

Pre-Radiography

Career and Major Information

Related Career Titles

Web Sites

Salary Information

This curriculum is designed for the student who plans to apply for admission to the radiography program at ETSU. Two years of course work at Walters State plus two years of study in the radiography program are required.

Career and Major Information:

Radiologic technologists and technicians take X-rays and administer nonradioactive materials into patients' bloodstreams for diagnostic purposes. Some specialize in diagnostic imaging technologies, such as computerized tomography (CT) and magnetic resonance imaging (MRI).

In addition to radiologic technologists and technicians, others who conduct diagnostic imaging procedures include cardiovascular technologists and technicians, diagnostic medical sonographers, and nuclear medicine technologists. (Each is discussed elsewhere in the Occupational Outlook *Handbook*.)

Radiologic technologists and technicians, also referred to as *radiographers*, produce X-ray films (radiographs) of parts of the human body for use in diagnosing medical problems. They prepare patients for radiologic examinations by explaining the procedure, removing articles such as jewelry, through which X-rays cannot pass, and positioning patients so that the parts of the body can be appropriately radiographed. To prevent unnecessary exposure to radiation, these workers surround the exposed area with radiation protection devices, such as lead shields, or limit the size of the X-ray beam. Radiographers position radiographic equipment at the correct angle and height over the appropriate area of a patient's body. Using instruments similar to a measuring tape, they may measure the thickness of the section to be radiographed and set controls on the X-ray machine to produce radiographs of the appropriate density, detail, and contrast. They place the X-ray film under the part of the patient's body to be examined and make the exposure. They then remove the film and develop it.

Experienced radiographers may perform more complex imaging procedures. For fluoroscopies, radiographers prepare a solution of contrast medium for the patient to drink, allowing the radiologist (a physician who interprets radiographs) to see soft tissues in the body. Some radiographers, called *CT technologists*, operate CT scanners to produce cross-sectional images of patients. Radiographers who operate machines that use strong magnets and radio waves, rather than radiation, to create an image are called *MRI technologists*.

Radiologic technologists and technicians must follow physicians' orders precisely and conform to regulations concerning the use of radiation to protect themselves, their patients, and their coworkers from unnecessary exposure.

In addition to preparing patients and operating equipment, radiologic technologists and technicians keep patient records and adjust and maintain equipment. They also may prepare work schedules, evaluate purchases of equipment, or manage a radiology department.

Related Career Titles:

Respiratory Therapists
Radiation Therapists
Nuclear Medicine Technologists
Diagnostic Medical Sonographers
Cardiovascular Technologists and Technicians
General Laboratory Technologists and Technicians

Web Sites:

American Society of Radiologic Technologists, 15000 Central Ave. S.E., Albuquerque, NM 87123-3917. Internet: <http://www.asrt.org>

For the current list of accredited education programs in radiography, write to:

Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Dr., Suite 2850, Chicago, IL 60606-3182. Internet: <http://www.jrcert.org>

Salary Information:

Median annual earnings of radiologic technologists and technicians were \$43,350 in May 2004. The middle 50 percent earned between \$36,170 and \$52,430. The lowest 10 percent earned less than \$30,020, and the highest 10 percent earned more than \$60,210. Median annual earnings in the industries employing the largest numbers of radiologic technologists and technicians in May 2004 were:

Medical and diagnostic laboratories	\$46,620
General medical and surgical hospitals	43,960
Offices of physicians	40,290

Salary figures quoted are based on national figures. Local or regional salaries may be lower.

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2006-07 Edition*, Radiologic Technologists and Technicians, on the Internet at <http://www.bls.gov/oco/ocos105.htm>

