

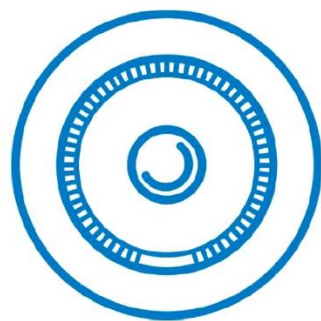


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Tesla Institute of MRI Technology



TESLA INSTITUTE OF MRI TECHNOLOGY

An introduction to Tesla MRI and its evolving offerings | **2024**

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PARTNERING FOR PROGRESS.

Our story



ARRT Accreditation

American Registry of Radiologic Technologists

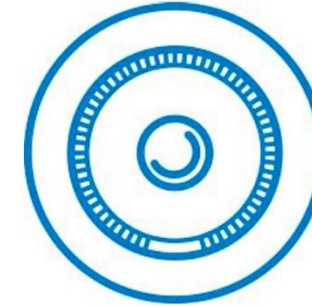
- **Founded:** 1922
- **Modalities:** Offers certifications for all modalities; MRI since 1995
- **Details:** ARRT is a more traditional and well-known path, as it requires an associate's degree (or higher) in the radiologic field. Accrediting agencies includes ASRT & JRCERT.



ARMRIT Accreditation

American Registry of MRI Technologists

- **Founded:** 1995
- **Modalities:** Specifically focused on MRI (no other modalities)
- **Details:** ARMRIT is a modern and accessible path, as it's skills-based and provides a direct shot for any high-school graduate to become an MRI Technologist.



Tesla Institute

Tesla Institute of MRI Technology, Inc.

- **Founded:** 2017; re-launch in 2021
- **Modalities:** Specifically focused on MRI (no other modalities)
- **Details:** Tesla MRI is focused on addressing MRI talent challenges from all angles. Currently ARMRIT accredited, Tesla MRI expects ARRT approval via ASRT in 2024.

Our program exceeds requirements for both ARRT and ARMRIT



Our growing relationships span the U.S.

Imaging



Hospital



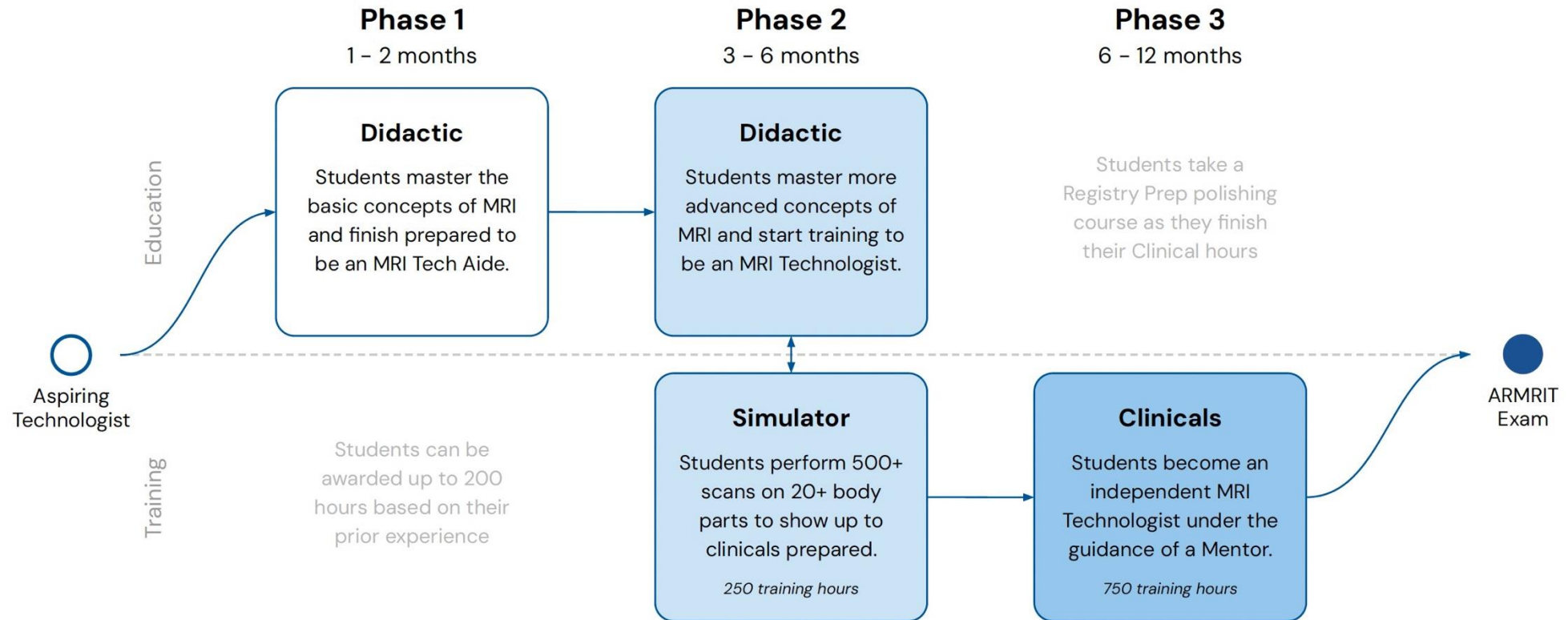
Specialty



With strong partnerships with the **Department of Labor**, **Department of Defense**, **Dallas College**, and more...



Our approach: Education, simulation, clinical rotation



Our program is async and self-paced to be more accommodating, but all students must complete the program within 12 - 18 months.



Our curriculum is comprehensive and rigorous

Phase I	Description	Phase II	Description
<i>Program Introduction</i>		<i>Review of Phase I</i>	
1	Fundamentals of Healthcare MRI Technology overview, history, HIPAA, etc.	13	Instrumentation II Gradients: physical/logical, encoding types, etc.
2	Anatomy & Physiology Foundations of Human A&P	14	Instrumentation III Surface coils: applications, designs, safety, etc.
3	Subatomic Principles Core principles of MRI, Larmor Equation, etc.	15	Pulse Sequences I Spin Echo, main parts, TR / TE, scan time, SNR, etc.
4	MRI Instrumentation I Magnets: hardware, types, functionalities, etc.	16	Cross Sectional Anatomy II MSK comprehensive advanced anatomy
5	MRI Safety I Magnet field safety, cryogen safety, Zones I - IV, etc.	17	Pulse Sequences II Inversion Recovery/Fast/Turbo SE, Gradient Echo
6	MRI Safety II RF field safety, RF burns, implant clearance, etc.	18	Image Quality I Scan Time vs. SNR vs. Spatial Resolution
7	Procedures & Set-up I Neuro scanning setup and basic anatomy	19	Image Quality II Artifacts: types, causes, steps to correct/reduce, etc.
8	Procedures & Set-up II MSK scanning setup and basic anatomy	20	MRI Safety III GBCA Agents: principles, applications, and safety
9	Procedures & Set-up III Body scanning setup and basic anatomy	21	Cross Sectional Anatomy III Body comprehensive advanced anatomy
10	Patient Care & Management Bill of Rights, HIPAA, ethics, vitals, IV insertion, etc.	22	MR Angiography Principles, methodology, techniques, anatomy, etc.
11	Cross Sectional Anatomy I Neuro comprehensive advanced anatomy	23	Advanced Applications I EPI: principles, physics, applications, etc.
12	Contrast Mechanisms T1/T2/Proton Density, magnetization, weighting, TR/TE	24	Advanced Applications II Spectroscopy: principles, physics, applications, etc.
<i>Phase I Final Review & Exam</i>		<i>Mock Registry Exam</i>	

To progress through didactic work, students must watch recorded videos, complete modules, read materials, attend live lectures, and pass quizzes.





Operationalizing The Tesla Approach

The experience at UM Shore Regional Health Imaging

Apprenticeship Concept

- May 2022 – Jim Mengel and Robin Crum talked with me about the remote learning opportunity for Tesla Institute to train MR techs
- We signed on to be a clinical site
- Jim and I continued to talk about the apprenticeship concept
 - Allows us to train current, excellent staff
- How could we implement an apprenticeship for current MR Imaging Assistants so they could remain SRH full-time, benefitted employees while doing didactic and clinical training for the ARMIRIT



Apprenticeship Concept

- Jim engaged with the Maryland Department of Labor about the apprenticeship programs available
- There are many options. All pay the apprentice while they are training.
- This didn't allow us to maintain the full-time employment and benefits for those team members. They needed to continue to be paid by SRH.
- If the apprenticeship payments would have been able to be directed to Shore Regional Health, we could have worked it out
- We loved the idea of an apprenticeship and worked to create our own program



UMMS Goal

- UMMS Strategic Plan had several employee engagement and retention goals that we focused on in building our program.
 - Provide system-wide growth and development opportunities for all team members and expand organizational learning competencies to improve quality of care, team member engagement, satisfaction and retention.
 - Leverage education affiliations. Be more intentional in retaining trainees within the system.



SRH MR Internship Program

- If someone has been an MR Imaging Assistant in our department for at least a year, with an excellent performance record, we open our MR Internship to them.
- They must be actively enrolled in the Tesla Program and have completed all the requirements to be ready to enter clinical education.
- We promote them to MR intern and maintain their full-time, benefitted employment during the 8-12 months of clinical training.
- They sign a promissory note to pay back the training, or work at least 2 years for us



SRH MR Internship Program

- The didactic portion is their full responsibility – financially, time-wise
- During their training, we are in constant contact with Tesla Educators regarding status and successes.
- We mutually determine readiness for clinical training and promotion to MR Intern
- We have successfully trained 2 MR Imaging Assistants and hired them as certified MR technologists.
- We have 2 more people in the pipeline.



Why would we do this?

- We believe in the goals of UMMS to engage and retain our great employees.
- The cost of the clinical training is less than the cost of recruiting an MR tech
- We gain a highly-engaged MR imaging assistant while they are in didactic education
- Our MR staff are challenged in a positive manner because they are actively educating, and the Intern can be a positive help in the clinical space given their Imaging Assistant experience at our various sites
- We can manage the program, and the costs, against open MR positions. We choose when we open the opportunity. Tesla is always there as a didactic partner, and our clinical site agreement is always available to the student as an unpaid clinical experience. We can open this program to reward excellent employees and offer great upward mobility and professional development to them.





Thank You!

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