

The Field of Radiologic Technology

Radiologic Technology is a complex science that uses radiation as a diagnostic and treatment tool. This science has grown considerably from its discovery in 1895. This continual growth has created a great demand for competent men and women to work as technologists in the fields of medicine, computer technology, industry, and research.

How Can I Become a Radiologic Technologist?

To become a certified radiologic technologist you must successfully complete a program of study that is approved by the Joint Review Committee on Education in Radiologic Technology. Programs operating in the State of New Jersey must also be approved by the NJ State Department of Environmental Protection, Radiologic Technology Board of Examiners. Admission into the Capital Health School of Radiologic Technology requires you to have a high school diploma or its equivalent as well as several pre-requisite college courses. The application process includes an aptitude examination, evaluation of previous educational records, letters of recommendation, and an interview process. A strong background in math and science is helpful in preparation for a career in radiology. Along with didactic coursework, programs offer clinical experience with sick and injured patients under the supervision of qualified radiologic technologists and program officials. The American Registry of Radiologic Technologists (ARRT) offers certification for radiologic technologists. In addition, a number of States use ARRT-administered exams for State licensing purposes. To be eligible for certification, technologists must graduate from an ARRT-approved accredited program and pass an examination.

What Can a Radiologic Technologist do After Graduation?

The radiologic technologist plays an important role on the medical team. A licensed and certified technologist is qualified to work in hospitals, doctors' offices, imaging centers, public health projects, and medical clinics. As a skilled technologist, you assist the Radiologist in the examination of bones, organs, and different diseases. You operate and adjust the x-ray equipment for specific examinations, position the patient correctly, make the required exposure, and process the radiographs all while minimizing radiation dose to the patient. Most radiology departments today use digital imaging equipment to obtain radiographs. In hospitals, mobile x-ray equipment is used in the emergency room, the operating room, and at the patient's bedside. Your responsibilities may include maintaining x-ray processing equipment, adjusting computer images for transfer to the PACS system, and keeping patient's records in compliance with State law and HIPAA regulations. In addition, you are responsible for the psychological, physical comfort and privacy of the patients in your care.

Is there any Room for Growth in Radiology?

Radiology or Medical Imaging continues to be a field with a promising future. Several branches include Nuclear Medicine, Radiation Oncology, Ultrasound, Special Procedures, Computerized Axial Tomography (CT Scan), Magnetic Resonance Imaging (MRI), and Radiologist Assistants. Other specialty areas are Bone Densitometry, Mammography, Quality Management, PET scanning, and PACS administration. These areas along with management, education, and sales positions make Radiology a dynamic field with great growth potential.

The **American Registry of Radiologic Technologists (ARRT)** has instituted primary certification boards in Radiography, Nuclear Medicine Technology, Radiation Therapy, Sonography and Magnetic Resonance Imaging as well as post-primary certifications in Computed Tomography, Cardiac-Interventional Radiography, Vascular-Interventional Radiography, Mammography, Bone Densitometry, Quality Management, Magnetic Resonance Imaging, Sonography, Vascular Sonography, Breast Sonography, Bone Densitometry and Registered Radiologist Assistant.

After radiology education, what do I have to do to work in these specialty areas?

Cardiac Interventional Radiography

is a specialized area of Radiology that involves image guided procedures to help diagnose and treat heart and the blood vessel diseases without surgery. Procedures include angioplasty, stenting, thrombolysis, embolization, ablation, and biopsies. Many institutions offer on the job training.

Radiation Therapy

requires an additional year of schooling. As a Radiation Therapist, you assist the Radiation Oncologist and Physicist in the coordination of a treatment plan used for cancer patients. Along with treating the patient by exposing diseased areas of the body to radiation, you are also responsible for keeping records of the radiation treatments and providing excellent patient care.

Nuclear Medicine

requires additional schooling. As a Nuclear Medicine Technologist, you operate sophisticated and computerized monitoring equipment used to trace the function of a specific organ like the heart. A radiopharmaceutical is injected into the patient. The technologist then uses a special camera to detect the radiation emitted and an image is created on the computer screen.

Magnetic Resonance Imaging (MRI)

resonant frequency properties of atoms are used within a magnetic field to image anatomic and/or physiologic conditions of the body. Residency programs are available for those interested in pursuing advanced education in this field.

Sonography

is another specialty of medical imaging that requires additional schooling. Using sound waves, the technologist can produce an image of certain organs so the radiologist can locate an existing disease or condition. The field is especially useful in obstetrics because it does not use radiation.

Computed Tomography (CT)

has revolutionized the field of radiology. The technologist uses x-ray equipment that produces computer-enhanced images to provide the physician with cross-sectional, detailed information about the patient. CT Technologists provide images that are not possible with general radiography. Several schools offer specialized training in CT or technologists can be trained on the job.

Radiologist Assistants (RA)

are Registered Radiologic Technologists who have obtained Master's degrees and advanced certification that qualifies them to serve as assistants to the radiologist. This is a relatively new and exciting career path in the field of Radiology.

PACS Administrator

are usually people with both a radiology and a computer technology background. These highly skilled individuals are responsible for the equipment that acquires, transmits, stores, retrieves and displays digital images and related patient information from a variety of imaging modalities and communicates the information via a computer network.