

# **Radiation Technology**



# Entry-Level Bachelor of Science in Radiation Sciences (Medical Radiography)

# Medical Radiography, Bachelor's Degree, and Emphasis Modality All in One!

Loma Linda University's Entry-Level Bachelor of Science in Radiation Sciences (BSRS) program is unique by providing students a pathway to obtain their ARRT certification in Radiography to become an x-ray technologist and to earn a bachelor's degree in Radiation Sciences geared towards entry-level supervision and education with an additional emphasis such as in CT or MRI—all in just three years!

# What is a Medical Radiographer?

The Medical Radiographer, also known as a Radiologic Technologist or X-ray Tech, is responsible for imaging body structures such as bones and soft tissue. The Radiographer's job is to position the patient, determine exposure factors, manipulate medical imaging equipment, evaluate radiographic image quality, provide patient comfort, and oversee patient and medical team radiation protection. Radiologic Technologists also assist in procedures that visualize the gastrointestinal and urinary tracks using radiographic contrast and fluoroscopy. See our website (<u>llu.edu/radiography</u>) for career videos to find out more about all the different professions within radiology that can be achieved with this degree.

#### Additional Career and Higher Education Possibilities:

The Entry-Level Bachelor of Science in Radiation Sciences (BSRS) degree provides students with the foundational education necessary to advance into various career possibilities and higher education beyond becoming a Medical Radiographer including:

- Additional modalities
- Graduate degree programs such as a master's degree in management, education, physician assistant, or radiologist assistant or even a clinical master's degree and doctoral degree programs to include medical school
- Professional advancement into entry management, education, and informatics positions
- Many more possibilities in imaging or public health

#### Entry-Level BSRS Areas of Emphasis:

Students have the ability to customize their bachelor's degree by choosing an area of emphasis (during year two) in which to focus their studies during year three of this program including:

 Administration & Education; Imaging Informatics; Advanced Medical Imaging (combines coursework from the two areas above with advanced imaging techniques); Special Imaging: CT/MRI, CT only, MRI only; Mammography with MRI; Cardiac Imaging; and Vascular Imaging

Loma Linda University and the Department of Radiation Technology cannot guarantee graduates gainful employment or passing a professional credentialing examination once a degree is completed. Once a graduate has exhausted their attempts or time to pass a professional credentialing exam, the Department of Radiation Technology is unable to have you repeat the program as a part of the remediation required to regain eligibility to sit for the professional credentialing examination. Please contact the program director for any questions regarding gainful employment or the professional credentialing examination.

#### **Program Goals:**

Upon completion of the program, the graduate should be qualified to:

- 1. Demonstrate clinical competence in medical radiography
- 2. Demonstrate the values and attitudes of an entry-level radiographer
- 3. Apply concepts from Institutional Learning Outcomes (ILOs)
- Investigate concepts of managers and educators who contribute to the imaging disciplines through service and leadership
- 5. Discuss leaders who advocate for excellence in patient care
- 6. Integrate concepts from chosen area of emphasis

#### Components of the Entry-Level BSRS Program:

- Loma Linda University's general studies requirements (General Education) for baccalaureate degrees (GE can be transferred into LLU prior to beginning the program or completed in the BSRS degree curriculum).
- Professional Core: The Medical Radiography curriculum: Years 1 & 2.
- The BSRS Program Core: Years 2 & 3.
- The BSRS Program Emphasis (selected in year 2): Year 3.
- The BSRS Program Portfolio: Part of the core curriculum, students will be required to complete an ePortfolio comprised of academic and professional work, a capstone project, and service learning (40 hours).

#### **Clinical Training and Essential Job Functions:**

We have clinical sites located in Loma Linda, Redlands, San Bernardino, Hemet, Palm Springs, Riverside, Apple Valley, Murrieta, Los Angeles, and the Imperial Valley. Students are expected to provide their own transportation during and throughout the program. Some clinical sites may involve a 60-mile drive from Loma Linda University. Students are responsible for all costs and availability of transportation. Students are assigned to their clinical site at the beginning of the program in a just and equitable way, mostly based on clinical site-student fit.

#### Where to Begin:

- 1. Review our website and FAQ page (<u>llu.edu/radiography</u>).
- 2. Attend a free online information session by registering on our website.
- Make sure you meet the prerequisite courses and units needed to begin the program (listed on the back of this brochure).
- 4. Apply online as a direct application (llu.edu/apply).

#### Application Window:

Applications are accepted between October 1 and May 1 with a priority deadline of February 15.

#### Interview & Application Requirements:

Applicants must complete a minimum of 45 quarter units (30 semester units) with a cumulative GPA of 2.5 or higher and a prerequisite GPA of 3.0 or higher, submit official transcripts, complete eight hours of career observation, provide three references, and submit an admissions essay. The application must be received by May 1 to be considered. Official transcripts can be submitted after applying but must be received to be considered for an interview even if courses are still in progress. More information is available on our website.

At this time this program is not eligible to accept International Students. For more information, please email intlstdsrv@llu.edu.

# alliedhealth.llu.edu

#### Curriculum:

I. General Education, Prerequisite, and Transfer Work (min. 45 quarter units):

- English Composition Sequence: Usually 2 semesters or 2-3 quarters in college
- Oral Communication, Interpersonal Communication, or Public Speaking: One quarter/semester in college
- Medical Terminology: One quarter/semester in college
- Human Anatomy and Physiology: Complete sequence, both with a lab
- Introductory or General Physics: One quarter/semester at the college level; no lab required
- General Education/Electives: Applicants will also need to complete a few non-remedial college courses in addition to the courses listed above prior to beginning the program to meet the minimum overall 45 quarter units (30 semester units) required to transfer. Recommended courses per LLU's general education requirements are outlined below. \*All the aforementioned courses (45 quarter units) should be completed by spring term before the program's autumn start. Any additional general education/elective courses wanting to be transferred in beyond the 45 quarter units required must be completed by the end of the summer term before the program's autumn start.

# Domain 1: LLU Religion (completed in the program)

**Domain 2:** Arts & Humanities (minimum of 16 quarter or 11 semester units in 3 different content areas selected from civilization/history, art/music, literature, language, philosophy, religion, or general humanities)

**Domain 3:** Scientific Inquiry & Quantitative Reasoning (minimum of 12 quarter or 8 semester units—domain fulfilled in its entirety with natural science prerequisites listed above and statistics completed in the program; no additional courses/units are needed in this domain)

**Domain 4:** Social Sciences (minimum of 12 quarter or 8 semester units in 2 different content areas selected from anthropology, economics, geography, political science, psychology, or sociology—cultural diversity requirement met in program) **Domain 5:** Written & Oral Communication (minimum of 9 quarter or 6 semester units—domain fulfilled in its entirety with the English composition sequence and communication prerequisites listed above; no additional courses/units are needed in this domain)

**Domain 6:** Health & Wellness (minimum of 2 quarter or 1 semester unit(s) with 1 course in health or nutrition required and 2 PE courses totaling a minimum of 1 quarter unit required)

# A minimum of 192 quarter units overall are required between transfer and program coursework for LLU's baccalaureate degree (program will provide over 200 quarter units).

# Additional Program Requirements:

Applicants are required to complete a background check and possess a current Health Care Provider CPR card offered by the American Heart Association upon admission into the program. To remain in the program, students must maintain a 2.5 GPA, pass three program milestones, and adhere to the program's professional code of conduct. Students at some clinical sites may need a drug test.

# **Financial Information:**

Tuition and fees are subject to change each year, so please review LLU's Find a Program website for the most up-to-date information on the cost of attendance. Students should be prepared to be responsible for all tuition, fees, books, living expenses, and transportation. Financial aid is available. Loan application can begin before being accepted. For financial aid information, call 909-558-4509 or e-mail finaid@llu.edu.

# Housing:

Students under the age of 21 who are in undergraduate programs are required to live on campus unless they are married or living with their parents. A student who desires to live off campus, but who does not meet the necessary qualifications, must file a petition with the Dean of Student Affairs in advance of registration by calling 909-558-4510.

# Program Core (117 units):

Radiography Professional Core	42 units
Bachelor Core	30 units
Religion	12 units
Clinical Affiliation	33 units

# II. Areas of Emphasis:

You may choose one of the following for your area of emphasis:

# Administration and Education (37 Units)

Those looking to be an administrator or educator and working towards a master's degree would be ideal candidates for this emphasis.

#### Imaging Informatics (PACS Administration) (37units)

Those that have a passion for computers and IT would be ideal candidates for this emphasis. There are pathways to become a member of the PACs team within a radiology department.

# Advanced Medical Imaging (37 units)

This emphasis is a combination of coursework from the two emphases above. The ideal candidate for this emphasis is someone who wants to have an advanced career in radiography.

# Special Imaging CT and MRI (34 units)

CT (37 units) and/or MRI (36 units):

Special imaging technologists work in a highly specialized field operating sophisticated imaging equipment. They provide detailed cross-sectional images of the human body, assisting physicians with quality patient diagnosis and treatment.

# Cardiac Imaging (36 units)

The fast-paced world of cardiac interventional radiology is a great pathway for a future technologist in this arena.

#### Vascular Imaging (36 units)

The fast-paced world of vascular interventional radiology is a great pathway for a future technologist in this arena.

#### Mammography with MRI (36 units)

The trends in mammography are leading towards an exciting profession with the use of many other new technologies in the important work of detecting breast cancer and other diseases early.

Total in Program Units:	179-181 (46-47% online)
Program Units:	209-213

#### Eligibility for ARRT Certification(s):

Eligibility for the ARRT certification exam may be affected if the applicant has a prior felony or misdemeanor conviction. Prior to applying to this program, the applicant should contact the ARRT at (651) 687-0048 to determine if eligibility will be granted.

#### Accreditation:

Loma Linda University is regionally accredited by the Western Association of Schools and Colleges, Accrediting Commission for Senior Colleges and Universities. The Medical Radiography program at Loma Linda University holds a specialty accreditation by the Joint Review Committee on Education in Radiologic Technology, 20 North Wacker Drive, Suite 2850, Chicago, IL 60606-3182, 312-704- 5300. The program is also approved by the Radiologic Health Branch (RHB) of the state of California, Department of Public Health, MS 7610, P.O. Box 997414, Sacramento, CA95899-7414, 916-327-5106.

#### Program Directors:

Professional Core Program Director: Will Edmunds, M.Ed., RT(R) BSRS Program Core Program Director: Timothy Seavey, Ed.D., RT(R)(CT)

#### **Contact Information:**

E-mail: <u>studyradsci@llu.edu</u> Office: (909) 558-4931 www.llu.edu/radiography

Updated 07/12/2023



# 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, Behavioral 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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