

# MEDICAL RADIOGRAPHY, ASSOCIATE OF APPLIED SCIENCE



## Program Information

A radiologic technologist is qualified in providing patient services using a variety of imaging equipment. The typical duties of the radiologic technologist include performing radiologic procedures for diagnostic interpretation, providing patient care, applying principles of radiation protection, evaluating radiographic images for technical quality, and applying professional judgment.

The San Jacinto College Medical Radiography program:

- Educates and trains students for entry-level employment in radiography through on-site rotations in area hospitals and clinics;
- Teaches students to be clinically competent, possess critical thinking skills, communicate effectively, both written and verbal, and act professionally making ethically sound decisions; and
- Trains students in appropriate patient care, how to accurately set technical factors for radiographic examinations, demonstrate proper radiation safety, demonstrate the ability to modify imaging examinations for non-routine patients as well as critique images for diagnostic quality.

## Program Accreditation

The Medical Radiography program at San Jacinto College is accredited by:

The Joint Review Committee on Education in Radiologic Technology  
20 North Wacker Dr., Suite 2850  
Chicago, IL 60606-3182

Phone: 312-704-5300  
Email: [mail@jrcert.org](mailto:mail@jrcert.org)  
Web: [www.jrcert.org](http://www.jrcert.org)

Length of Accreditation: 8 years  
Most Recent Site Visit: 9/2023

## Career Opportunities

Employment outlook is excellent, and many of our students gain employment in the field within 6-12 months of graduation.

Graduates of this program are employed in hospitals, clinics, and imaging centers.

## Additional Information

Students are admitted on a competitive basis because clinical space is limited. Those seeking admission should first apply to San Jacinto College and gain acceptance to the College.

The Medical Radiography program holds information sessions throughout the year for those interested in the program. For dates and times of these information sessions, you can call the Medical Imaging department at 281-476-1871 or look for times posted on the San Jacinto College Radiography webpage (<https://www.sanjac.edu/programs/areas-of-study/health/medical-imaging/med-rad-admission-info/>). Attendance at an information session is required prior to application to the program. Program admission criteria and the selection process are explained at the information session.

## Earning Potential

Radiologic Technologist: \$76,589<sup>1</sup>

<sup>1</sup> Source: [texaswages.com](http://texaswages.com) (<http://texaswages.com>), median salary Gulf Coast region, 2023

For more information, students may contact 281-476-1871.

## Campus

Central Campus

## Information

Medical Imaging Technology consists of three associate of Applied Science (AAS) degrees and three certificate programs.

The AAS degree programs are:

- Medical Radiography,
- Diagnostic Medical Sonography, and
- Magnetic Resonance Imaging.

The advanced or enhanced certificate programs are:

- Computed Tomography,
- Magnetic Resonance Imaging, and
- Mammography.

Students enrolling into San Jacinto College programs with external learning experiences (i.e., clinical, practicum, externship, cooperative, etc.) will be required to comply with the immunization requirements and policies of the clinical/external learning sites to engage in all clinical/external learning experiences. Vaccination requirements at clinical/external learning sites are implemented pursuant to the independent authority of such facilities and are not mandated by San Jacinto College. Failure to meet the immunization requirements mandated by clinical/external learning sites may limit a student's ability to complete the program and/or may delay the student's graduation date. San Jacinto College does not process exemptions, and students should address potential vaccination exemptions directly with the clinical/external learning site.

# Medical Radiography

## Purpose Statement

The purpose of the Medical Radiography program is to prepare students for entry level employment in the field of radiography with the knowledge, skills, and values to be a successful member of the health care community.

The Medical Radiography program is committed to excellence in providing a comprehensive educational experience.

The program curriculum is a balance of general education and technical courses, as well as supervised clinical/practicum experience at local hospitals and clinics. The Medical Radiography courses utilize both theory and competency-based educational components designed to prepare the student to become a radiologic technologist specializing in radiography. A radiologic technologist utilizes radiation to produce images of anatomical structures in the body.

Upon successful completion of the Medical Radiography program, the student is granted an AAS degree, is eligible to apply for the certification examination given by the American Registry of Radiologic Technologists (ARRT), and may obtain a license from the Texas Medical Board.

The program effectiveness goals of the Medical Radiography program are as follows:

1. Graduates will pass the national certification examination on the first attempt.
2. Graduates will be gainfully employed.
3. Students will complete the program within five semesters of acceptance.
4. Employers will be satisfied with program graduates.
5. Graduates will be satisfied with the quality of their education received.

## Student Goals and Student Learning Outcomes

The student goals for the Medical Radiography program are as follows:

**Goal 1: Students will be clinically competent. Students will integrate appropriate patient positioning, patient care, radiation protection, equipment manipulation, and the knowledge and skills to produce diagnostic radiographic images in order to demonstrate clinical competence.**

Student learning outcomes:

1. Students will apply the knowledge and skills to provide appropriate patient care.
2. Students will accurately set technical factors to provide quality radiographic images consistent with the needs of the exam.
3. Students will properly position patients for radiographic examinations.
4. Students will employ proper radiation safety methods consistent with the principles of As Low As Reasonably Achievable (ALARA) for the protection of the patients, staff, self, and general public.

**Goal 2: Students will develop critical thinking skills. Students will execute proper application of the critical thinking skills necessary to provide quality radiographic images in a variety of health care situations.**

Student learning outcomes:

1. Students will modify routine imaging procedures for non-routine or trauma examinations contributing as an effective member of the health care team.
2. Students will accurately critique images for appropriate anatomical demonstration and diagnostic quality.

**Goal 3: Students will communicate effectively. Students will display competence in assessing clinical or professional situations and employ appropriate verbal and nonverbal communication skills consistent with the needs of the patients, staff, and peers.**

Student learning outcomes:

1. Students will communicate verbally with patients and other health care professionals to meet patient and exam needs.
2. Students will display effective written communication skills consistent with the situation.

**Goal 4: Students will model professionalism. Students will practice professional standards of conduct, demonstrate unrestricted care regardless of patient attributes and condition, and employ ethically sound decisions.**

Student learning outcomes:

1. Students will analyze various health care scenarios to appropriately recognize and apply ethically sound decisions.
2. Students will exhibit professionalism by delivering unrestricted patient care regardless of various patient differences including age, gender, race, creed, social, cultural or economic status, abilities, personal attributes, or the nature of the health problem.

## Admission requirements

The Medical Radiography program is a selective admission program. A limited number of students are admitted into the program three times a year. Class size is determined by the availability of clinical space. Limited enrollment ensures a quality laboratory and clinical experience needed to become a competent entry level radiographer.

In accordance with Texas House Bill 1508, the College informs all students in this program who may have a criminal background that a criminal history could keep graduates from being licensed by the state of Texas. Students with any questions about their background and licensure may speak with the Program Director.

Students selected for any of the Medical Imaging programs are required to submit a physical exam prior to admission. This physical exam must be consistent with the requirements of the teaching hospitals and agencies to which the student is assigned during clinical assignments and with the performance standards required to function as a student imaging technologist. The exam will also include documentation of any communicable diseases along with immunity to Rubella, Measles, Mumps, Varicella, and Hepatitis B. Additionally, completion of an updated Tetanus vaccine, an annual TB screening, and a seasonal flu vaccine is required. Clinical affiliates may require additional immunizations, titers, and documentation.

In addition to meeting all other requirements, a criminal background check and drug and alcohol screening are required for all health science students attending imaging courses and are required prior to admission to the program. Students entering a Medical Imaging program will also be required to show proof of health insurance and current CPR (American Heart Association-Health Care Provider) certification. Students

may contact the Medical Imaging department for details regarding the criminal background check and drug screening requirements.

To be considered for selection to the Medical Radiography program, students must complete the following steps:

1. Be admitted to San Jacinto College. Students may visit the website at <https://www.sanjac.edu/admissions/how-to-apply/> (<https://www.sanjac.edu/admissions/how-to-apply/>).
2. Provide Official Transcripts
  1. Students with any transfer credits must have college transcripts analyzed by San Jacinto College (enrollment services transcript evaluation) prior to submitting an application.
  2. The Medical Imaging Department Chair has final approval of all transferred courses that apply toward the degree in Medical Radiography.
  3. Transcripts from other colleges must be official and sent to:
    - a. Office of Enrollment Services, and
    - b. Medical Imaging department (submitted with online application)
3. Completion of all of the following prerequisite courses with a minimum grade of a C before admission to the program.

Code	Title	Credits
RADR 1201	Introduction to Radiography	2
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
BIOL 2301	Anatomy and Physiology I (Lecture)	3
BIOL 2101	Anatomy and Physiology I (Lab)	1

The following general education courses are required prior to completion of the program and also require a minimum grade of a C.

- PSYC 2301 General Psychology
- A course from Language, Philosophy, and Culture (Humanities) and Creative Arts (Fine Arts) in the College Core Curriculum (<https://publications.sanjac.edu/general-information/educational-programs/basics-core-curriculum-general-education-outcomes/>) (<https://publications.sanjac.edu/general-information/educational-programs/basics-core-curriculum-general-education-outcomes/>)

In order for credit earned in a required biology course to be applied to the Radiography program, credit must have been earned within five (5) years of the first term in which the student enrolls in the program and with an earned grade of a C or above. In order for credit earned in a required RADR 1201 Introduction to Radiography course to be applied to the Radiography program, credit must have been earned within three (3) years of the first term in which the student enrolls in the program and with an earned grade of a C or above.

Higher level math such as Calculus may be evaluated for possible substitution if a student was placed out of College Algebra. Substitutions must be approved by the Department Chair and Dean of Health and Natural Sciences.

Completion of the program required entrance examination (HESI A2) must be submitted with application. A cumulative score of 70% and a score of 70% in each section is highly recommended.

4. Attend a mandatory information meeting as posted on the San Jacinto College Radiography program webpage (<https://www.sanjac.edu/programs/areas-of-study/health/medical-imaging/med-rad-admission-info/>) or by calling 281-476-1871 for dates.

5. Submit a Medical Radiography program application by the posted deadline.

## Selection Criteria

Students who apply for admission to the Medical Radiography program will be selected based on the total score on the application rubric to include both GPA and HESI A2 entrance examination scores. Meeting minimal entry requirements does not guarantee program admission. The program admission scoring rubric is available on the Program webpage (<https://www.sanjac.edu/programs/areas-of-study/health/medical-imaging/med-rad-admission-info/>).

## Transfer Students

Course work from another radiography program will be evaluated on an individual basis by the Program Director, Department Chair, and the Admission Appeals Committee. A grade of C or better is required on all transferred prerequisite, general education, and program-specific courses. Transfer students must obtain letter from current Program Director verifying good standing academically and ethically. Transfer from another program will require a one-time entrance didactic and skill competency exam based on program progression level. Transfer student must have been enrolled in a medical radiography program within 2 semesters of requested transfer. Transfer student must meet all criteria required of San Jacinto College Medical Radiography Program students and complete at least 50% of the program at San Jacinto College. Transfer students from another program will be admitted on a space-available basis.

## Student Progression

If a student earns a grade of D, W, or F in a Medical Imaging (RADR) course, the student will not be permitted to continue or to graduate from the program until that course has been repeated and a grade of C or above has been earned. Three grades of D, F, or W in any combination from a RADR course will cause permanent suspension from the Medical Radiography program. A student may appeal his/her suspension with the Medical Radiography Appeals Committee.

## Plan of Study

### 3MED-RAD

Prerequisites		Credits
RADR 1201	Introduction to Radiography	2
ENGL 1301	Composition I	3
BIOL 2301	Anatomy and Physiology I (Lecture)	3
BIOL 2101	Anatomy and Physiology I (Lab)	1
MATH 1314	College Algebra	3
<b>Credits</b>		<b>12</b>
First Term		
RADR 1203	Patient Care	2
RADR 1411	Basic Radiographic Procedures	4
RADR 2209	Radiographic Imaging Equipment	2
RADR 1160	Clinical - Radiologic Technology/Science - Radiographer	1
<b>Credits</b>		<b>9</b>

**Second Term**

RADR 2401	Intermediate Radiographic Procedures	4
RADR 2236	Special Patient Applications	2
RADR 1313	Principles of Radiographic Imaging I	3
RADR 1266	Practicum	2
<b>Credits</b>		<b>11</b>

**Third Term**

RADR 1267	Practicum	2
RADR 2331	Advanced Radiographic Procedures	3
RADR 2313	Radiation Biology and Protection	3
RADR 2205	Principles of Radiographic Imaging II	2
<b>Credits</b>		<b>10</b>

**Fourth Term**

RADR 2340	Sectional Anatomy for Medical Imaging	3
RADR 2233	Advanced Medical Imaging	2
RADR 2266	Practicum	2
PSYC 2301	General Psychology	3
RADR 1202	Radiographic Image Evaluation I	2
<b>Credits</b>		<b>12</b>

**Fifth Term**

RADR 2267	Practicum	2
Language, Philosophy and Culture (Humanities) or Creative Arts (Fine Arts)		3
RADR 2335	Radiologic Technology Seminar	3
RADR 2217	Radiographic Pathology	2
<b>Credits</b>		<b>10</b>
<b>Total Credits</b>		<b>64</b>

**Capstone Experience: Eligible for American Registry of Radiologic Technologists National Certification Exam.**

Students must earn a C or better in all courses in the plan of study; the student will not be permitted to continue or to graduate from the program until all courses reflect that a grade of C or above has been earned.