



MAGNETIC RESONANCE IMAGING (MRI)

Advanced Technical Certificate

Magnetic resonance imaging uses a strong magnetic field and radio waves with computerized equipment to generate sectional images of patient anatomy. MR technologists use problem solving and critical skills to adapt procedural requirements to the patient and specific area of study. An MR technologist must be able to perform magnetic resonance procedures without constant supervision of technical detail. It is important that the technologist have a thorough knowledge of anatomy. Judgments about the MRI pulsing sequence, gradient magnetic fields and anatomic section orientation must be made independently and with regard to patient care and safety. Knowledge of the characteristics of magnetic fields, electromagnets and atomic structure is useful in this type of imaging. This advanced technology uses highly specialized equipment and requires specialized education and training.

Note

The Magnetic Resonance Imaging Program is a selective admission, limited enrollment program. Course content is presented online with the exception of clinical experience.

Potential Careers

- MRI Technologist

Potential Earnings

\$47,000 – \$50,000 per year

Contacts

Health Sciences Career Program Advisor

West Campus: 407-582-1288

For more information, visit our Website at:

valenciacc.edu/west/health

Typical Tasks May Include...

- Performing specialized magnetic resonance imaging procedures using magnetism and radio frequency wave scanning equipment
- Administering IV contrast media
- Applying knowledge of patient anatomy to position patient to capture appropriate images
- Protecting patients and self using magnet safety protocols
- Providing respectful care to patients

Potential Employers

MRI technologists are primarily employed in hospitals and diagnostic imaging centers. Opportunities are also available in private physicians' offices, industry, civil service and public health service facilities.

MAGNETIC RESONANCE IMAGING (MRI)

Magnetic Resonance Imaging

Advanced Technical Certificate

Limited Access

This program is designed for individuals who are currently certified in Radiography (ARRT) or Radiation Therapy (ARRT) or Nuclear Medicine Technology (ARRT or NMTCB) or Sonography (ARRT or ARDMS). Program content follows the American Society of Radiologic Technologists (ASRT) curriculum to prepare program completers to take the American Registry of Radiologic Technologists (ARRT) certification examination in Magnetic Resonance Imaging. Completion of this certificate program does not insure permission to take the credentialing examination. With the exception of the course RTE 2575L, program courses are offered online.

Magnetic Resonance Imaging is a limited access program. Admission to Valencia does not imply acceptance to the Magnetic Resonance Imaging program. Students must submit an application and be accepted to the program.

Admission requirements for the Advanced Technical Certificate in Magnetic Resonance Imaging are:

- Submit a completed Valencia Community College application
- Be currently certified in Radiography (ARRT) or Radiation Therapy (ARRT) or Nuclear Medicine Technology (ARRT or NMTCB) or Sonography (ARRT or ARDMS) or be registry-eligible in one of these modalities
- Submit current proof of CPR certification
- Submit a completed Valencia Magnetic Resonance Imaging application
- Applicantss must submit proof of employment in the area of certification for one of the above modalities within the past year.

Course	Title	Credits
+* RTE 2762	Sectional Anatomy	3
+* RTE 2575	Magnetic Resonance Imaging I	3
+* RTE 2576	Magnetic Resonance Imaging II	3
+* RTE 2575L	Magnetic Resonance Clinical Education	3
	Total Certificate Credits	12

NOTES:

All accepted applicants must be screened by the Florida Department of Law Enforcement for criminal history. Applicants for Valencia Community Collge Health Science Programs must be free of offenses that would disqualify them from a student clinical experience in a health care setting and must have their civil rights intact. This policy is in response to requirements by clinical agencies and State/Federal regualtions.

All certificate courses are offered on the West Campus.

Specialized courses may not be offered every session or on every campus.
+ This course must be completed with a grade of C or better.
* This course has a prerequisite; check description in Valencia catalog.

Valencia Community College

Advanced Technical Certificate in MAGNETIC RESONANCE IMAGING

ADMISSION CRITERIA

Admission to the Magnetic Resonance Imaging Program is limited to eligible applicants. Final selection may require a personal interview. *Applicants must be a United States Citizen or permanent resident to be eligible.*

Application requirements:

- _____ 1. Submit a completed college application for admission by the College Application Deadline. Visit Valencia's Web site at www.valenciacc.edu/admissions for specific information.
- _____ 2. Applicants must submit documentation of current certification in one of the following:
 - Radiography (ARRT)
 - Radiation Therapy (ARRT)
 - Nuclear Medicine Technology (ARRT) or (NMTCB)
 - Diagnostic Medical Sonography (ARRT or ARDMS)
 - **or** be registry eligible in one of the above modalities. **NOTE:** Students must be certified in one of the above modalities prior to completion of the CT program.
- _____ 3. Applicants must submit proof of employment in the area of certification within the past year. Documentation from employer must be on official letterhead with verification of employment and attached to the application.
- _____ 4. Submit proof of current CPR certification (AHA Healthcare Provider), current PPD, and immunization records for MMR (1 & 2), HBV (3), varicella, and tetanus.
- _____ 5. Submit a completed application and required documents, by July 1st (Fall Term), to the Health Sciences Advising office, building 2 room 208, west campus. A \$15 non-refundable Magnetic Resonance Imaging Program fee (check or money order payable to Valencia Community College) must be submitted to the Business Department with each application. **A new application is required if reapplying for admission.**

Please Note:

- Students accepted into the program will be notified of the **mandatory** program orientation meeting prior to the start of the term.
- After acceptance and prior to the start of the first semester of Magnetic Resonance Imaging courses, students will be notified of the process required to complete a background check and the deadline for the completion of the check. **Applicants with a positive background check may be denied continuation in the program.** The current fee is \$49.00 and the responsibility of the student. The Nationwide Criminal Search is an additional \$10.00 if needed.
- Applicants for Valencia Community College Magnetic Resonance Imaging Program must be free of offenses that would disqualify them from a student clinical experience in a health care setting and must have their civil rights intact. This policy is in response to requirements by clinical agencies and State/Federal regulations.
- Each applicant must be screened by the Florida Department of Law Enforcement for criminal history. Each applicant must have a Social Security Verification, Residency History, Nationwide Sexual Offense Registry Search, Nationwide Healthcare Fraud/Abuse Scan, and a US Patriot Act/OFCA search. A Nationwide Criminal Search is also required if the applicant has worked, resided, or has been a student outside of Florida during the 2 year period prior to the start of any Health Science Program at Valencia. Applicants having concerns regarding these requirements are encouraged to make contact with the Allied Health Program Advisor well in advance of the deadline date.
- If you have ever been convicted of a felony or misdemeanor, you must contact the American Registry of Radiologic Technologists (ARRT) to determine that you are eligible and to gain clearance to take the certification examination, before beginning the program. (651)-687-0048 or www.arrt.org

COURSE OFFERINGS BY SEMESTER

Courses are offered such that they can be assimilated into the employed professional's schedule. Sectional Anatomy and Magnetic Resonance Imaging I courses offered each Fall term and Magnetic Resonance Imaging II and Clinical Education are offered in each Spring term. If you are currently employed in MRI and are in the process of accumulating the ARRT required competencies, with appropriate documentation, you can achieve the requirements of the Clinical Education course and experiential credit can be granted.

MAGNETIC RESONANCE IMAGING CURRICULUM

Course	Title	Credits
+RTE 2762	Sectional Anatomy	3
+RTE 2575	Magnetic Resonance Imaging I	3
+RTE 2576	Magnetic Resonance Imaging II	3
+RTE 2575L	Magnetic Resonance Clinical Education	3
Total Certificate Credits		12

+ This course must be completed with a grade of C or better.

The following will be offered in Fall Term:

+RTE 2762	Sectional Anatomy	3
+RTE 2575	Magnetic Resonance Imaging I	3

The following will be offered in Spring Term:

+RTE 2576	Magnetic Resonance Imaging II	3
+RTE 2575L	Magnetic Resonance Clinical Education	3

ADMISSION PROCESS

Students must enroll in 2 courses per semester. Admission will be granted, with appropriate credentials, on a first come, first served basis. Class size is limited to 15. In the case of equivalent credentials, admission preference will be given to Orange and Osceola County residents.

CONTACT PERSON:

Health Sciences Program Advisor
healthscienceadvising@valenciacc.edu or (407) 582-1288
West Campus, Building 2 room 208

Valencia Community College reserves the right to make changes in admission criteria and program information as circumstances require, and is an Equal Opportunity Institution.

**MAGNETIC RESONANCE IMAGING PROGRAM
APPLICATION FOR ADMISSION**

Date of application: _____

Name (Last) _____ (First) _____ (Middle) _____
(Maiden) _____

VCC ID# (required) _____ Atlas Email: _____

Home Address _____

City, State, Zip, County _____

Telephone Number (Home/Day time): _____

Male _____ Female _____ Race _____ Birth Date _____

Are you a U.S. citizen? Yes No

Are you a Florida resident? Yes No

Have you applied to Valencia Community College? Yes No

In which of the following are you certified? **Attach copy of current certification/eligibility.**

- Radiography (ARRT)
- Radiation Therapy (ARRT)
- Nuclear Medicine Technology (ARRT or NMTCB)
- Diagnostic Medical Sonography (ARRT or ARDMS)
- Registry eligible in one of the above

Please attach documentation of employment verification within the past year in one of the above modalities.

Excluding this application, how many times have you applied for admission to this program?

THE MAGNETIC RESONANCE IMAGING APPLICATION AND DOCUMENTATION MUST BE SUBMITTED BY JULY 1ST TO BE CONSIDERED FOR ADMISSION TO THE FALL SESSION CLASSES. I HAVE READ AND UNDERSTAND THE PERFORMANCE STANDARDS NECESSARY TO BE A COMPETENT MAGNETIC RESONANCE IMAGING TECHNOLOGIST.

I AFFIRM THAT ALL INFORMATION ON THIS APPLICATION IS TRUE. I ALSO UNDERSTAND THAT IT IS FRAUDULENT TO MISREPRESENT ANY INFORMATION ON THIS FORM.

Signature

Date

HEALTH SCIENCE PROGRAM APPLICATION

A \$15 non-refundable application fee to the program (check or money order payable to Valencia Community College) must be submitted to the Business Office with **each** application.

By mail: Please mail application and check together to the address listed below. Do not send separately.

Valencia Community College
Business Office, SSB 101
1800 S. Kirkman Road
Orlando, FL 32811

In person: Please make payment to the Business Office **before** turning in your application to the Health Science Advising Office on the West Campus, building 2, room 208.

Finance Use

INDIVIDUALS WITH A DISABILITY

For the purpose of the Computed Tomography Program a “Qualified individual with a disability is one who, with or without reasonable accommodation or modification, meets the essential eligibility requirements for participation in the program.”

Computed Tomography is a practice discipline with cognitive, sensory, affective, and psychomotor performance requirements. Based on these requirements a list of “Performance Standards” has been developed. Each standard has an example of an activity or activities which a student will be required to perform while enrolled in the Computed Tomography program. These standards are a part of a professional role expectation.

These standards should be used to assist students in determining whether accommodations or modifications are necessary to meet performance standards. Students who identify potential difficulties with meeting the performance standards must communicate their concerns to the college counseling/advising staff and program director. The student has the obligation to identify and document the disabling condition and to ask for appropriate adjustments.

The department of Health Sciences at Valencia Community College makes no preadmission inquiries concerning an applicant’s disabling condition. Information related to an applicant’s disabilities is not a part of the information reviewed by the Admissions Committee.

Determination is made on an individual basis as to whether or not any accommodations or modifications can be reasonably made.

PERFORMANCE STANDARDS FOR ADMISSION AND PROGRESSION

ISSUE	STANDARD	EXAMPLES OF REQUIRED ACTIVITIES (NOT ALL INCLUSIVE)
Critical Thinking	Critical Thinking ability sufficient for safe clinical judgment.	<ul style="list-style-type: none"> * Identify cause-effect relationships in clinical situations. * Evaluate images to ascertain that they contain proper identification and are of diagnostic value. * Select exposure factors and accessory devices for all procedures with consideration of patient size, age, and extent of disease. * Assess patient's condition and needs from a distance of at least 20 feet. * Initiate proper emergency care protocols, including CPR, based on assessment data.
Interpersonal	Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural, and intellectual backgrounds.	<ul style="list-style-type: none"> * Establish rapport with patients, families, and colleagues.
Communication	Communication abilities sufficient for interaction with others in verbal and written form.	<ul style="list-style-type: none"> * Communicate in English to the patient in order to: converse, instruct the patient, relieve anxiety, gain their cooperation during procedures, understand the patient when communicating symptoms of a medical emergency. * Read the patient's medical chart and/or physician's orders. * Legibly write patient history. * Documents own actions and patient responses as indicated.
Mobility	Physical abilities sufficient to move from room to room and maneuver in small spaces.	<ul style="list-style-type: none"> * Assist all patients, according to individual needs and abilities, in moving, turning, transferring from transportation devices to the MRI couch, etc. * Be able to push, pull, and lift 40 pounds. * Push a stretcher, wheelchair or other transportation device without injury to self, patient, or others.
Motor Skills	Gross and fine motor abilities sufficient to provide safe and effective care.	<ul style="list-style-type: none"> * Accurately draw up sterile contrast media and other solutions without contaminating the syringe and/or needle, etc. * Physically be able to administer emergency care including performing CPR. * Calibrate and use equipment; position patients/clients
Hearing	Auditory abilities sufficient to monitor and assess patient needs, and to provide a safe environment.	<ul style="list-style-type: none"> * Hear a patient talk in a normal tone from a distance of 20 feet. * Hear monitor alarm, emergency signals, and cries for help.
Visual	Visual ability sufficient for observation and assessment necessary in the operation of equipment and care of patients.	<ul style="list-style-type: none"> * Observe the patient in order to assess the patient's condition and/or needs from a distance of, at least, 20 feet. * Can see numbers, letters, calibrations, etc. of varying sizes located on equipment utilized by an MRI technologist.
Tactile	Tactile ability sufficient for patient assessment and operation of equipment.	<ul style="list-style-type: none"> * Perform palpation, tactile assessment, and manipulation of body parts to insure proper body placement and alignment. * Manipulate dials, buttons, and switches.

**Cost of the Magnetic Resonance Imaging Program
2009/2010**

Approximate costs for instate students in the Magnetic Resonance Imaging Program include:

Tuition fees (\$77.83/cr. hr. x 12) *	\$ 933.96
Valencia Application Fee	25.00
MRI Program Application Fee	15.00
Background Fee	49.00
Physical Exam	150.00
Hepatitis Immunizations	150.00
Immunizations: PPD, MMR, Tetanus, Varicella	255.00
CPR Certification	45.00
Books (approximate)	68.00
Uniforms, lab coat, shoes	150.00
Liability insurance	34.00
Name badge	<u>10.00</u>
Approximate total	*\$ 1,884.96

** Current fees subject to change*

(To view current tuition fees, please visit, <http://www.valenciacc.edu/finanserv/fees.cfm>)

To be credentialed the graduate must successfully complete the following:

American Registry of Radiologic Technologists Examination for Magnetic Resonance Imaging	\$150.00
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Magnetic Resonance Imaging students will be responsible for furnishing transportation to the community and/or hospital facilities used by the college for clinical practice.