

# **Radiation Technology**



### **Overview of Programs**

## **PROGRAMS OFFERED**

AS • BS • MS • Certificate

The School of Allied Health Professions at Loma Linda University offers a number of programs in the medical imaging field. Besides Medical Radiography, we offer programs in Computed Tomography, Imaging Informatics, Magnetic Resonance, Nuclear Medicine, Sonography, Radiation Therapy, and Dosimetry. We also offer the following degree online: Bachelor's and Master's degrees in Radiation Sciences, a Bachelor's degree in Healthcare Administration, and a Master's degree in Radiologist Assistant.

#### Medical Radiography (AS)

The AS in Medical Radiography is a 21-month/40-hr-perweek program where students complete academic instruction, develop a program portfolio, and gain over 1,950 clinical hours of Radiography experience. It is a full-time program with no arrangements for part-time or evening status. The program begins each September.

#### Health Care Administration (BS - online)

Health Care Administration is a broad-based discipline. The BSHA program prepares individuals to support healthcare professionals such as clinicians, researchers, and executives in settings such as assisted living and skilled nursing facilities; rehabilitation centers; private, public, and proprietary clinics; and medical centers.

#### Nuclear Medicine (BS)

Nuclear Medicine is the medical specialty that utilizes the nuclear properties of radioactive and stable nuclides to make diagnostic evaluations of the anatomic or physiologic conditions of the body. The skills of the Nuclear Medicine technologist complement those of the Nuclear Medicine physician and of other allied health professionals.

#### **Radiation Sciences (BS - online)**

The Bachelor of Science degree program, which begins at the level of the junior year, emphasizes the more advanced areas in radiologic technology and is designed to prepare graduates for careers in administration, clinical specialities, informatics, science, or teaching by providing a core curriculum that is coupled with an area of emphasis (track) that the student chooses.

#### **Radiation Sciences (MS - online)**

Developing aptitude in the disciplines of leadership, administration, and education is key for career advancement. Practitioners who are leaders in the profession, and who are capable of serving the greater community in the public, private, and nonprofit sectors, have a higher degree of opportunity and flexibility in their careers. The 49 unit/24month program begins each September. An accelerated 12-month track is available for qualified students upon department approval.

#### **Radiologist Assistant (MS - online)**

The Radiologist Assistant (RA) is an advanced clinical role for an ARRT-certified radiographer. The Masters of Science program gives the student didactic and clinical mentoring in neonatal, pediatric, adult, and geriatric populations. Courses will be a mix of discussion, projects, case studies and web-based learning. Students are responsible for finding their own clinical site and radiologist mentor.

Track 1 The program starts one a year in the Summer and is 11 quarters in length.

**Track 2** The program starts once a year in late September and is 7 quarters in length.

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#### Cardiac & Vascular Imaging (Certificate)

Cardiac Interventional (CI) and Vascular Interventional (VI) technologists work in a highly specialized field operating sophisticated imaging equipment. This technology provides detailed fluoroscopic images of the human body, assisting physicians with quality patient diagnosis and treatment. The Cardiac and Vascular Imaging Program is a full-time, twelve-month certificate program that requires four quarters beginning in the autumn. During the program, students take formal coursework along with clinical instruction. There are no arrangements for part-time or evening status.

#### **Computed Tomography (Certificate)**

Computed Tomography (CT) is a medical imaging modality that produces cross-sectional images of the body using X-rays and digital computers in order to identify pathological conditions that are difficult to evaluate through conventional radiography alone.

#### **Diagnostic Medical Sonography (Certificate)**

Sonography is a diagnostic medical procedure that uses high frequency sound waves (ultrasound) to produce dynamic visual images of many parts of the body, such as the abdomen, heart, and blood vessels.

#### **Dosimetry (Certificate)**

Medical Dosimetrists plan treatment dose calculations for a variety of external beam and brachytherapy treatments. Dosimetry combines knowledge of math, physics, and the biological and medical sciences. Medical Dosimetrists must have excellent analytical skills, an ability to critically evaluate data, and an aptitude for physics and math. They must also be able to work closely as a team with physicists, physicians, radiation therapists and other hospital personnel.

#### **Imaging Informatics (Certificate)**

The Certificate in Imaging Imformatics provides the radiologic technologist with skills necessary to functions as a PACS (Picture Archival Communications System) administrator. The Program focus is on: Informatics, PACS planning and implementation, administrative issues, and the management of PACS systems.

#### Magnetic Resonance Imaging (Certificate)

Magnetic Resonance Imaging (MRI) is a medical imaging modality that produces cross-sectional images of the body using a magnetic field, thus eliminating the use of ionizing radiation. MRI provides much greater contrast between the different soft tissues of the body than Computed Tomography (CT), making it especially useful when imaging the brain, heart, soft tissue and cancer.

#### **Radiation Therapy (Certificate)**

Radiation Therapy (or Radiation Oncology) is the medical use of ionizing radiation to treat cancer and control malignant cell growth. Radiation Therapy is commonly combined with other modes of treatment for cancer, such as surgery, chemotherapy, and hormone therapy. A new class in Radiation Therapy begins each Fall.

#### Radiologic Technology Advanced Placement (RTAP)

The Radiologic Technology Advanced Placement program consists of one clinical and five academic courses. Courses will be offered in any quarter which means that a student can start the program at any time. Most students will be able to complete the program by taking nine units; as it is common for most students to complete all of the clinical competencies within one clinical internship course. For students that need another quarter to complete the clinical requirements, they can take a second clinical internship course, thus making the program eleven units instead of nine units. Applications are accepted online year round for this program. Students complete this program with a qualification to sit for the ARRT board exam in Radiography.

# For more information, contact the Department of Radiation Technology:

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Website: http://www.llu.edu/allied-health/sahp/radtech/programs.page?

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### LLU at a Glance

Founded in 1905 >> A Seventh-day Adventist institution integrating health, science, and Christian faith >> Offers over 200 programs in the health sciences >> Houses eight schools: Allied Health Professions, Behavorial Health, Dentistry, Medicine, Nursing, Pharmacy, Public Health, and Religion >> About 4,000 students
> Over 1,300 faculty >> 2,000 professional researchers >> \$46 million dollars in private and public grants generated each year >> Many service learning opportunities

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