



Radiology

BLENDING HIGH TECH WITH HIGH TOUCH

Focus on education for life



Meet Melissa Jackowski, radiology education specialist at WakeMed. As one of a few hospital-based radiology educators in the country, Melissa spends her time working with the more than 200 radiology staff members at WakeMed to ensure that they are getting the continuing education they need, along with

tracking their results. Staff members are a valued resource on the radiology team and it's Melissa's job to help them succeed in their career. She knows the importance of radiologic technology and how it impacts patients' lives.

The Radiology department at WakeMed performed over two

“Radiologic technology is a perfect career choice for those who like challenges and are also caring, compassionate individuals

million procedures last year using the most state-of-the-art technology and procedures available today. Staff work closely with physicians in a very cooperative environment. They also place a great value on attracting and retaining quality employees. In addition to Melissa's work, a career ladder has been established within the department offering technologist the opportunity to advance their career.

Interested?

Learn more about radiologic technology and about becoming a radiologic technologist, visit these websites or contact these resources:

- www.asrt.org - American Society of Radiologic Technologists
- www.arrt.org - American Registry of Radiologic Technologists

North Carolina Community College System offers five programs nearby:

- www.wake.tec.nc.us - Wake Technical Community College, Raleigh
- www.johnston.cc.nc.us - Johnston Community College, Smithfield
- www.pitt.cc.nc.us - Pitt Community College, Greenville
- www.edgecombe.cc.nc.us - Edgecombe Community College, Rocky Mount
- www.faytech.cc.nc.us - Fayetteville Technical Community College, Fayetteville
- www.unc.edu -The University of North Carolina at Chapel Hill is the area's only four-year program

Many hospitals have two-year programs. You can find a complete listing at www.jrcert.org

For more information about the profession or program at WakeMed, contact Melissa Jackowski, radiology education specialist at 919-350-5694 or mjackowski@wakemed.org

Deciding what you want to do in life is a difficult decision. Where can you find a career that will offer you a chance to work with advanced technology and make a good salary? What about if that career choice also offers job security, and you the opportunity to work in almost any location across the country? Plus, you would feel good helping people every day on the job. Sounds too good to be true, but it's not. The field of radiologic technology — also called imaging services — is that and much more.

Right now, more than 75,000 additional radiologic technologists will be needed in the United States by the year 2010. This cutting-edge profession can offer you an exciting and ever-changing career filled with endless opportunities!

It's all about the future

Radiology is not just about someone behind an x-ray machine taking a picture of your broken leg or sprained ankle. It is much more than that now. Advances in imaging technology have made radiologic technology one of the most exciting — and rapidly advancing — fields in medicine. The procedures provide the physician with valuable information in determining a diagnosis or course of treatment.

Radiologic technologists often specialize in a particular diagnostic imaging area:

- Bone Densitometry Technologists use a special type of x-ray equipment to measure bone mineral density at a specific anatomical site (usually the wrist, heel, spine or hip) or to calculate total body bone mineral content. Results can be used by physicians to estimate the amount of bone loss due to osteoporosis, to track the rate of bone loss over a specific period of time, and to estimate the risk of fracture.
- Cardiovascular-Interventional Technologists use sophisticated imaging techniques such as biplane fluoroscopy to help guide catheters, vena cava filters, stents or other tools through the body. Using these techniques, disease can be treated without open surgery.
- Computed Tomography (CT) Technologists use a rotating x-ray unit to obtain “slices” of anatomy at different levels within the body. A computer then stacks and assembles the individual slices, creating a diagnostic image. With CT technology, physicians can view the inside of organs — a feat not possible with general radiography.
- Magnetic Resonance (MRI) Technologists are specially trained to operate MR equipment. During an MRI scan, atoms in the patient's body are exposed to a strong magnetic field. The technologist applies a radiofrequency pulse to the field, which knocks the atoms out of alignment. When the technologist turns the pulse off, the atoms return to their original position. In the process, they give off signals that are measured by a computer and processed to create detailed images of the patient's anatomy.
- Mammographers use special x-ray equipment to produce diagnostic images of breast tissue to screen for breast cancer and other breast abnormalities.
- Nuclear Medicine Technologists administer trace amounts of radiopharmaceuticals to a patient to obtain functional information about organs, tissues and bone. The technologist then uses a special camera to detect gamma rays emitted by the radiopharmaceuticals and create an image of the body part under study. The information is recorded on a computer screen or on film.
- Quality Management Technologists use standardized data collection methods, information analysis tools and data analysis methods to monitor the quality of processes and systems in the radiology department. They perform processor quality control tests, assess film density, monitor timer accuracy and reproducibility and identify and solve problems associated with the production of medical images.
- Radiographers use radiation (x-rays) to produce black-and-white images of anatomy. The images are captured on film, computer or videotape. X-rays may be used to detect bone fractures, find foreign objects in the body, and demonstrate the relationship between bone and soft tissue. The most common type of x-ray exam is chest radiography.
- Sonographers use sound waves to obtain images of organs and tissues in the body. During an ultrasound examination, the sonographer places a transducer in contact with the patient's body. It emits high-frequency sound waves that pass through the body, sending back “echoes” as they bounce off organs and tissues. Special computer equipment converts those echoes into visual data.
- Radiation Therapist works on the radiation oncology team. Radiation oncology uses high doses of radiation to treat cancer and other diseases.



How do you become a radiologic technologist?

There are several ways to become a radiologic technologist; however, entrance into radiography schools is getting more and more competitive. There are several school options:

- Two-year hospital-based certificate program
- Two-year associate's degree programs at a community or technical college
- Four-year BS program at a college or university

There are nearly 1,000 accredited programs in the United States, with several located throughout the state. In all of the programs, your time is spent in the classroom and in clinical settings where you will gain hands-on experience to learn the equipment and work side-by-side with doctors, nurses and experienced radiologic technologists. During this part of your education, known as clinical rotation, you'll have the opportunity to practice your patient care skills and fine-tune your technical knowledge.

After training, you will need to take an exam to become certified through ARRT (American Registry of Radiologic Technologists) and complete yearly education requirements to maintain your registration.

Prepare while still in high school

If you're thinking about becoming a radiologic technologist, start preparing now. Most schools require high school biology, chemistry and at least Algebra I as preliminary requirements. It's also important that you contact your school of choice to determine if there are other requirements and to get suggestions for an increased likelihood of being accepted. For instance, some programs give applicants extra “application points” for volunteering in a radiology department.

A career full of growth and opportunity

Radiologic technology offers so many opportunities for long-term job growth. You can:

- Specialize in nuclear medicine, mammography, ultrasound, CT, interventional or radiation therapy and work in a variety of settings: hospitals of all sizes, free-standing outpatient facilities, academic based research facilities and more
- Become a radiologic technology educator on staff at a hospital or at a college
- Move into departmental management
- Work for an imaging equipment designer or manufacturer in a variety of positions
- Focus on information systems or quality assurance

Plus, it's a mobile career with jobs available in almost every part of the United States. The demand is so strong that every location — from small towns to large metropolitan areas — needs good technologists. For example, you could work in a large hospital, a suburban outpatient clinic or a rural physician's office.

And beyond being a career in demand, most hospitals and clinics have a flexible work environment allowing technologists to design the schedule that fits their lifestyle. Most facilities offer varied or rotating shifts, weekend options or part-time opportunities.

A competitive starting salary

The average starting salary for a certified radiologic technologist is about \$35,000 annually, depending on location. If you specialize, you can begin at an annual salary of more than \$40,000.

Salary ranges depend on your career track, the setting you choose to work in and whether you live in a large metropolitan area where salaries are typically higher.



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