skills.**
Outcomes for Goal #3:
1. Students will apply critical thinking skills during the examination to formulate rational decisions.
2. Students will assess their radiographic images according to proper established evaluation criteria to formulate improvements as necessary.

Goal #4: **Students will demonstrate professionalism.**
Outcomes for Goal #4:
1. Students will display a professional persona in the clinical setting.
2. Students will present a clean and organized work space for their customers.

Goal #5: **The KDH School of Radiologic Technology will meet program effectiveness requirements as set forth by the JRCERT.**
Outcomes for Goal #5:
1. Graduates will find employment within 12 months of graduation.
   (JRCERT benchmark of ≥ 75% over a five year average)
2. Graduates will pass the ARRT Radiography Registry on their first attempt.
   (JRCERT benchmark of ≥ 75% over a five year average)
3. Students who begin will successfully complete the program.
   (KDH benchmark of ≥ 80% each year)

The KDH radiologic technology program’s goals, outcomes and program effectiveness data can be viewed by visiting the Joint Review Committee on Education in Radiologic Technology (JRCERT) web site at https://www.jrcert.org/resources/program-effectiveness-data.

**ARTICULATION AGREEMENT WITH IVY TECH COMMUNITY COLLEGE**

The KDH School of Radiologic Technology offers a certificate in radiologic technology. However, in order to be able to sit for the ARRT national registry, all students graduating after January 1, 2015 are required to have, at a minimum, an Associate’s Degree. In order for our students to meet this mandate, The KDH School of Radiologic Technology is in an articulation agreement with Ivy Tech Community College.

Upon successful completion of the core classes required through Ivy Tech, successful completion of the KDH School of Radiologic Technology program, and successful passing of the HESI exit exam with a minimum score of 675 (this exam is administered toward the end of the student’s 2nd year in the program), Ivy Tech will grant the graduate an Associate of Applied Science Degree in Imaging Science.

Applicants who do not already possess an Associate’s Degree or higher and who would like to obtain their Associate’s Degree through Ivy Tech must contact Tricia Miracle at the Ivy Tech
Campus in Madison, IN and begin the process of completing the necessary pre-requisites. The KDH School of Radiologic Technology will not accept students who have not completed these pre-requisite courses, unless the applicant presents with a completed Associate’s Degree or higher. Ms. Miracle can be reached at (812) 265-2580 or toll free at (800) 403-2190. The Ivy Tech pre-requisite courses necessary to apply for admission to The KDH School of Radiologic Technology are as follows:

- Ivy Success Seminar (IVYT 1XX) (1-3 credit hours)
- English Composition (ENGL 111) (3 credit hours)
- College Algebra (MATH 136) (3 credit hours)
- Fundamentals of Public Speaking or Interpersonal Communication (COMM 101 or COMM 102) (3 credit hours)
- Intro to Psychology or Intro to Sociology (PSYC 101 or SOCI 111) (3 credit hours)
- Anatomy and Physiology I (APHY 101) (3 credit hours)
- Anatomy and Physiology II (APHY 102) (3 credit hours)
- Medical Terminology (HLHS 101) (3 credit hours)

Ivy Tech will accept transfer credits from a regionally accredited college. However, a minimum of 15 credit hours must be taken through Ivy Tech before they will grant the Associate’s Degree. Ms. Miracle will explain the details and any alternate acceptable courses to interested applicants. Note that all required college courses must be completed with a grade of “C” or better prior to starting the radiology technology program at KDH.

**NON-IVY TECH ASSOCIATE’S DEGREE**

Applicants who wish to acquire an Associate’s Degree from an institution other than Ivy Tech may do so. These applicants would then be eligible to apply directly to the KDH School of Radiologic Technology.

Any applicant who already possesses an Associate’s Degree or higher may apply directly to the KDH School of Radiologic Technology without needing to contact Ivy Tech.

Note that all college courses taken or degrees awarded must be through or from an institution accredited by an agency recognized by the U.S. Department of Education or the Council for Higher Education Accreditation and must be completed before starting the radiology school. Note also that applicants possessing an Associate’s Degree must have a minimum GPA of 2.0 or higher in order to be in application compliance.

**THE KDH SCHOOL OF RADIOLOGIC TECHNOLOGY ADMISSIONS PROCEDURE**

When a prospective student requests an application to the program, he/she is sent a program description and The KDH School of Radiologic Technology application. (The prospective student also has the option of printing PDF versions of the program description and application off of the
The prospective student must complete the application form and send it, along with official high school transcripts (or GED), official college transcripts, official ACT or SAT / SAT I scores (The minimum acceptable ACT score is a composite of 17 and the minimum acceptable SAT score is 820 [for critical reading and math combined].), vaccination records (see next paragraph for required immunizations), and a non-refundable $25 application fee to the attention of the Program Director at:

King’s Daughters Health
School of Radiologic Technology
1373 East State Road 62
One Bethany Drive
Madison, IN 47250

**Proof of the following vaccinations are required**: 2MMR, 2 Varicella, 1 Tdap. Obtain a 2 step TB test and have it read prior to shadow date or provide written proof of TB test that was obtained within the last 12 months and complete 1 step TB test. Proof of current vaccination for flu season required if shadowing during flu season (October through March).

The program director will send written acknowledgment of receipt of the application and will indicate which documents, if any, are missing. No action will be taken on applications until after the application deadline of April 1st. Applications will be accepted after the deadline only if spaces are available.

Each year, a new class begins July 1st.

**PRE-ADMISSION REQUIREMENTS AND PROCEDURES**

Each applicant for The KDH School of Radiologic Technology must:

1. Be a graduate of an accredited high school or have a GED certificate.
2. Submit a completed application no later than April 1st, 2019. The application must be the original; no faxed or duplicate copies will be accepted.
3. Submit three (3) letters of reference. These reference letters must not be from family or friends. They must be from individuals who can attest to the work ethic and pertinent attributes of the applicant. Ideal references will come from teachers, counselors, coaches, supervisors, pastors, etc.
4. Submit ACT or SAT (or SAT I) scores. These scores must be the original scores from the ACT or SAT or they can be provided on the high school transcripts. The minimum acceptable ACT score is a composite of 17. The minimum acceptable SAT score is 820 for critical reading and math combined.
5. Complete all necessary Associate’s Degree / college requirements. As was stated earlier, potential applicants must complete one of two Associate Degree routes before being considered for enrollment:

   **Route 1 – Associate’s Degree Not Completed**: Applicants not possessing an Associate’s degree or higher may complete the eight core college courses
through Ivy Tech at the Madison, IN campus or one of its associated regional campuses (see “Articulation Agreement with Ivy Tech Community College” section on pages 4 & 5) or may transfer credits for the core courses into Ivy Tech (with the knowledge that 15 credit hours must be completed through Ivy Tech) and may then apply to The KDH School of Radiologic Technology. Upon successful completion of The KDH School of Radiologic Technology certificate-based program and with successful completion of the courses required through Ivy Tech (which includes successfully passing the HESI exit exam toward the end of the student’s 2nd year within the program), the graduating student will receive an Associate of Applied Science Degree in Imaging Science from Ivy Tech in addition to the certificate from KDH.

Note: If all college course requirements are not completed by the application deadline of April 1st, 2019, proof of enrollment is required by April 1st, 2019. The course(s) must be completed by June 1st, 2019. If the applicant is selected for admission, an updated official transcript documenting the course grade must be presented to the program director by this June 1st, 2019 deadline. Failure to submit a completed transcript by the deadline would result in the student forfeiting their seat in the class.

Note: All Ivy Tech courses must be completed with a minimum grade of “C”.

**Route 2 – Associates Degree Already Completed:** Applicants possessing an Associate’s Degree or higher must submit official transcripts by April 1st, 2019. A minimum GPA of 2.0 is required.

6. Possess the physical ability to perform tasks required of radiographers, as set forth in the application.
7. Submit proof of the following vaccinations: 2 MMR, 2 Varicella and 1 Tdap. A 2-step TB test or provide written proof of TB test that was obtained within the last 12 months and complete 1 step TB test. Proof of current vaccination for flu season if shadowing during flu season (October through March).
8. Participate in a career observation day in the medical imaging department. Once the applicant has submitted their application they should contact the clinical instructor at 812.801.0575 to schedule their career observation date. These are scheduled Monday through Thursday from 8:00 a.m. to 12:00 p.m.
9. Submit a $25.00 non-refundable application fee. Make checks or money orders payable to KDH.
10. Participate in a PSB (Psychological Services Bureau) Health Occupations test, administered at the King’s Daughters’ Health campus. All applicants submitting a completed application will be notified of the available test dates and times. These test dates are scheduled for April each year.
11. Attend an interview with the admissions committee, if requested. Interviews are typically held in early May. Following the April 1st deadline, all applications are reviewed by the admissions committee of the program. Those applicants
that meet the published admissions standards are then evaluated in terms of academic potential. All applicants are rated on a point system based on their high school transcripts, college transcripts, ACT/SAT scores, and PSB scores. Based on this point system, interviews are granted to the top 12 scoring applicants. Interviews are held to determine the candidate’s motivation, ability to communicate, ability to work with others, and realistic orientation to the field of radiologic technology. Six qualified students will be selected from those interviewed. Two alternates will also be selected, in the event that all six selected students do not enter the program.

POST-ADMISSION REQUIREMENTS AND PROCEDURES
The program director sends letters of acceptance to each admitted applicant. In order to confirm their position in the class, the successful applicants will be required to:

1. Send a letter in writing accepting their seat with a non-refundable tuition deposit of $100.00. (The $100 deposit will count toward tuition. Tuition at this time is $3,500.00 for the first year of training and $4,000 for the second year of training. Each year’s tuition is payable on July 1st.)

2. Provide verification of the following immunizations and dates: MMR (times 2), Varicella (times 2), and Tetanus/Diptheria or Tdap vaccine (every 10 years), Proof of 3 Hepatitis B vaccinations must also be presented OR the Hepatitis B vaccination series can be received OR declined at KDH. Hepatitis B vaccinations received at KDH are free of charge to the student. Two TB/PPD screenings must also be completed. These are done at KDH during the first two weeks of school, free of charge to the student, if required.

3. Pass a urine drug screening test. A negative drug screening is mandatory for enrollment. The drug screening will be performed at KDH; free of charge to the student. A drug screen that reveals the illegal use of drugs will be deemed positive. The illegal use of drugs includes, but is not limited to, taking illegal drugs, taking a prescription drug without a prescription, or exceeding the dosage of over-the-counter medications.

4. Pass a background check performed by KDH which is performed free of charge to the student.

5. Purchase 3 - 5 student uniforms. Uniform type and color will be discussed at a class meeting that will be scheduled prior to the beginning of the program.

6. Purchase text books (through KDH) for use during training. The book fee is a one-time payment of approximately $1,700 and is payable July 1st of the first year of training.

Applicants who are not selected for admission to the program receive letters of denial. Any applicant who is not selected for admission may call the program director for input as to why they were not accepted into the program. Denied applicants may reapply for acceptance in the future. Prior acceptance or alternate status is no guarantee for future acceptance.

GRADUATION REQUIREMENTS
Once the student is accepted into the program, they will undergo a rigorous and fast-paced training in both the clinical and didactic arenas throughout the two year program. Graduation is held in June following program completion. All students are expected to attend graduation exercises. In order to graduate from the program, the radiography student must meet the following requirements for all academic and clinical assignments:

1. Complete each course with a minimum course average of 76%.
2. Maintain a 2.5 or higher cumulative GPA at the end of each semester.
3. All time owed must have been made-up. 
   *Note that students owing make up time after graduation may sit for the ceremony, but will not receive their certificate until all time owed is made up.*
4. Meet the clinical competency criteria. 
   *Clinical requirements include a pre-determined number of exam checkouts and competencies that must be passed before the student can graduate.*

A complete listing of all graduation requirements is issued to the students in their handbooks which they receive the first day of class.

There are also general policies, procedures, and rules that must be adhered to by all students. Failure to follow the policies, procedures, and rules of KDH and the radiology school may result in dismissal from the program. A listing of policies, procedures, and rules can be found in the student handbook.

**GRADING POLICY**

Each course’s syllabus will explain the grading policy for that course.

Each student's record is reviewed at each semester end by the school. Each semester lasts 16 weeks. There are six semesters total in the program; three in the first year and three in the second year. The student is given a grade report at the end of each semester. This report shows the student’s progress and is signed by the program director.

**Course grades will be computed using the following system:**

<table>
<thead>
<tr>
<th>NUMERICAL GRADE</th>
<th>LETTER GRADE</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>97 - 100</td>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>94 - 96.99</td>
<td>A-</td>
<td>3.75</td>
</tr>
<tr>
<td>91 - 93.99</td>
<td>B+</td>
<td>3.5</td>
</tr>
<tr>
<td>88 - 90.99</td>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>85 - 87.99</td>
<td>B-</td>
<td>2.75</td>
</tr>
<tr>
<td>82 - 84.99</td>
<td>C+</td>
<td>2.5</td>
</tr>
<tr>
<td>79 - 81.99</td>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>76 - 78.99</td>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>Below 76 -</td>
<td>F</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The cumulative GPA is achieved by averaging the sum of all course GPAs.
Students must pass each course with a 76% average or better as a prerequisite to continuance in the program. Failure to comply will result in immediate dismissal.

Students must maintain a 2.5 cumulative GPA at the end of each semester. Failure to comply will result in immediate dismissal.

Students who do not meet clinical competency each semester will have their clinical grade dropped to a “D” and a grade percentage of 76% will be the final clinical percentage for that semester. Any student who fails to meet competency in any two semesters will be expelled from the program.

Please note that all student records, including their grades, are kept confidential and secure according to the Family Education Rights and Privacy Act (Buckley Amendment).

**TUITION & BOOKS**
The fee for tuition is $3,500 for the first year of training. For the second year of training, tuition is $4,000. Tuition is payable July 1st of each school year. All students will purchase the necessary books for the 24 month program through KDH for a fee of approximately $1,700.00 which is payable July 1st of the first year of training.

**REFUND POLICY**
A 100% refund of the first year tuition will be granted if the student decides to withdraw from the program on or before the first day of the school year. A 75% refund of the first year tuition will be granted if the student decides to withdraw from the program within the first four weeks of the first school year. No refunds will be granted after the fourth week of the first year.

**STUDENT SERVICES**

**FINANCIAL AID**
The KDH School of Radiologic Technology does not participate in student financial aid programs. The cost of tuition and books is the responsibility of the student. The school does participate in the Workforce Investment Act of Indiana. Financial assistance may be found at www.fastweb.com.

**STUDENT COUNSELING**
Students seeking personal counseling are welcome to talk to school faculty members. All discussions will be kept confidential. KDH also offers personal counseling sessions through EAP (the Employee Assistance Program) for employees and students. Initial consults are free of charge to the student.

**DISABILITIES**
Students with disabilities may request accommodations in accordance with applicable federal (Americans with Disabilities Act) and state laws.

**DISCOUNTS**
KDH Radiology Students and their immediate family (spouses and children) are eligible for a 25% discount on all KDH in patient and out patient services (for fees not covered by insurance). This
discount does not extend to physician service fees.

**TRANSFER, PART TIME, or ADVANCED PLACEMENT**
The KDH School of Radiologic Technology does not accept transfer, part-time or advanced placement students.

**PROGRAM HOURS**
The program is considered full-time and students are scheduled for six to eight hours a day, five days a week. Clinical hours of attendance will vary in accordance with the individual student’s rotational assignment. Students will be required to complete evening and weekend clinical rotations in order to obtain necessary trauma competencies as well as to increase confidence and independence. In accordance with Accreditation Standards of the Joint Review Committee on Education in Radiologic Technology (JRCERT) students are not permitted to be scheduled for more than ten hours per day or 40 hours per week in total program activities (classes, labs, and clinical rotations). KDH radiology students spend a total of approximately 1,500 hours in the didactic setting and 2,200 hours in the clinical arena.

Each school year begins on July 1 and ends approximately June 30. The program is a continuous 24 months of study leading to a certificate.

The hours for each rotation are as follows:

- **All class days -** 0900 to 1600

- **Hospital rooms 1, 2, 3, MCMB (Main Campus Medical Building), weekends, special imaging rotations, pt. care, pt. transport, and venipuncture -** 0800 to 1600

- **CDMB (Clifty Drive Medical Building)/CCC (Convenient Care Clinic) -**
  - 0900 to 1500
  - & 1300 to 2030
  - & 1500 to 2030

- **DTMB (Downtown Medical Building) -** 0900 to 1700

- **Evenings -** 1600 to 2200

The first 6 weeks of training will include clinical rotations which will be scheduled Monday through Friday during daytime hours (8a to 4p) at the KDH main campus.

Beginning in the 7th week of school, clinical rotations will continue and the CDMB/CCC & DTMB rotations will be added once every 6 weeks. Rotations will continue to be set up on a Monday through Friday basis.
Beginning in the 12th week of training, the patient care and patient transport rotations will be added once every 6 weeks for a period of 12 weeks to enhance the students’ knowledge and experience in patient interaction and basic patient care procedures.

Between the 6th month of training and the 18th month of training, an evening and weekend rotation is added once every six weeks in order to assist the student in acquiring mandatory trauma competencies.

Beginning in the 8th month of training, students will be scheduled to observe in imaging procedures performed in the surgical suite at KDH once every six weeks until their 13th month when they engage in imaging procedures performed in the surgical suite once every six weeks for the remainder of their training.

At the end of the 12th month, the DTMB rotation is dropped for six months and will resume two days every six weeks between the 18th and 24th months of training.

Beginning in the 13th month of training, a CT rotation is added once every six weeks and will remain as an implemented rotation throughout the entire second year of training.

At the end of the 15th month of training, a venipuncture rotation is implemented once every six weeks for 12 weeks and the student will begin special modality rotations to include radiation therapy, nuclear medicine, ultrasound, MRI.

In the last six months of training, the evening and weekend rotations are dropped and all other rotational assignments will be completed in a Monday through Friday fashion.

All didactic classes are held at KDH. Clinical education is conducted at the facilities of the KDH Hospital, the KDH Main Campus Medical Building, the KDH Clifty Drive Medical Building / Convenient Care Clinic, and the KDH Downtown Medical Building. The KDH School of Radiologic Technology includes opportunities for students to rotate through several out-patient facilities because these rotations allow students the opportunity to explore career options in different radiology environments, such as general doctors’ offices, orthopedics (with an emphasis on extremity and spine radiography), and urgent care. The hospital environment allows students to gain experience in routine, portable, trauma, fluoroscopic, and surgical imaging procedures. Each student is scheduled to spend an equal amount of time in the assigned clinical rotations. This ensures a fair and impartial education for all students.

Students are routinely scheduled for three days of didactic courses and two days of clinical rotations per week for their first four weeks of training. Thereafter and for the remainder of the program, students are scheduled for two days of didactic courses and three days of clinical rotations per week, with the exception of the 13th month of training in which no didactic classes are held. Students are focused only on their clinical rotations during this time. Please note that students are responsible for their own transportation to and from all didactic and clinical rotation assignments.
ATTENDANCE POLICY
The didactic, laboratory, and clinical components of instruction are essential to properly prepare all students for entry into the profession. To meet this objective, attendance and participation in all classroom, laboratory and clinical sessions is required.

VACATIONS AND HOLIDAYS
Vacation time is scheduled throughout the two years for all students. Students must take their vacation during the scheduled periods and may not exchange them for other time periods. This policy is to assure that all students receive all material in the appropriate sequence.

Students receive six (6) holidays per year:
   New Year’s Day
   Memorial Day
   Independence Day
   Labor Day
   Thanksgiving Day
   Christmas Day

Students are also scheduled to be off:
   Good Friday
   The Friday following Thanksgiving
   Christmas Break (approximately 1 week)
   One week after the completion of each semester

In addition, NO student will be scheduled for Easter, Memorial Day, Labor Day, or Thanksgiving weekend

PERSONAL BANK HOURS
Each new first year student will begin with a clean attendance record. 40 hours of time will be placed in their “bank.” When a student is absent, tardy, leaves early, etc., the time missed will be removed from their bank. Students will be given updated attendance reports at the beginning of each month. If a student exceeds their 40 hours of “bank” time, all hours exceeding 40 will have to be made up on the student’s time off, at the discretion of program faculty. At the end of the first year, 40 new hours will be added for the second year of training. No hours can be carried over from the first year. No student will be allowed to add hours to their bank, with the exception of having time awarded in the event that a student meets semester competency early. There is an extended absence policy and an excessive absenteeism policy outlined in the student handbook which is issued to students on the first day of class.

OUTSIDE EMPLOYMENT
Employment outside the program is permitted. Students are encouraged to realize that outside employment must not interfere with their education. Students are expected to regard their education as their first priority and to be on time regardless of the hours of the outside job. The working
student should notify his or her employer that their school hours change periodically and that they will be assigned to Saturday and Sunday rotations at various times throughout their training.

**RADIATION MONITORING**

Indiana State Law demands that students wear a personnel dosimetry badge at all times while in the clinical setting in order to monitor the radiation dose the student receives.

The medical imaging department, prior to the beginning of the student’s clinical education, provides each student with an OSL dosimeter. It is to be worn at all times while in the clinical setting. The dosimeter must accompany the student to any clinical rotation.

The dosimeter packet will be exchanged for a new one on a monthly basis for reporting purposes. As the radiation monitoring reports are received, the program director will show them to the students. It is the responsibility of each student to review their readings and sign the report. The student reports are filed in the program director’s office.

The radiation safety officer (RSO) reviews the monthly dosimeter reports. If any student’s effective dose exceeds the NCRP (National Council on Radiation Protection and Measurements) recommendations, the RSO will notify the program director. The program director will then schedule a meeting with the student to discuss justification of this additional radiation exposure and proper documentation will be made. The student will be counseled on how to keep self-exposure to a minimum.

Total cumulative effective dose reports will be given to or mailed to each student on an annual basis.

**RADIATION SAFETY RULES FOR CLINICAL OBSERVATION**

Students who follow radiation safety rules should never receive an excessive monthly effective dose and should stay well below the annual limits. The rules of radiation protection are included in the student handbook. Instruction concerning these rules is disseminated to the students during the first week of class and before the student begins their clinical rotations. Leaded protection apparel is provided for student use by KDH.

**Failure to comply with radiation safety regulations will result in disciplinary action.**

Adherence to these rules will help to protect student radiographers from the biological effects caused by ionizing radiation. They will also enable the pregnant radiography student to continue present duties with the assurance that the fetus is well-protected from radiation effects.

**PREGNANCY POLICY**

Declared Pregnant Student
Students who become pregnant during the 24 month educational program at The KDH School of Radiologic Technology have the option of “voluntarily” disclosing their pregnancy to program officials without modification of their clinical rotations. If the student chooses to disclose their pregnancy to program officials, a “Program Notification” form must be completed. This form is available through the program director’s office.

Once declared, pregnant students have three options from which to choose concerning their pregnancy:

Option #1: The student will continue in the program, with a signed written release from her physician stating she may continue unrestricted in the program, adhering to the rules and regulations of a declared pregnant student.

Option #2: The student may withdraw from the program and return the following year, provided space is available. Note is made that special provisions cannot be made to “hold” a seat until the student returns.

Option #3: The student also has the option for written withdrawal of declaration.

The KDH School of Radiologic Technology follows the Nuclear Regulatory Commission (NRC) regulations for pregnant students by adhering to their policy. Pertinent policy information is made available in the student handbook.

To assure that the radiation dose to the fetus does not exceed the recommended limits, pregnant radiation workers are urged to declare their pregnancy to the institution and Radiation Safety Officer as soon after conception as possible. An additional radiation monitoring device will be issued to be worn at waist level for fetal exposure monitoring.

Students who voluntarily disclose their pregnancy, will be required to read the third revision of the U.S. NRC Guide 8.13, “Instruction Concerning Prenatal Radiation Exposure”; the “NRC Definitions, Guidelines, and Requirements” handout for the declared pregnant student; and the KDH Medical Imaging Environment of Care Policy 801, “Personnel Radiation Monitoring” which are located in the program director’s office. The pregnant student will be given the opportunity to ask questions of the Radiation Safety Officer regarding its content. She will be required to sign the Statement of Understanding of the Radiation Guidelines for Pregnant Students. Signing of this document signifies that the pregnant student has read and understands the information and her responsibility as a “declared pregnant student.”

It is the practice of this program to educate, offer, and encourage radiation protection to all workers and to all students; therefore, KDH and any of its associates will not assume liability for the mother
or the unborn child in case of pregnancy. The pregnant student’s rights as a “declared pregnant student” only begin with the official notification to program officials.

**DRESS CODE**

1. Uniforms (scrubs, socks, and shoes) are purchased by the student. Uniform type is selected by program officials. Uniforms must be clean and scrubs must be neatly pressed. First impressions are important when giving patient care. If a student arrives in the clinical setting or in the classroom setting with wrinkled scrubs or dirty uniforms, they will be sent home to change. The time missed will be removed from the student’s bank of hours.

2. ID badge and OSL dosimeter. (The ID badge must be worn by the student at all times while on KDH premises. The OSL dosimeter must be worn at all times at collar level in the clinical setting.)

3. The student must present with a watch in the clinical setting. The watch must have a means of tracking time down to seconds. (A digital watch is preferred for accuracy.)

4. Fingernail polish must be clear or pale color. Artificial nails, gels, stickers, and/or tips are not permitted.

5. Natural fingernails must be kept short (the nail tip should be no more than ¼ of an inch in length). Nails must be clean and well manicured.

6. Hair may not fall below the shoulders unless tied back in the clinical setting. It must be neatly combed and clean.

7. Jewelry is not permitted while in uniform except for rings, earrings, and necklaces of modest design and appearance. Earrings must be post-type or a small hoop with a maximum of ½ inch diameter. Jewelry in the nose, face, tongue and any other exposed area besides the ears is not acceptable. (If any of these unacceptable piercings exist, the jewelry must be covered with a band-aid or removed during time spent at KDH.) In addition, no more than three piercings in each ear are allowed. Spikes and gauging are not acceptable.

8. Perfume and cologne shall not be worn by student radiographers.

9. No visible tattoos are allowed.

10. Facial hair such as beards, mustaches, or sideburns must be neat, clean and well-trimmed. No “scruff” is allowed.

**SUPERVISION**

The student will be under either **DIRECT** or **INDIRECT SUPERVISION** at all times in the clinical setting.

**DIRECT SUPERVISION** means that the Clinical Instructor or a qualified technologist is physically present in the room assisting and/or supervising the performance of the radiographic procedure. Once the student has successfully completed certain competencies, they may perform that exam/procedure under indirect supervision.

**INDIRECT SUPERVISION** means that the student may perform the procedure independently without an instructor or technologist present in the room. However, an instructor or qualified technologist must be immediately available in the area adjacent to where the student is; they may
not be performing an exam on another patient. A senior student who has completed competency on an exam **CANNOT** be utilized for a junior student as either direct or indirect supervision.

**REPEAT POLICY**

To ensure that patient radiation exposure is kept to a minimum and to comply with JRCERT Standards and Indiana State Regulations, students may not repeat radiographs for any reason without direct supervision.

**IF A STUDENT MUST REPEAT AN IMAGE, AN INSTRUCTOR OR TECHNOLOGIST MUST BE PRESENT IN THE ROOM. (THE STUDENT MUST MAKE THE REPEAT UNDER DIRECT SUPERVISION.) THE INSTRUCTOR OR TECHNOLOGIST MUST CHECK THE STUDENT’S POSITIONING AND TECHNIQUE BEFORE THE REPEAT EXPOSURE IS MADE.**

**STUDENT SAFETY**

It is mandatory for all new students to attend KDH orientation. While there, safety topics such as emergency preparedness and substance abuse are discussed. These topics’ protocols and procedures are also disseminated to the students. Copies of the KDH substance abuse policy as well as the KDH harassment policy and pertinent information from the KDH infection control policy are included in the student handbook.

**INSURANCE COVERAGE**

Health insurance coverage is not offered to radiologic technology students, and is not required.

**SCHOOL CALENDAR**

**July 2018 to June 2019**

Although the following schedule will not pertain to the incoming class in 2019, it will give the applicant an idea as to how the school calendar usually progresses from year to year:

- July 2, 2018 -
- July 4, 2018 -
- September 1 - September 3, 2018 -
  - October 12, 2018 -
- October 13 - October 21, 2018 -
  - October 22, 2018 -
- November 22 - November 25, 2018 -
- December 22, 2018 - January 1, 2019 -
  - February 15, 2019 -
- February 16 - February 24, 2019 -
  - February 25, 2019 -
- April 19 – April 21, 2019 -
  - 1st / 4th semester starts
  - Independence Day Holiday - no school
  - Labor Day break - no school
  - 1st / 4th semester ends - clinical comps due
  - end of semester break - no school
  - 2nd / 5th semester starts
  - Thanksgiving break - no school
  - Christmas & New Year break - no school
  - 2nd / 5th semester ends - clinical comps due
  - end of semester break - no school
  - 3rd / 6th semester starts
  - Easter break - no school
May 25 - May 27, 2019 - Memorial Day break - no school
June 19, 2019 - 6th semester ends - clinical comps due - Graduation!
June 21, 2019 - 3rd semester ends - clinical comps due
June 22 - June 30, 2019 - end of semester break - no school

COURSE SCHEDULE

The following schedule is the course schedule for the six semesters of the program:

1st YEAR - 1st SEMESTER
Anatomy & Physiology I
Radiographic Procedure & Positioning I
Orientation & Basic Radiation Protection
Patient Care
Principles of Radiographic Exposure I
Labs
Clinical Education I

1st YEAR – 2nd SEMESTER
Anatomy & Physiology II
Radiographic Procedure & Positioning I / Radiographic Procedure & Positioning II
Medical Terminology
Patient Care / Radiation Physics I
Principles of Radiographic Exposure I
Labs
Clinical Education II

1st YEAR – 3rd SEMESTER
Anatomy & Physiology II
Radiographic Procedure & Positioning II
Medical Terminology
Radiation Physics I
Principles of Radiographic Exposure II
Labs
Clinical Education III

2nd YEAR – 4th SEMESTER
Medical Ethics & Law
Imaging
Pediatrics / Pharmacology
Principles of Radiographic Exposure II
Radiographic Procedures & Positioning III
Labs
Clinical Education IV
2nd YEAR – 5th SEMESTER
Radiation Physics II
Imaging
Radiation Biology & Radiation Protection
Principles of Radiographic Exposure II / Radiographic Pathology
Radiographic Procedure & Positioning III / Radiographic Procedure & Positioning IV Labs
Clinical Education V

2nd YEAR – 6th SEMESTER
Specialized Imaging
Radiographic Pathology
Radiographic Procedures & Positioning IV Labs
Radiation Biology and Radiation Protection / Registry Review
Clinical Education VI

CURRICULUM / COURSE DESCRIPTIONS
The following are course descriptions for all required classes offered at KDH:

COURSE: ORIENTATION AND BASIC RADIATION PROTECTION
This course is designed to acquaint the new student with goals, philosophies, and organization of the radiography program and the radiology department, including radiation safety. Students will learn about the concepts of customer service excellence as well as continuous quality improvement in order to become a vital member of the medical team. An appreciation of radiologic technology will be established through an understanding of medical history, the evaluation of radiologic technology, and the professional organizations. The knowledge of career advancements within radiologic technology will enable the student to establish and maintain high goals. Students will learn about the potential danger of radiation exposure as well as the methods/principles of protecting the patient and the occupational worker. Students will also complete an American Heart Association Basic Life Support class, receiving a two-year accreditation. The general intent of this course is to set the pace for the student's professional growth in radiologic technology. Credit Hours: 2

COURSE: ANATOMY AND PHYSIOLOGY I AND II
Radiographers are expected to perform examinations with detailed knowledge and understanding of the human body and its structure and function. The radiographer must have an in depth knowledge of the skeletal system, along with the other systems of the human body and understand how they are interrelated. The anatomy & physiology of the parts of the body as a whole play an important role in the radiographic procedures and the resultant images. The study of body structure, including the size, shape, and composition as well as body functions will be included in these comprehensive courses. Completion of these two courses will help the student to interpret requisitions for radiographic procedures, to properly position the part, and to recognize the structures and organs visualized on the images.

- Anatomy I explores the general organization and planes of the body. Additional topics
include basic chemistry, cells, tissues, membranes and the skeletal system.
- Anatomy II topics include the integumentary, muscular, nervous, endocrine, vascular, lymphatic, digestive, urinary, and reproductive systems. Special senses, blood, heart, body temperature, and metabolism are also covered.

Anatomy & Physiology I Credit Hours: 2
Anatomy & Physiology II Credit Hours: 3

**COURSE: RADIOGRAPHIC PROCEDURES AND POSITIONING I**
This course is designed to assist the student in acquiring the skill in procedures and positioning of the various parts of the body for the proper demonstration of the structure(s) of interest. Students learn basic positioning fundamentals including osteology, surface landmarks, arthrology, bony landmarks, body relationship terms, and body movement. The student will learn the many different projections that are required in radiography of the upper and lower limb. Each section includes a review of important anatomy along with detailed information in conducting the procedure. A good understanding of procedures and positioning is necessary to produce diagnostic images for interpretation by a radiologist. Credit Hours: 3

**COURSE: RADIOGRAPHIC PROCEDURES AND POSITIONING II**
Radiographic Procedures and Positioning II is designed to help the student acquire the skill in positioning the various parts of the body for the proper demonstration of the structures of interest. This course is an important element in the radiology student's success in procedures and positioning of the chest, bony thorax, abdomen, femur, pelvic and shoulder girdles, digestive, and urinary system. Mobile radiography of the chest, abdomen, infant, and extremities is also covered. Credit Hours: 4

**COURSE: RADIOGRAPHIC PROCEDURES AND POSITIONING III**
This course is designed to assist student radiographers in achieving clinical competency of spinal column diagnostic imaging. This course begins with a comprehensive instruction of spinal anatomy. Then it progresses to detailed instruction in regards to performing the many projections and positions utilized in imaging the spinal column. Both trauma and non-trauma situations will be examined and patient safety will be emphasized. Credit Hours: 2

**COURSE: RADIOGRAPHIC PROCEDURES AND POSITIONING IV**
This course is designed to help the student radiographer acquire proficient skill in positioning and imaging of cranial and facial anatomy. The course will begin with a comprehensive instruction of cranial and facial anatomy followed by discussion of the lines and planes of the skull that will assist the student in positioning the head appropriately. After this, there will be detailed instruction in regards to performing the many projections and positions utilized in imaging the skull and the facial bones. Both trauma and non-trauma situations will be examined and patient safety will be emphasized. Credit Hours: 2

**COURSE: PATIENT CARE**
The Patient Care course is designed to acquaint the student with patient care procedures and techniques used in the general care of the radiology patient. Many specific exams involving direct patient care, universal precautions, and infectious diseases will be discussed in detail. Topics to be
explored include patient safety, assessment, communication, infection control, surgical asepsis, vital
signs, basic EKG monitoring, medical emergencies, and trauma considerations. This course also
explores special topics related to pediatric and geriatric patients as well as care of patients during
specialized procedures. Students will have demonstrations and competencies and will practice the
principles and procedures outlined in the topics above. Credit Hours: 3

**COURSE: MEDICAL TERMINOLOGY**

For radiographers to effectively function in the clinical environment, they must be capable of
reading, writing, and speaking medical language. Effective communication will enhance the
radiographer's ability to work in the health care environment resulting in quality care of patients. The
intent of this course is to introduce medical abbreviations, symbols, and terminology which the
radiographer will encounter during their professional career. Upon completion, the student will be
capable of recognizing, interpreting, spelling and pronouncing medical terms as they are used in the
clinical setting. Credit Hours: 3

**COURSE: PRINCIPLES OF RADIOGRAPHIC EXPOSURE I AND II**

Upon completion of these courses, the student will employ appropriate technical factors (mAs, KvP,
FSS, SID, OID, etc.) and proper accessory devices (grid, IR, immobilization devices, beam
restriction, lead shields, etc.) in order to keep patient dose at a minimum while producing optimal
radiographs. A variety of radiographic mathematical formulas are taught that will help the student
radiographer to eliminate the “guessing game” while clinically employing the concepts taught in
these courses.

- Principles of Radiographic Exposures I is a basic look at the many factors contributing
to image quality.
- Exposures II examines the same factors in more detail while adding the quality
assurance standards of the equipment used to produce diagnostic images.

Principles of Radiographic Exposure I Credit Hours: 2
Principles of Radiographic Exposure II Credit Hours: 5

**COURSE: RADIATION PHYSICS I AND II**

Radiation in its many forms has been a natural phenomenon since the beginning of time. Life on
earth has always been subjected to these radiations and, in natural quantities, has uniquely adapted to
their effects. When biological organisms are subjected to radiation, the effects can range from
minimal to substantial. X-radiation is the tool of image production and therefore the radiographer
must possess the knowledge of the potential hazards inherent in each exposure. It is the intent of
these courses to create an understanding of the atom, different radiation energies, the production of
radiation, the transformations that occur, and the concepts of particular laws of science which govern
the world of physics. In addition, units of measuring energies as well as the equipment involved in x-
ray production shall be examined. Upon completion of these courses, the student will understand the
importance of keeping exposure to a minimum through knowledge of radiation energies, equipment,
and safety features.

- Radiation Physics I describes the fundamental nature, properties, and production of x-
rays. The structure of the atom, basic science terminology, the periodic table,
electromagnetic spectrum, interactions of ionizing radiation with matter, and
electrostatics are explored.
- Radiation Physics II incorporates the fundamentals learned in Physics I with further exploration into the principles of operation of radiographic equipment and circuitry.

Radiation Physics I Credit Hours: 3
Radiation Physics II Credit Hours: 2

**COURSE: PHARMACOLOGY**
Advances in medical imaging have created tremendous changes in the skill and knowledge required of the radiographer today. This course is designed to enhance the knowledge base of the student in the area of pharmacology and drug therapy. It will assist in preparing the student for the health professional’s role in the assessment, planning, implementation, and administration of the various drugs utilized in a medical imaging department. This course educates the radiographer as to the classifications of contrast medias used in medical imaging along with a basic understanding of their interactions, the correct means of administration, and contra-indications. All technologists must have a thorough understanding of contra-indications for contrast media usage and identify those exams with which these contra-indications exist. Pharmacology and venipuncture technique are taught in this course and basic vascular anatomy is reviewed. Legal and ethical issues are also visited. This course’s basic intent is to equip the student radiographer with the knowledge necessary to correctly administer imaging drugs to the patient and to protect the patient during the administration and post-administration periods. Credit Hours: 1

**COURSE: PEDIATRICS**
Understanding children and acknowledging the need for an approach on a “different” level is the essential ingredient for the successful diagnostic imaging of children. Two important areas covered during this course are pediatric communication skills and pediatric immobilization. Although pediatric imaging and adult imaging have many similarities in positioning basic projections, the radiographer must adapt and practice the following when performing an x-ray procedure on a pediatric patient: an open mind, patience, creativity, and the ability to understand a child’s behavior as it relates to age. The student radiographer will learn about warning signs and symptoms of abused or neglected children in this course. Pathology commonly seen in children will also be discussed as will x-ray examinations generally performed only on pediatric patients. In addition, this course will prepare the student for important protocol related to pediatric imaging, such as radiation protection practices, patient motion control, and child contrast media dosages. Credit Hours: 1

**COURSE: SPECIALIZED IMAGING**
This course is designed to introduce the student radiographer to advanced special imaging procedures. Surgical Procedures and sterile techniques are included at the beginning of this course. This is followed up by in-depth discussions concerning long bone measurement and bone age imaging as well as imaging of the salivary glands, the reproductive system, the circulatory system, the central nervous system (myelography), and joints (arthrography). Specialized equipment and supplies, along with pertinent patient care methods for these special exams are reviewed. Mammography, Cardiac Catheterization, MRI, Nuclear Medicine, PET scanning, Ultrasound, Bone Densitometry, Radiation Oncology, cross-sectional anatomy, and CT are also introduced in this class. The intent of this course is to allow the student radiographer the opportunity to explore beyond entry level medical imaging into the multiple modalities offered in the field today. Credit Hours: 3
COURSE: MEDICAL ETHICS AND LAW
This unit will provide the student with respect for interpersonal relationships, along with moral and ethical responsibilities to increase effective communication and empathy for the patient. The medico-legal considerations will assist the student in utilizing ethical principles and practicing their profession in a safe and legal manner. This course will introduce the following documents to the student radiographer: KDH’s “Patient’s Rights”, The Code of Ethics for R.T.s, and the ARRT Standards of Ethics. Credit Hours: 2

COURSE: RADIOGRAPHIC PATHOLOGY
This unit will acquaint the student with various pathologic conditions of the body and their impact on the radiographic process. The basic knowledge of disease processes will enable the student to produce optimum diagnostic radiographs and ensure effective patient care for the seriously ill or traumatized patient. The intent of this course is to assist the student in understanding various pathologic and disease entities; how to care for the patient who is afflicted with said pathologies; and how to adjust radiographic technical factors based on the existence of pathological conditions. Credit Hours: 3

COURSE: RADIATION BIOLOGY AND RADIATION PROTECTION
This unit is designed to provide the participant with knowledge pertaining to the biological impact of exposure to ionizing radiation. It also will serve to instruct the class on how to protect themselves, their patients, and their co-workers from radiation-induced biological damage. Known radiation dangers, public accountability, and increased government intervention dictate the radiographer to have a strong understanding of these principles in order to safely practice the art and science of radiology. Principles and concepts explaining the basic interaction of radiation with matter, subsequent effects, units of measurements, dose equivalents, and exposure monitoring are included. In addition, a thorough understanding of dosimetry reporting along with proper usage of radiation limiting devices and proper exposure technique selection shall be instructed. The intent of this course is to instill an awareness of good radiation protection standards as well as to create a career-long dedication to faithful practice of these standards among course participants. Credit Hours: 3

COURSE: IMAGING
This course is designed to instruct the student concerning a variety of imaging procedures that they will likely encounter throughout their careers. The student must comprehend the principles of the various imaging modalities available to the profession. The relationships of imaging systems are intertwined and overlap in almost all systems. The student should be cognizant of the commonalities that exist in the production of a radiographic image regardless of the system used. The intent of this course is to describe the various imaging processes so that application of principles to produce optimum diagnostic radiographs will be utilized. This course begins with an introductory investigation of tomographic procedures. Then, automatic exposure control (AEC) and fluoroscopy are taught in a comprehensive manner. The course ends with an in-depth discussion of digital imaging to include CR, DR, and PACS. It is important that the student understands the basic principles of operation as well as advantages and disadvantages of all these systems. Credit Hours: 4

COURSE: REGISTRY REVIEW
This course is designed to aid the student in preparing for the ARRT registry through review of material previously studied. It is the intent that information for this review be attained by the student throughout the two-year program. This course will utilize a variety of review material and computer-assisted testing (CAD) in order to allow the student the opportunity to recall and apply previously learned information. This course will also allow the student the opportunity to realize any didactic content for which they may need remediation. Credit Hours: 5

**COURSE: CLINICAL EDUCATION I:**
The student is introduced to and becomes familiar with the clinical setting during their first semester. The student will begin their participation in the medical imaging department in a limited capacity as their initial clinical rotations will primarily involve observation of procedures and tasks. Following successful completion of modality checklists, didactic material, and laboratory evaluation, the student will gradually begin to perform some radiographic examinations and duties under the direct supervision of a radiologic technologist. This progressive approach is a necessary feature of developing a competency-based clinical education for the student. Credit Hours: 11

**COURSE: CLINICAL EDUCATION II:**
This is a continuation of Clinical Education I and the student will be expected to demonstrate a higher level of participation in the medical imaging department through the routine performance of procedures and tasks. Following successful completion of didactic material and laboratory evaluation, the student begins to perform more difficult exams under the direct supervision of a technologist. The student will also begin clinical competency testing to establish proficiency for certain procedures. Following successful completion of a clinical competency evaluation for an exam, the student may begin performing that procedure with indirect supervision. Credit Hours: 12

**COURSE: CLINICAL EDUCATION III:**
This is a continuation of Clinical Education I and II in which the student is expected to demonstrate an even more advanced level of participation in the medical imaging department. The student continues the clinical competency testing process and the successful passing of these tests will allow them to perform these procedures with indirect supervision. Credit Hours: 12

**COURSE: CLINICAL EDUCATION IV:**
This is a continuation of Clinical Education I, II, and III. The student will begin to develop independent decision-making skills to prepare them for the role of a radiologic technologist. The student continues the clinical competency process and should be performing many exams with indirect supervision. Credit Hours: 14

**COURSE: CLINICAL EDUCATION V:**
This is a continuation of Clinical Education I, II, III, and IV. The student should be developing and establishing their decision-making skills at a high level of independence. The student will be performing most exams with indirect supervision. Credit Hours: 12

**COURSE: CLINICAL EDUCATION VI:**
This is the final section of clinical education. The student will complete the clinical competency process; all required clinical competency exams must be completed by the end of this course. The
student will fine-tune their clinical skills as they prepare to enter the work force as an entry-level technologist. Credit Hours: 12

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