MEDICAL IMAGING, MAGNETIC RESONANCE IMAGING, ADVANCED TECHNICAL CERTIFICATE

Program Information

Are you fascinated by technology and the inner workings of the human body? If so, a career in computed tomography, mammography, or Magnetic Resonance Imaging (MRI) may be the right path for you. These imaging professionals are qualified to provide patient imaging using technology and equipment for CT, mammography, and MRI under the supervision of a medical doctor to examine anatomic structures.

The San Jacinto College Advanced Imaging Modality programs:

- Prepare the American Registry of Radiologic Technologists (ARRT) or American Registry for Diagnostic Medical Sonography (ARDMS) registered students to work in advanced modality positions in hospitals and other health care facilities through various clinical rotations;
- Educate students to produce images used for assessment and diagnosis of various medical conditions; and
- Encourage students to be clinically competent, possess critical thinking skills, communicate effectively, and exhibit ethical and professional behavior.

Career Opportunities

Employment outlook is excellent, and many of our students gain field employment before completing this certificate program.

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

Earning Potential

Magnetic Resonance Imaging Technologists : $85,852 per year[1]

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

For more information, students may contact 281-476-1871 or advancedimagingmodalityprograms@sjcd.edu

Links

Application procedures; students must:

- Apply for admission to San Jacinto College;
- Submit an application for the Advanced Imaging Modality program; and
- Submit copies of transcripts from the Radiography or Sonography program completed.

Must be a registered technologist with ARRT certification or a registered sonographer with ARDMS certification by the first class date to participate in the program. Must hold a minimum of an associate degree in an imaging technology. Students may review the links on the Advanced Imaging Modalities (https://www.sanjac.edu/programs/areas-of-study/health/medical-imaging/advanced-imaging-admission-info/) webpage for program information for all Advanced Imaging Modality programs and programs applications.

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.

Advanced Technical Certificate

The MRI program builds a foundation of general principles for learning to operate magnetic resonance imaging equipment. The program focuses on building a sound understanding of the underlying scientific theory and routine clinical practice leading to the MRI certification exam. The MRI program also emphasizes the fundamental principle of magnetism and interaction of living matter with magnetic fields as well as introducing the concepts and scientific principles employed in MRI.

Purpose Statement

The purpose of the Magnetic Resonance Imaging Advanced Technical Certificate Program is to prepare students possessing certification with the American Registry of Radiologic Technologists (ARRT) or

American Registry of Diagnostic Medical Sonography (ARDMS) for entry level employment in the field of magnetic resonance imaging with the knowledge, skills, and values to be a successful member of the health care community.

The program is committed to excellence in providing a comprehensive educational experience. The program curriculum is a balance of technical didactic courses, as well as supervised clinical experience at local hospitals and clinics. The program courses utilize both theory and competency-based educational components designed to prepare the student to become a magnetic resonance imaging technologist.

Upon successful completion of the Magnetic Resonance Imaging Advanced Technical Certificate Program, the student is eligible to apply for the certification examination given by the American Registry of Radiologic Technologists (ARRT).

The program effectiveness goals of the Magnetic Resonance Imaging Program are as follows:

1. Graduates will pass the national certification examination on the 1st attempt.
2. Graduates will be gainfully employed.
3. Students will complete the program within 3 semesters of program admission.
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 goals for the Magnetic Resonance Imaging program are as follows:

Goal 1: Students will demonstrate clinical competency.

1. Students will apply magnetic safety measures.
2. Students will produce magnetic resonance images of acceptable diagnostic quality.

Goal 2: Students will develop and apply critical thinking.

1. Students will adapt magnetic resonance procedures for nonroutine situations.
2. Students will critique images for diagnostic quality.

Goal 3: Students will develop and apply critical thinking.

1. Students will communicate effectively as a part of the health care team.
2. Students will be able to communicate through written correspondence pertaining to health care.

Goal 4: Students will model professionalism.

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.

Minimum Program Admission Criteria

Applicants must hold a minimum of an associate degree in a radiologic science field of study or diagnostic medical sonography and be registered with the American Registry of Radiologic Technologists (ARRT) in radiography, nuclear medicine, radiation therapy, sonography, or vascular sonography or registered with the American Registry for Diagnostic Medical Sonography (ARDMS) in sonography or vascular sonography. The applicant must complete and submit an the online application to the Medical Imaging department. Upon provisional acceptance, the applicant must also submit required health records, proof of health insurance, CPR certification (American Heart Association-Health Care Provider), criminal background check, and drug and alcohol screen as stated for all Medical Imaging students. Acceptance into the MRI program is determined after review of the application and completion of requirements. Application to the program does not guarantee acceptance due to limited clinical availability. Prospective participants should call the Medical Imaging department at 281-476-1871 for additional information.

Students selected for any of the Medical Imaging programs are required to submit a physical exam after they have received provisional acceptance to the program. The department will provide instructions. This physical exam must be consistent with the requirements of the teaching hospitals and agencies the student is assigned during clinical assignments and 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. Completion of an updated Tetanus, an annual TB screening, and the current seasonal flu vaccine are required. In addition to meeting all other requirements, students entering a Medical Imaging program will be required to submit a criminal background check and drug and alcohol screening completed by designated companies, show proof of health insurance, and CPR (American Heart Associate-Health Care Provider) certification. Clinical affiliates may require additional immunizations, titers, and documentation.

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 Department Chair.

Plan of Study

AMRAD-MRI

First Term		**Credits**
RADR 2340	Sectional Anatomy for Medical Imaging	3
MRIT 2330	Principles of Magnetic Resonance Imaging	3
MRIT 1471	MR Imaging Procedures (MRI Procedures-Local Needs)	4
MRIT 2260	Clinical I - Radiologic Technology/Science - Radiographer (New Course)	2
	Credits	**12**
Second Term		
MRIT 2334	Magnetic Resonance Equipment and Methodology	3
MRIT 2355	Magnetic Resonance Imaging Physics	3
MRIT 2461	Clinical II - Radiologic Technology/Science - Radiographer	4
	Credits	**10**
Third Term		
MRIT 2462	Clinical III - Radiologic Technology/Science - Radiographer	4

MRIT 2274	MRI Pathology	2
MRIT 2375	Magnetic Resonance Imaging Technology Seminar	3
	Credits	**9**
	Total Credits	**31**

Capstone Experience: MRIT 2375 Magnetic Resonance Imaging Technology Seminar

Students must earn a C or better in all Magnetic Resonance Imaging (MRIT) and Medical Imaging (RADR) courses and maintain an overall cumulative GPA of at least 2.0 to remain in and/or graduate from the program. The College will award students either the Medical Imaging, Magnetic Resonance Imaging, Associate of Applied Science degree or the Medical Imaging, Magnetic Resonance Imaging, Advanced Technical Certificate, but not both.