SANFORD HEALTH RADIOLOGY PROGRAM

Sanford Health Radiology Program of Sanford Health, North Dakota, offers a 24-month program in radiology, affiliating with NDSU and University of Jamestown for fulfillment of the four-year baccalaureate degree in Radiologic Science.

The Field

Radiologic technology is the science that deals with the use of x-rays for diagnostic or therapeutic purposes in medicine. Radiologic technologists or radiographers are the terms applied to individuals qualified to use x-rays to produce images of the parts of the body for interpretation by a physician known as a radiologist.

The complex nature of disease processes involves multiple imaging modalities. Although an interdisciplinary team of radiologist, radiographers, and support staff plays a critical role in the delivery of health care services, it is the radiographer who performs the radiographic examination that creates the images needed for diagnosis. Radiography integrates scientific knowledge and technical skills with effective patient interaction to provide quality patient care and useful diagnostic information.

Radiographers must demonstrate an understanding of human anatomy, physiology, pathology, and medical terminology.

Radiographers must maintain a high degree of accuracy in radiographic positioning and exposure technique. They must maintain knowledge about radiation protection and safety. Radiographers prepare for and assist the radiologist in the completion of intricate radiographic examinations. They prepare and administer contrast media and medications in accordance with state and federal regulations.

Radiographers are the primary liaison between patients and radiologists and other members of the support team. They must remain sensitive to the physical and emotional needs of the patient through good communication, patient assessment, patient monitoring, and patient care skills.

Radiographers use professional and ethical judgment and critical thinking when performing their duties. Quality improvement and customer service allow the radiographer to be a responsible member of the health care team by continually assessing professional performance. Radiographers embrace continuing education for optimal patient care, public education, and enhanced knowledge and technical competence.
Career Opportunities

Currently there are job openings in all areas of the country, both rural and metropolitan. Salaries are competitive with other healthcare professions that require similar levels of education.

Radiographers have outstanding upward mobility. After further education, you may advance to areas such as nuclear medicine, interventional radiography, radiation therapy, sonography, education and management. You will have opportunities for experience in CT, MRI, quality assurance and mammography (optional), during the internship.

If you are interested in the sciences and have a strong desire to help people who are ill, you may do well in radiography.

Although Sanford Health Radiology Program has no formal placement service, we do offer assistance with employment applications, resumes and interviewing skills. Job openings are posted as employers notify the program when positions are available.

Earning Potential

According to a recent survey, Radiographer’s entry level wage averages $34,000-$44,000, depending on the location and facility.

Mission Statement

It is the mission of Sanford Health Radiology Program to provide a quality education designed to prepare a knowledgeable and caring professional radiographer who is cognizant of and sensitive to the health needs of individuals and communities in a variety of health care delivery modalities.

To fulfill this mission, the program strives to prepare self-assured and service-oriented health care providers who, by virtue of critical thinking, life-long learning and ethical values, will promote safe quality patient care.

The mission of Sanford Health Program of Radiology is to provide the student with a broad base of knowledge plus specialization courses necessary for careers in health care organizations.
Goals

Program goals reflect the operation of the mission of the program, the philosophy of the faculty, and the student outcomes of the curriculum.

The student will:
1. Demonstrate the knowledge necessary for a clinically competent, safe entry-level radiographer.
2. Model effective, interactive communication.
3. Employ critical thinking and problem solving for decision-making in radiology practice.
4. Accept responsibility for ongoing professional growth and continued learning.

Program Outcomes:
- The student will be able to produce radiographic images of diagnostic quality
- The student will select appropriate technical factors for optimal images
- Students will apply ALARA principles to ensure radiation protection for all concerned
- Students will be competent in patient communication and interaction in the clinical setting
- Students will demonstrate effective critical thinking skills and problem-solving to clinical application
- Students will apply critical thinking to non-routine/trauma patients for safe, optimal patient care and images
- Students will demonstrate professional behaviors necessary for an entry-level radiographer
- Students will accept responsibility for continuing the process of professional and personal growth

Program effectiveness:
- Employer satisfaction with graduates
- Graduate satisfaction and post-one year graduate satisfaction with the program
- Completion of the program within the twenty-four months
- Employment within twelve months of graduating from the program
- Successful passing of the national board, the ARRT certification exam

Program Description
Sanford Health offers a 24-month program in radiography, affiliating with the campus of enrollment, NDSU or University of Jamestown, to provide a challenging, high-quality educational experience. You will learn to work with state-of-the-art equipment currently available, as well as equipment commonly used across the country. Sanford Health is committed to providing the spectrum of healthcare services with the latest technology and with a staff who exemplify Sanford Health’s mission – dedicated to the work of health and healing
Accreditation

Sanford Health Radiology Program is accredited by the Joint Review Committee for Educational Programs in Radiologic Technology, the only organization recognized by the U.S. Department of Education to evaluate and accredit education programs in radiography.

Curriculum

An average of 40 hours a week, Monday through Friday, 7:30 - 4:00, will be spent in the program. This will include the clinical and classroom time. During weekly rotations, you will gain experience in all areas of diagnostic radiology. There are no weekend or holiday rotations.

During the second year of clinical training, students will participate in advanced imaging rotations to include MRI (Magnetic Resonance Imaging) and CT (Computed Tomography). Each student will spend nine (9) weeks in MRI and nine (9) weeks in CT for a total of 18 weeks in the advanced modalities.

Fall/Spring Term (August-May) First Year

Course Name
Orientation/Medical Imaging Standards/
Introduction to Radiation Protection/BLS
Ethics and Legal Issues
Positioning I and II
Image Analysis I and II
Principles of Exposure
Radiation Physics I and II
Clinical I and II
Quality Assurance/Processing
Patient Care

Summer Term (May-August) First Year

Course Name
Advanced Patient Care/Imaging Pharmacology/
ACLS
Introduction to Specialty Areas — MRI, CT,
Nuclear, Medicine, Ultrasound and
Radiation Therapy
Clinical III
Fall-Spring Term (August-May) Second Year

**Course Name**
- 40 Hour Mammography Workshop (optional)
- Digital Image Acquisition and Display
- Radiation Protection/Biology
- Cross Sectional Anatomy
- Pathophysiology
- Trauma Radiology
- Pediatric/Geriatric Radiology
- Advanced Procedures and Image Analysis
- Management/Health Care Infrastructure
- Advanced Imaging Equipment
- Clinical IV and V
- Elective Rotations

Summer Term (May-August) Second Year

**Course Name**
- Registry Review/Professionalism
- Independent Study Project
- Clinical VI

Approximately 3,760 clock hours will be obtained in clinical rotations and classroom for the twenty-four month internship. Four weeks vacation is scheduled per year and 48 hours of personal leave are included in the 24 months.

**Evaluation**

As you proceed through the program rotations, you will be evaluated in each clinical area by the clinical staff, the clinical instructor, faculty and the program director. Course work is graded on a four-point scale. Clinical performance is evaluated using a competency based evaluation system and performance appraisal forms.

**Graduate Requirements**

Sanford Health Radiology Program grants a diploma to qualified students. The campus of attendance awards the radiologic science degree to students successfully completing the requirements. To successfully complete the degree, the student must complete the following from Sanford Health Radiology Program.

- A total of 60 term hours of upper division courses.
- Achievement of the student educational outcomes.
- A cumulative GPA of 3.00 with no grade less than a “C” in any course taken.
Graduation and Certification

Students who successfully complete the program receive a certificate from Sanford Health Radiology Program. The degree is granted by the campus of attendance following the completion of their requirements for graduation. Graduates are eligible to write the National Registry Examination administered by the American Registry of Radiologic Technologists.

Tuition and Expenses

Tuition is to be paid to the campus of enrollment. Registration policies are to be followed in accordance to their schedules. It is up to you to contact your advisor on campus to determine if you are in compliance with the campus registration and fee payment. You are to follow their refund policy. Tuition for Sanford Hospital is $1500 for the twenty-four month internship, to be paid the first term. This is in effect Fall, 2014. There is a no refund policy for the $1500 tuition paid directly to Sanford health.

Books, BLS, ACLS and developmental tests are provided without charge.

You are responsible for providing your own living accommodations and transportation to Sanford Health. Designated parking areas will be provided by Sanford Health.

You must purchase your own gray scrub attire. White tennis shoes or white uniform shoes are to be worn.

Sanford Health Radiology Program does not provide Professional Liability Insurance for students. Liability insurance is provided for the student during the program’s two year period by the campus of enrollment.

Student Responsibilities

- You are expected to attend all scheduled classes and assigned clinical rotations unless you are on approved absence.
- You must maintain a “B” average in your academic and clinical performance.
- Acceptable professional and ethical conduct is required at all times.

Faculty

Sanford Health Radiology Program faculty include program director, clinical instructor, clinical staff, radiologists and guest lecturers from imaging services. You will have direct access to these individuals throughout the two years with the opportunity to learn from experienced, qualified staff.
 Technical Standards

Radiographers perform x-ray examinations on patients in a variety of clinical settings. These examinations can vary from a simple hand x-ray to an examination of the kidneys following injection of a contrast media. Radiographers perform complex procedures in surgery and utilize portable radiographic units in the hospital Emergency Room and Trauma setting. Examinations are performed on patients of all ages. To perform their required duties, radiographers must have sufficient strength, motor coordination and manual dexterity to:

- Lift more than 50 pounds routinely.
- Work with their arms above their head routinely.
- Push and pull, bend and stoop, and kneel routinely.
- Transport, move, lift and transfer patients from a wheelchair or cart to an x-ray table or to a patient bed.
- Move, adjust and manipulate a variety of radiographic equipment, including the physical transportation of mobile radiographic machines, in order to arrange and align the equipment with respect to the patient and the image receptor according to established procedure and standards of speed and accuracy.

Radiographers must be capable of:

- Handling stressful situations related to technical and procedural standards and patient care situations.
- Providing physical and emotional support to the patient during the radiographic procedures, being able to respond to situations requiring first aid and providing emergency care to the patient in the absence of, or until the physician arrives.
- Communicating verbally in an effective manner in order to direct patients during radiographic examinations.
- Reading and interpreting patient charts and requisitions for radiographic examinations.

The radiographer must have the mental and intellectual capacity to:

- Calculate and select proper technical exposure factors according to the individual needs of the patient and the requirements of the procedure’s standards of speed and accuracy.
- Review and evaluate the recorded images for the purpose of identifying proper patient positioning, accurate procedural sequencing, proper radiographic exposure, and other appropriate and pertinent technical qualities.
Policies

The following policies affect applications and appointments to the program:

- Fluency in written and spoken English is essential for success in the program and to ensure patient safety.
- An applicant must be a citizen of the United States or hold a U.S. permanent immigrant visa.

If accepted into the program, one month before start date an e-mail will be sent to each student from the Student Experience Coordinator with the following attachments:

1) HIPPA Training
2) Immunization verification form for proof of immunity to measles, mumps, rubella and varicella (chicken pox) through either vaccination or titer.
3) Documentation of TB test results, dated on or after one year prior to start date
4) Either the dates Hepatitis B vaccination or a signature on the Hepatitis B declination statement.
5) Vocational training insurance consent form
6) Student orientation to Sanford Health information
7) Proof of Health Insurance

All the completed forms and supporting documentation are to be returned to the Coordinator prior to start date.

Admission Requirements

Sanford Health Radiology Program is open to all candidates who have satisfactorily completed the initial two years of the baccalaureate curriculum established by the campus of enrollment. In order to apply to the program, applicants must have a GPA of 3.0 or higher. An ACT score of 18 or higher allows a higher rating in the selection scoring.

The program does not accept part time or transfer students.
Application Process

Sanford Health Radiology Program is committed to upholding all federal and state laws that preclude discrimination on the basis of race, color, sex, age, religion, national origin, marital status, sexual orientation, disabilities or veteran’s status. A maximum of six students will be accepted on a competitive basis each year. Classes begin mid-August.

To apply to Sanford Health Radiology Program, please submit:

- A completed Sanford Health Radiology Program application form found on website.
- Official copies of transcripts in envelopes sealed by the registrar from all postsecondary schools attended after high school. A 3.00 or above GPA is required.
- ACT or SAT scores.
- A description of several personal and professional goals you would like to achieve in the next five years and a description of why these goals are important to you.
- A description of characteristics, attitudes, values and/or skills that you think make you a good candidate for your professional role.

Your application and all supporting documentation must be received by the first week of January of the year you wish to begin classes. If you are considered for an appointment, you will be scheduled the second week in January for a personal interview with the program director and an interview committee. Student selection is made by the Admissions Committee on the basis of grade-point average, science and math courses completed, past experiences in the health care setting, personal interviews, and ACT/SAT scores. Up to six students are selected for admission each year. Selected applicants will be notified by email one week following interview. If the student does choose Sanford Health Radiology Program, a letter of acceptance with a $250 acceptance fee is required.

For further information, contact the program at:
(701) 412-4201
Sanford Medical Center
Route 2751
801 North Broadway
Fargo, ND 58122-0714
stephen.cooper@sanfordhealth.org
Sanford Health Radiology Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).
20 North Wacker Drive, Suite 2850
Chicago, Illinois 60606-3182
(312) 704-5300
e-mail: mail@jrcert.org

The student application form, brochure, student handbook and annual outcome data are found on the Sanford website: www.Sanfordhealth.org keyword Radiology Program.

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